Education and Culture DG

The European Union and World Sustainable Development

VISIONS OF LEADING POLICY MAKERS & ACADEMICS

L'Union européenne et le développement durable du monde

LA VISION DES LEADERS POLITIQUE ET ACADÉMIQUES

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European Commission
Directorate-General for
Education and Culture
Jean Monnet Programme

Commission européenne
Direction générale de
l'éducation et de la culture
Programme Jean Monnet

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Editorial note

This book is the result of the Global Jean Monnet Conference on "The European Union and World Sustainable Development" that took place in Brussels on 5 and 6 November 2007.

The Conference was organised by the Jean Monnet Unit of the Directorate General for Education and Culture of the European Commission. It was attended by 516 registered participants from 43 countries. Participants came from Bangladesh, Brazil, Canada, Chile, China, Ecuador, Gabon, Palestine, Pakistan, the Philippines, Senegal, South Africa, Tajikistan and the United States, in addition to the EU Member States and Candidate Countries.

The variety of the nationalities of the Conference participants is a reflection of the worldwide nature of the Jean Monnet community. Launched in 1990, the Jean Monnet Programme aims to stimulate excellence in teaching, research and reflection in European integration studies at higher education institutions throughout the world. Jean Monnet professors are currently active in 60 countries on the five continents. The Jean Monnet community includes approximately 1850 professors, including 761 Jean Monnet Chairs, and 124 Jean Monnet Centres of Excellence.

The Jean Monnet Programme has facilitated global dialogue and provided policy guidance to the European Commission on numerous occasions in the past. Several concrete European Commission initiatives on such themes as the Euro-Mediterranean dialogue and the EU's Neighbourhood Policy have first been developed at Jean Monnet Conferences.

Most of the chapters in this book have first been presented orally during the Global Jean Monnet Conference of 5 and 6 November 2007. In addition, a limited number of written contributions that have been distributed at the Conference have also been included in this edited volume.

Odile Quintin

I. The European Union, World Sustainable Development & Academic Reflection: The View of the European Commission

Mr. José Manuel Barroso

Mr. Ján Figel'

José Manuel Barroso

President of the European Commission

Sustainable Developments: Europe Leads from the Front

Les débats que les responsables politiques européens ont avec vous, universitaires et chercheurs spécialistes de la "res europea", lors des conférences Jean Monnet, apportent un éclairage particulier et très enrichissant à la réflexion politique. On entend parfois dire ici ou là que l'action politique éloigne des réalités. Si c'est le cas, j'espère que vous nous ramènerez dans le droit chemin ! Le projet européen doit se nourrir d'idées qui ouvrent ses horizons. Je suis d'autant plus heureux de dialoguer avec vous aujourd'hui que nous nous rencontrons à un moment politiquement très important.

L'Union européenne avance. Au lendemain de l'accord conclu il y a quelques jours au Conseil européen, un traité de Lisbonne ratifié équipera l'UE pour lui permettre de mieux s'attaquer aux défis du 21e siècle et de réaliser encore plus efficacement ses politiques. La stratégie de Lisbonne pour la croissance et l'emploi améliore nos performances économiques. L'Union a pris un engagement historique en se saisissant des questions du changement climatique et d'une énergie sûre, compétitive et durable en Europe. Elle progresse aussi en établissant des relations nouvelles avec des partenaires clés dans son voisinage, en Afrique et ailleurs dans le monde. En clôturant son dernier élargissement en date, l'Union européenne a atteint une masse critique qui lui donne une dimension et une visibilité politiques nouvelles.

À quelques semaines de la conférence des Nations unies à Bali, le sujet qui va nous occuper aujourd'hui ne pouvait pas être mieux choisi: l'Union européenne et le développement durable à l'échelle mondiale.

Pour l'Union européenne, le développement durable n'est ni un alibi ni un effet de mode. Ce sont des principes – prospérité économique, justice sociale, protection de l'environnement et responsabilité internationale – auxquels elle adhère pleinement. Elle en a même fait un véritable mode de pensée. Le développement durable est une dimension cardinale de ses politiques intérieures. Mais l'Europe, paradigme d'ouverture et de solidarité, est tout sauf un camp retranché pour qui le développement durable s'arrêterait à ses frontières. Elle poursuit l'ambition de contribuer au développement durable du monde qui l'entoure. Parce que dans un monde toujours plus ouvert où les interpénétrations sont toujours plus importantes, le développement durable des uns n'exclut pas le développement durable des autres. Au contraire, il le renforce. La mondialisation nous rend interdépendants aussi dans notre développement durable.

Au fond, le développement durable pose à nos sociétés des questions collectives que je qualifierais "d'existentielles": quel est notre projet de société; quel avenir voulons-nous nous donner; comment voulons-nous vivre ensemble dans des sociétés de plus en plus multiculturelles et ouvertes; et sur quelles valeurs voulons-nous faire reposer notre relation aux autres? Ces questions interpellent bien sûr directement les responsables politiques, mais aussi vous, Mesdames et Messieurs, qui analysez de près l'intégration européenne.

Inside the Union today, we have built the main pillars of a general sustainable development policy. The first pillar is the Lisbon strategy for growth and employment. As an example, let me point to education, training, research and innovation – in other words, the knowledge-based economy – on which the Lisbon strategy relies to secure Europe's success in globalisation. Investing in knowledge is the first step in a proactive sustainable development policy.

The other pillars of Europe's sustainable development policy are our political priorities on energy and climate change, which I shall come back to later. Contributing to sustainable development also means preparing for the demographic challenge in an ageing Europe surrounded by neighbours whose population is expanding apace. It means equipping our Union to tackle the many different facets of its security, for example in the fields of health and energy. And it means laying the basis for the sound management of migratory flows, which is crucial for the future not only of the Union but also of our poorest neighbours.

In its external policy, Europe is fully and very actively engaged in the global partnership for sustainable development – the Johannesburg summit on sustainable development, the UN millennium development goals, the Monterrey consensus on financing for development and the Doha development agenda. This partnership combines economic growth with social development and environmental protection.

The EU believes that multilateralism is more necessary than ever if we are to find an appropriate response to the global challenges brought about by climate change, trade, development and migration, and to pursue global sustainable development. For example, the European Commission is advocating a strong global governance system for the environment. It is only through strong international institutions, particularly in the area of environmental governance, that we can tackle together the sustainability challenges of today.

In this overall context, it is a good time to assess how successful we have been in the European Union and what remains to be done.

I want to make it very clear that Europe is assuming its responsibilities. It is leading the way: leading by example and leading from the front.

Let us start with the first aspect of sustainable development: protecting the natural resources on which the economic and social development of future generations will be based.

Internally, I would like to point to a very important fact that is dramatically underestimated: the EU's major single contribution to global sustainable development is enlargement. Implementing the acquis of our Union in new Member States brings major environmental and social benefits as well as the prospect of economic prosperity.

The EU also practises sustainable development in the «management» of its policies, for example by integrating environmental concerns into all policy areas. To take a concrete example, the reform of the EU's agricultural and fisheries policies brought about a shift towards more sustainable agricultural and fisheries management in Europe.

So this is a firm policy choice we have made.

Externally, the European consensus on development that we adopted two years ago identifies the eradication of poverty in the context of sustainable development as the over-

arching objective of EU development policy. The Commission is striving to allocate 35% of its substantial development assistance to health and education activities. But poverty reduction also includes support for the environment and the sustainable management of natural resources, water and energy. I need not remind you that the Union and its Member States are the world's biggest donors of official development assistance. To date, our share has been 55%; in 2010 it will be 63%.

The EU has another powerful lever for encouraging sustainable development: its position as the largest trade bloc in the world. For example, why not use the dynamics of international trade to help resolve the problem of climate change? Investment and trade can spread expertise, qualifications and clean technologies throughout the world economy. European companies already export wind farms and solar panels to China!

In the Union's relations with Africa, to which I attach special importance, we are seeking to strengthen political cooperation at all levels, including an energy partnership and an EU-Africa partnership on climate change.

The second aspect of sustainable development, which is also a challenge, is to ensure the sustainability of consumption and production.

We live in a world where supply chains are increasingly global in nature. And, of course, environmental problems transcend national boundaries. Sustainable consumption and production is an opportunity for decoupling economic growth from ecological impact. Developed countries have a special responsibility to improve patterns of consumption and production. They have agreed to take the global lead on this issue. For example, the new EU chemicals regulatory system REACH makes a decisive contribution towards meeting the «Johannesburg goal» of ensuring the sound management of chemicals, with benefits for both health and sustainability.

Biodiversity trends in the EU and globally are a concern. We have committed ourselves to stemming the decline of biodiversity in Europe and internationally by 2010. Biodiversity is now a recurrent item at the top of the G8 agenda.

Our policies on agriculture, regional development or trade cannot ignore biodiversity and ecosystems. If we are to maintain our economic prosperity, we need to preserve over the long term the goods and services bestowed on us by ecosystems. We must keep in mind that biodiversity also has an economic value. It is obvious how dependent our society is

on the goods – raw materials, fuel, food – and the services – the food cycle, natural water purification processes, carbon sinks – that nature provides.

This leads me to the fight against climate change, which is of course a core dimension of sustainable development. Climate change is happening. And it poses a new and daunting threat to our societies and economies. It is also a threat to global security in terms of access to energy sources, of migrations and of potential conflicts for natural resources. And it puts intolerable pressure on development and on the reduction of poverty and hunger in the poorest countries of the world.

Considering this threat, Europe could not stand idle. Because there is an urgent need to act. But also because the fight against climate change has a moral, political and economic dimension.

First, economic activity over the past 50 years is responsible for a large share of greenhouse gas emissions. We and other industrialised countries have caused the problem. We therefore have a moral obligation to meet our fair share of the cost and to «climate-proof» the planet for those who follow us.

Second, there is no longer any excuse for inaction because we now have sound scientific data on the likely scale and impact of climate change.

Finally, anticipating problems is a much more cost-effective strategy than waiting for them to happen.

I am proud to say that the European Union is the prime mover on climate change. It was EU leadership which secured the final agreement on multilateral action to tackle climate change.

Internally, Europe has sized up the challenges and adopted a highly ambitious strategy that addresses two inseparable issues: energy and the fight against climate change. The strategy has three aims – sustainable development, security of supply and competitiveness – and has set three main targets: a 20% cut in greenhouse gas emissions, 20% energy efficiency gains and a 20% share for renewable energies in 2020.

The low-carbon economy will stimulate growth. More efficient use of energy will free up funds for useful expenditure. Using cleaner energy sources will have a positive effect on water and air quality and hence on health. Investment in innovation will boost know-how

in economic sectors and create sustainable jobs. Investment in energy efficiency and renewable energies will increase our energy security.

I believe this is a historic turning-point for Europe because it opens the way to a third industrial revolution. There is widespread consensus that we must pursue the road towards a low-carbon society. And we must do so on the basis of a shared vision, in Europe and beyond.

Fulfilling our Kyoto commitments is an important stepping stone towards a low-carbon society. The European Commission will soon be proposing a set of measures to strengthen further our emissions trading scheme, but also to increase energy efficiency in all sectors of the European economy and promote the use of renewable energy.

We are breaking new ground and taking a lead. Although Europe accounts for only 14% of world carbon emissions, it is taking action. But other parts of the world will also have to follow suit. This has to occur on a fair and proportionate basis, but also in a binding multilateral framework. The time has now come to make further progress at global level too.

Developing countries, and in particular emerging economies, must be encouraged to reduce the emission intensity of their economic growth. This will require new incentives and flexible types of commitment, as well as further transfer and deployment of climate-friendly technologies. There are encouraging signs that countries such as China, Brazil and India are ready to consider such measures.

This is important because we know very well that in a few years only, the greenhouse gas emissions from the developing countries will exceed those of the industrialised countries.

In our battle against climate change, we are not forgetting our partners in the developing world. The measures we take in Europe also serve the collective interest. For example, the European trading scheme for carbon dioxide emissions also benefits developing countries. It has generated EUR 20 billion of investment in projects to cut greenhouse gas emissions in those countries, while EU Member States have invested nearly EUR 3 billion in clean technology projects there.

In two days' time, the European Development Days in Lisbon will provide an opportunity to discuss the involvement of the developing countries in the global sustainable development agenda. We will launch a new project recently put forward by the Commission as

part of the EU's proposals for a «post-2012» international agreement on climate change: a Global Climate Change Alliance to help the developing countries most affected by climate change.

We have a common responsibility with developing countries, of course. But there can be no one size fits all policy when those who will suffer the most from global warming are also those who most lack the resources to counteract its effects.

Because they are particularly vulnerable, we want to help these countries adjust to the consequences of global warming without jeopardising the achievement of the Millennium Development Goals. But we also want to help build climate change into their poverty reduction strategies.

To take just two examples: the alliance will support innovative solutions to avoid deforestation, which accounts for 20% of global greenhouse gas emissions. By helping to preserve forests, we will maintain «sinks» to absorb carbon dioxide and do a favour to the entire planet. The Alliance will also help developing countries to take part in the world carbon market. This is a question of efficiency, but it is also a step towards a world carbon-trading network, which is our ambition.

If we help them in their adjustment to global warming and give them access to new technologies and mechanisms, I think the developing countries have a unique possibility to leapfrog a generation of technology and go directly to the low-carbon economy.

That is why I consider this Global Alliance as a very good example of the European way of thinking: vision, leadership and solidarity.

But it is first and foremost the industrialised countries to which Europe is appealing. If we can convince our industrialised partners to commit to comparable emission reductions after 2012, we in Europe propose to reduce our emissions by up to 30%. This is exactly what December's UN conference in Bali will be about. This will be the first real test of the international community's determination to translate political declarations into concrete action.

In the run-up to this major conference, the momentum for a joint campaign against climate change is picking up. The recent special UN General Assembly meeting on climate change sent a powerful political signal to the world in favour of sustainable development.

The creation of the International Carbon Action Partnership agreed last week by European countries, US States, New Zealand and Canadian provinces is a further positive sign.

What I can tell you is that, following the G8 Summit in Heiligendamm, the momentum is clearly with us, the European Union.

As far as the Bali conference is concerned, I would like to stress three points.

First, there is strong European unity around our position for the Bali meeting. The UN framework is the right way forward, centred as it is on binding mandatory targets for developed countries.

Second, the EU must continue to show leadership. This we will do when we bring forward balanced implementation measures in January.

Third, I am determined to keep up the pressure so that we can reach a global and ambitious agreement by 2009.

The next steps will be crucial. The window of opportunity we have now must not close. The world cannot afford the luxury of a setback in Bali.

La politique de développement durable cristallise d'une certaine manière la réponse à tous les enjeux du 21e siècle. Un jour, les historiens diront que l'Europe a été la première à en percevoir l'absolue nécessité. En signant le traité de Lisbonne, qui lui donne les moyens d'agir, l'Union s'est mise en ordre de marche pour prendre cette question à bras-le-corps. À elle maintenant d'en faire une ambition collective à l'échelle mondiale. Le développement durable est l'affaire de tous. Ce qui me rappelle cette phrase de Jean Monnet, d'une actualité plus saisissante que jamais: "L'heure n'est plus à tenter de gagner un avenir précaire aux dépens des autres"

Au contraire, gagnons un avenir plus sûr ensemble. Rendons irréversible la dynamique enclenchée et donnons-lui la puissance nécessaire pour mener à bien ce grand projet de notre génération. Je parlais de questions existentielles tout à l'heure: nous y sommes!

Ján Figel'

Member of the European Commission
with special responsibility for
Education, Training, Culture, and Youth

The European Commission and the Jean Monnet Community

The European Commission attaches enormous significance to the work of the Jean Monnet professors and the Jean Monnet community. My message to you, Jean Monnet professors, is that you are the critical and independent ambassadors of the European idea around the world. It is difficult to imagine better qualified and more credible multipliers of knowledge on the EU worldwide. And because of your expertise and independence of judgement, we know that you can also provide unique insight and policy advice. I would like to thank you for your good work, personally and on behalf of the Commission. It is thanks to your presence – and that of the other leading decision–makers, representatives of the civil society, and intellectuals – that Jean Monnet Conferences are becoming a leading forum of discussion for European issues – and sustainable development is certainly on top of our list.

Over the years, the European Commission has created an ideal environment of cooperation with the Jean Monnet professors; based on mutual respect and trust. Over the years, you have made an invaluable contribution to the development of European Studies and to the dissemination of quality information about our process of integration. I have no doubt that this cooperation will continue to bear fruit for many years to come. You have rendered an important service to European integration by raising awareness and shaping public opinion in the countries of the EU and in the candidate countries.

But today I would like to stress the work carried out by the Jean Monnet professors in other parts of the world. I think you can fairly be described as part of the grass–roots arm of our external action. We all know that the Union is an unprecedented geo–political and institutional innovation. Few parallels can be drawn with other, more familiar institutions. Because of this, it is difficult to understand what the EU does, how it does it, and—above all—who does what.

I sometimes think that when people meet the Union for the first time, they must be as baffled as the European naturalists who first saw a platypus at the turn of the 19th century. So, it is clear that the understanding of our institutions and of our process of integration would have remained modest without your work, and the work of your centres and associations. There are more and more Jean Monnet projects around the world. You are now present in 60 countries on all continents. This is excellent news, and I congratulate the network for its dynamism. And with the new integrated Lifelong Learning Program we hope to do even more.

How can we explain the growing interest for European Studies among academics and students from every corner of the world?

Naturally, there cannot be one general explanation, as each region and country will have its own. However, I would like to put forward a hypothesis—and please let me know what you think of it.

Europeans are proud of their history of achievements: we have given democracy to the world, the principle of reason, modern science—to quote only a few intellectual advancements. Europe, full of cultural diversity, is struggling today to build unity in this diversity.

But our continent has also seen the worst atrocities in history and has been blighted by economic depressions and famines. After World War II there was a distinct sense that Europe could become irrelevant on the international scene without a radical change.

The European Community provided precisely this change. We have been capable of re–inventing a polity for ourselves which has been largely responsible for an unprecedented period of peace and prosperity.

It is with humility that I suggest to you that the European experience of the last 50 years can be a model for other parts of the world. Because Europe – it is the world in small.

And this may explain the growing interest in our process of integration to which you can testify.

This being said, world history is in a flux today. All of us who are involved in the European project should listen carefully to what external observers have to say. You can help us understand our significance, our strong points, and our achievements; but also our shortcomings and mistakes—and what we can do to move forward.

Previous conferences have covered such topics as Europe's challenges in a globalized world, the European Union and emerging world orders, and the issues of peace, security and stability. Looking back, the relevance of your input is striking. As you will remember, it was during an earlier Jean Monnet Conference that the concept of a neighbourhood policy was conceived—then under the phrase "the ring of friends"—which earned former President Prodi the moniker "the Lord of the Rings"!

A Jean Monnet Conference also called for the EU to support the dialogue between peoples and cultures. That idea is about to take concrete shape with the Year of Intercultural Dialogue 2008. And 2009 I have already proposed to name as a European Year of Creativity and Innovation.

I would like to close with a word on the theme of this book. For President Barroso and his College, few issues are more crucial than sustainable development. As you can see from the structure of this book, the result of the Global Jean Monnet Conference that took place on 5-6 November 2007, we have a broad understanding of sustainable development:

- the second section of the book considers global environmental governance, covering issues such as climate change and water policy;
- the third section is devoted to sustainable energy and security;
- the fourth section examines demography, poverty, migration and related challenges;
- finally, the last section of the book contains a number of pertinent conclusions.

The main reason why we consider the Jean Monnet reflection activities so highly is precisely that they are not simply freewheeling academic gatherings. On the contrary, Jean

Monnet Conferences bridge the gap between academic reflection and concrete policy insights.

The Union at 50, is more complete, more European. New Member States, new challenges, a new international role are all part of our growing up. Integration – it is neither absorption, nor assimilation of the newer and weaker by the older and stronger. Integration – it is about participation and belonging! Let's hope that the agreement on the Reform Treaty last month is a sign of our increasing Maturity! I understand maturity as a capability to humanize world we live in – to bring more humanity in solidarity and responsibility. Sustainable development factors got further support in the instruments and policies within the new Reform Treaty.

The expectations of our people are also higher. This is both recognition of the relevance of the EU and a challenge to us all. I am sure that today's Conference will provide us with views, visions and strategies that will help us steer the changes in a positive and sustainable direction. I would like to end with a quote of the inspirer of your network – Jean Monnet. Once he wrote: *«Nous ne coalisons pas des états, nous unissons des hommes!»* To unite people is much more demanding than to organize alliance of states! But it is also much more influential and beneficial for mankind.

II. Global Environmental Governance, Sustainable Development and the European Union

Professor Julia Marton-Lefèvre

Professor Joyeeta Gupta

Professor Sebastian Oberthür

Professor Yanna Gutiérrez Franco & Professor José Manuel Martínez Sierra

Julia Marton-Lefèvre

Director General of the World Conservation Union; former Rector of the UN-mandated University for Peace; former Executive Director of LEAD (Leadership for Environment and Development International); former Executive Director of the International Council for Science

The European Union and World Sustainable Development

CONCEPT OF SUSTAINABLE DEVELOPMENT

The phrase 'sustainable development' is used a great deal, but the concept means very different things to different people. Sustainable development is meant to be an equal balance between the three pillars of economy, society and environment. Viewing these important parts of our lives as separate silos underlines our habit of acquiring and treating knowledge about our world as separate and unrelated. And, of course, the reality in these three pillars is that the environment nearly always ends up being under-valued and forming the weakest part.

Within the EU a lot of work has been done to produce a Sustainable Development Strategy which contains some very laudable goals. However its limitation is that it has been produced in parallel to the EU's economic strategy (the Lisbon Strategy), which sets out the EU's development priorities. Producing a separate Sustainable Development Strategy, however excellent, will forcibly result in the environment being seen as separate from, and probably the weakest of the 3 pillars of sustainable development. It would be such an examples of leadership to have a systems view of sustainability with a single, over-arching strategy.

So we need some new approaches: we need to recognise that our natural environment is the foundation of sustainable development and the necessary basis for life itself. Rather than thinking of the three aspects of sustainable development (economy, society and environment) as three vertical pillars, we should think of them as three horizontal ones, with the natural environment at the base, forming the foundation on which the second layer of a healthy society is built, which in turn, together with a strong base, supports the top layer, a healthy economy.

So how does nature form the basis of sustainable development?

A healthy natural environment is vital to the EU's sustainable development, for a prosperous economy and high quality of life for all EU citizens. Ecosystems are the basis of our life support systems. They provide us with many products such as food, fibre, biomass, water and the raw materials for industry and manufacturing. They also regulate our climate, soils and water supply and assist with disease control.

The natural environment also has many social benefits, such as contributing to physical and mental health, recreation, reflection, spiritual enrichment, cultural and heritage as well as aesthetic values. All of these are vitally important for the quality of life of people in the EU, and indeed everywhere.

WE CURRENTLY FACE AN ENVIRONMENTAL CRISIS

The status quo in the way we treat the natural environment, even if we understand its various services, is unsustainable; we cannot carry on with business as usual.

Climate change is the most obvious example of how unsustainable our economy and way of life has become. Almost every day, it seems we hear further evidence that the Earth's climate is changing. The 1990s was the warmest decade in the last hundred years, and 1998 was the warmest year on record.

The effects are being felt in Europe, through heatwaves (30,000 died in Europe in 2003), flooding, retreating glaciers in the Alps, forest fires in Spain, Portugal and Greece. And these impacts will only worsen further.

The most vulnerable people in developing countries will suffer most from the impacts of climate change, through the effects of flooding, desertification, falling crop yields,

famine, drought, disease, which are all likely to result in huge numbers of environmental refugees.

The World Health Organisation says climate change killed 150,000 people in 2000, a death toll that could double again in the next 30 years if current trends are not reversed.

We have to remember that alongside climate change, and often affected by it, we also face an environmental crisis in terms of biodiversity loss.

Our planet's great natural wealth is known collectively as 'biodiversity'. Although this term was largely unknown before the late 1980s, it is now at least frequently used although often not understood. With the rapid climate change foreseen in the coming decades, the capacity of species to adapt is going to be severely tested. As species are linked in an interrelated web of life, any major shift (positive or negative) in one species will affect others in a way that we cannot easily predict.

Biodiversity loss is already a serious environmental problem despite some efforts being made towards the EU's target of "halting the loss of biodiversity by 2010". The importance of giving prominent attention to biodiversity loss, alongside climate change, was highlighted by Commissioner Dimas in his opening speech at Green Week in May 2006 when he said: "There can be no doubt that stopping the loss of biodiversity and limiting climate change are the two most important challenges facing the planet. And while climate change takes up much of the media attention, in one fundamental way biodiversity loss is an even more serious threat. This is because the degradation of ecosystems often reaches a point of no return – and because extinction is forever...".

The G8 Heligendamm Declaration earlier this year also placed importance on "the conservation and sustainable use of biodiversity as an indispensable basis for the for the provision of vital ecosystem services and the long term provision of natural resources for the global economy."

All of this signifies progress in understanding, but so much more needs to be done in actually doing something about caring for our biodiversity.

There are now over 16,000 species on the 2007 IUCN global Red List of Threatened Species that are facing extinction: 1 in 4 mammals, 1 in 8 birds, one third of all amphibians and 70% of the world's assessed plants on the global Red List are in jeopardy. It has been estimated that the current global extinction rate is 1000 to 10,000 times higher than the

natural background extinction rate. In Europe some 42% of European mammals are endangered, together with 15% of birds and 45% of butterflies and reptiles. The Arctic fox, the Iberian lynx, native squirrel are all under serious threat.

Many of the problems of environmental degradation are driven by overconsumption in Europe. We would actually need the land space and resources of two Europe's to maintain our current lifestyle. As Europe has historically been responsible for creating many of our global environmental problems and consumes more than its share of the world's resources, it has a moral responsibility to tackle these problems and take a global lead in developing new approaches and solutions.

PROGRESS IS BEING MADE: NOW IS THE TIME FOR CHANGE

The EU is often seen as the leader in international environmental policy making and we mustn't lose this momentum as the global challenges are great. There have been some real success stories: for example, the EU has the most developed regional response to meeting the 2010 biodiversity target and implementing the Convention on Biological Diversity (the CBD) through the establishment of the *Natura 2000* network of protected areas.

There is real recognition now by the European public that environmental issues are important. A recent EU barometer report showed that 72% of EU citizens favour more decision making on the environment at the EU level. The public is already convinced, we now need to deliver what they want

Instead of aiming to become the most competitive region, the EU needs some 'big-picture' goals that EU citizens will agree to and be inspired by.

I believe that the rest of the world is looking to the EU to take a lead in this area

CHANGING THE STATUS QUO: WHAT THE EU CAN DO

Properly fund and implement its own environmental policy

The EU is good at developing environmental strategies, partnerships and initiatives but needs to do a lot more to implement them successfully. The EU's Natura 2000 network of protected areas has made significant progress in protecting the EU's most endangered species and habitats. But more needs to be done to complete the network and ensure it is properly financed.

The EU's new financial instrument for the environment LIFE+, (2007-2012) is less than 0.5% of the total EU budget and we are still failing to properly integrate environmental objectives into other EU funds. We need to get serious about allocating funding so that environmental policies are properly implemented. If 72% of EU citizens favour more decision making on the environment at the EU level, then why are we so reluctant to put money into it?

Properly value nature – ecosystem services have gone unnoticed for too long

All ecosystems make important contributions to human welfare, providing both goods and services. Maintaining the productivity and health of these ecosystems must be considered one of our highest priorities, along with national defence, health and education.

These contributions or '' services that nature and ecosystems provide have gone unnoticed and have been under-valued for so long because we've historically thought of them as being 'free'. We need to start calculating environmental costs properly so that the benefits we receive aren't taken for granted. The EU has the opportunity to take a lead in this by developing a 'Stern like report' on biodiversity. The EU must take a global lead in building a truly green economy which takes real account of environmental costs.

Work with nature

The EU could benefit further by investing in its natural heritage and by looking to take an ecosystem approach when implementing its policies. One example of this is in developing policy responses to climate change, for example within its new Green Paper on Climate Change Adaptation. Taking an ecosystem approach, rather than looking at isolated technical responses, can help in adaptation and is often the cheapest option. Ecosystems can play a vital role in decreasing climate change impacts, particularly in developing countries where technical solutions are rarely affordable. For example, natural floodplains can absorb floodwater and minimize flood damage; native trees tend to be more resistant in the case of increased forest fire risk than fast-growing exotics; a high genetic diversity of agricultural crops and fish stocks can increase food security; increased vegetation can decrease soil erosion and prevent desertification; and coastal ecosystems such as dunes and saltmarshes can absorb water from rising sea levels.

Agriculture – a greener Common Agricultural Policy (CAP)

Progress has been made in making the Common Agricultural Policy greener but we still have a long way to go before environmental objectives can be said to form the heart of the CAP. Many EU policy-makers have picked up biofuels as an easy solution to the problems facing the CAP, but unless the EU's biofuels policy is grounded in good science it could further aggravate environmental problems, such as biodiversity loss, rather than forming part of the solution.

Farmers often provide huge public benefits by looking after our landscapes and natural heritage. If the real benefits to society of what many farmers are providing was costed in economic terms, it would be much easier to reward farmers on the basis of the services they are providing to EU citizens (for example, in terms of recreation, maintenance of landscape features, wildlife habitats, nutrient recycling, water and climate regulation etc).

Development cooperation

Biodiversity objectives and ecosystem services also need to form the basis of the EU's development cooperation strategies and programmes. The natural environment is a vital part of sustainable rural development, and is essential to achieving poverty reduction, through minimising risk, improving food security, nutrition and health. Much work still needs to be done to achieve proper environmental governance, for example, through assisting with the capacity building of civil society in recipient countries.

CONCLUSIONS

- To achieve truly sustainable development, a healthy thriving natural environment must form the foundation of sustainable development
- The rest of the world is looking to the EU to take a lead in tackling global sustainable development challenges
- The EU needs to value nature and ecosystem services and should develop a vision for a truly green EU economy before the next round of budgetary discussions begin.
- To make this changes isn't easy, a new vision and new solutions are needed. The World Conservation Union, IUCN, is ready to contribute to this global debate through the experience gained in its 60 year history, its multi-faceted

membership of States, Government and Civil Society organizations; its large network of volunteer experts and its distributed secretariat of talented and committed individuals working in all parts of the world, including of course here in Brussels.

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Global Water and Climate Governance: Implications for the EU with Respect to Developing Countries(1)

INTRODUCTION

The problem of climate change and challenges in the area of (fresh) water are closely linked. The potential impacts of climate change affect the local through to global water system by impacting on precipitation and evaporation patterns, by creating more or less demand for water through the impacts on temperature, for example, on agriculture. At the same time, the potential policy measures to deal with climate change, such as biomass production for energy and hydroelectricity may also influence the use of water.

(1) This paper draws heavily on two monographs - Gupta, J. (2005). *Who's Afraid of Global Warming?,* Inaugural Address as Professor of Climate Change: Policy and Law, Vrije Universiteit Amsterdam, ISBN 90-90201-43-2; and Gupta, J. (2004). *(Inter)national Water Law and Governance: Paradigm Lost or Gained?,* Inaugural Address as Professor of Policy and Law on Water Resources and the Environment, Department of Management and Institutions at the UNESCO-IHE Institute for Water Education in Delft, 22 March 2004; ISBN: 90-73445-11-6.

This close relationship between the two problems implies that climate and water governance should be effectively linked if we wish to address both problems simultaneously and effectively. However, at present the two worlds are quite distinct. This essay tries to set out key features of water governance from local to global level (see section 2), then highlights features of climate governance (see section 3), before briefly comparing the two systems (see section 4) and drawing some conclusions lessons regarding how the two worlds can be linked together.

WATER GOVERNANCE

Introduction

This section briefly introduces the history and current status of water governance at local level before moving on to provide a state of the art assessment of water governance at global level. It then draws a few inferences.

Water governance at local level

Water governance has a very long history going back at least five thousand years. Water has been managed by local communities, ancient civilizations (e.g. Roman, Mesopotamian, Egyptian, Indus), and through various religions (e.g. Hinduism, Islam). Water governance differs from place to place because the specific historical, cultural and hydrological aspects of specific regions have influenced the form it has taken.

At the same time water governance in different parts of the world is very similar. This is because of a number of converging forces. The spread of civilizations led to common practices in different parts of the civilization. The spread of religion led to similar water practices. Conquests and colonization were dominant forms of spreading water law in the past. In the last century, epistemic communities and legal codification processes helped to create uniform principles in different parts of the world. However, this does not mean that there are identical policies in different parts of the world.

At the same time, water governance is highly pluralist in nature, especially in the developing world. While some countries were able to integrate new influences into existing practices, the bulk of the countries in the developing world were unable or unwilling to do so. This leads to different practices and policies in different parts of these countries as recent influences did not always rewrite past experiences. This implies that there are major pluralist tendencies in water governance in many countries.

While external influences have often had a very educative and enlightening impact in many cases, they have also occasionally resulted in confusion in many importing countries. For example, in recent years transnational influence on indigenous policy and transnational influence on water policy, has created a situation in the Philippines where indigenous people have been granted land and water rights, while the poor people in the country have not – leading to discriminatory policy between one group of poor people and another group. In Indonesia, transnational influence on government policy led to a strange compromise in which stakeholder participation in policymaking and private participation in water management were integrated in one paragraph although legally speaking these are two very different concepts.

At the same time, different disciplinary perspectives create confusion about the appropriate level of water governance. While in the past water governance was purely subject to national law, increasingly hydrologists have been pleading for the need to govern water bodies in their entirety – thus at the river basin level. In more recent years, ecologists who see ecosystems as ideal units plead for managing resources in accordance with ecological boundaries. However, as water becomes increasingly scarce, it is also seen as a political good which leads one to argue that countries may become increasingly nationalistic in managing water resources and that water security may be a driving force in this direction.

For many social engineers who design solutions for countries, history is often seen as irrelevant. In the search for optimal solutions either from an engineering or an economic perspective they seek to optimally distribute resources in society. However, such distribution is in fact a re-distribution of resources and this often implies understanding the nature of legal and/or customary rights and responsibilities and finding ways to compensate those who lose when such a re-distribution occurs. The optimal social engineering designs do not often take historical facts into account and assume that one can work with a clean slate as where dam makers have diverted water from original users to new users. At the international level, the importance of history can be demonstrated by briefly referring to the Nile. Past agreements on the Nile in 1929 and 1959 have given Sudan and Egypt rights to the waters of the Nile that are still legally valid today and compromise the ability of upstream users to divert more waters for their own development needs.

At local and national levels thus water governance is shaped by local history and influenced by external impacts over the centuries. While sometimes the management has incrementally improved over the years, at other times it reflects complex compromises

between different interest groups, and has often led to the existence of pluralistic forms of governance.

Water governance at global level

Water governance at global level is a relatively new phenomenon. At international level we have several hundred treaties between countries regulating water use over the last five centuries, but water governance at global level is something that occurred only in the last five decades. The bilateralism increasingly gave way to plurilateralism and with greater recognition of the water system as a global system, and water problems to be both cumulative (e.g. water pollution) and common in different parts of the world (how dams block the flow of water, or problems of water access), the need for global water management has increasingly become important.

One can argue that there are three trends in global water governance today. There is the slow, bottom up cumulative process of customs leading to legal rules worldwide, the top down process of science driven governance ideas coming from the international policy communities, and the diagonal influence of globalisation via trade and investment regimes.

The key feature of global water governance is that it is highly diffuse. Too many UN agencies are involved in water governance and no one had been able to take the lead in water policy. Efforts in the legal sphere within the UN Law Commission remained confined to legal discussions and even though it ultimately led to the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses - the first global water law, this has hardly been ratified by UN member states and has not yet entered into force.

The inability of UN bodies to take a lead in water governance led a number of different actors

to play critical roles in the global arena on this issue area. These include the World Water Forum, water NGOs such as the Global Water Partnership, and the World Water Council. The rise of these networks and bodies forced the 23 UN agencies working on water to collaborate under the name UN Water.

The multiple initiatives around the world at global level give no clear indication of how water governance may further develop in this century. It is possible that in the future, UN Water and the UN water law somehow increase their credibility and promote formal,

globalised large-scale water policy. Or given that we continue to live in a world of different speeds, different regions of the world may develop their own formal policy structures such as Europe and South East Asia. Or we may have a number of different actors promoting different types of water governance initiatives all over the world. A last scenario is that if the private sector and non-state actors lose interest in water as a commercial good and if the resources funnelled into water policy decrease that global governance may disintegrate into a few unilateral initiatives. It is too early to say in which direction global water governance may develop.

A final point on water governance is that the problems, actors and institutions and possible policy solutions differ from local through to global level. This calls for different types of context relevant action to be taken at each of these levels. At the same time, probably more than in any other field of water governance, ideas of global governance have resulted from several centuries of ideas that have emerged at local level.

CLIMATE GOVERNANCE

In contrast to water governance, climate change governance is very young. Although the issue emerged as a scientific challenge in the 19th century, it was only in the late 20th century that it emerged as a complex scientific issue leading to the establishment of an intergovernmental scientific panel that was empowered to produce five yearly assessments of the science; and that it emerged as a political issue, when in 1990 the UN decided to initiate a negotiating process to negotiate an agreement on climate change. The parallel start of the scientific collaboration institutionalised in the Intergovernmental Panel on Climate Change and the intergovernmental negotiations under the UN led to rapid political collaboration and two years later a global Convention on Climate Change was negotiated which entered into force in 1994. In 1997 a Kyoto Protocol to the Convention was negotiated and this is now in force.

In the area of climate governance common fears drive the political process in poor and rich countries alike. This is the fear that action to reduce the emissions of greenhouse gases may have more negative impacts on economic growth than the impacts of climate change. This political fear has dominated the discussions; as countries are afraid to take a clear unilateral lead as this may have an impact on the competitiveness of their industry in the international arena.

Unlike in water governance, leadership plays a key role in climate governance. In the initial stages the European Union was keen to lead and most of the developed countries

supported the idea that the rich countries should take action first and assist developing countries to take action to reduce their emissions of greenhouse gases. By 1996, the US was clearly making its leadership conditional on action by the key developing countries, the European Union was hesitant to go forward without the US and Japan and the leadership became conditional. In 2001 when the US decided definitely to withdraw from the Kyoto negotiations, the EU was forced to take on a unilateral leadership role and pushed its efforts to convince the Russians and the rest of the developed world to take action on climate change. In the meanwhile the US tried to emerge as competitor by promoting a number of bilateral and unilateral agreements with other countries on climate change related issues. Current trends within the US – in terms of court cases, provincial policy and the electoral policies of presidential candidates show a greater likelihood of the US returning to the multilateral fold in the future.

While the water issue often has a clear rich poor dimension when it concerns transboundary rivers, it does not have a North-South dimension as climate change clearly does. From a North-South perspective, the developed countries have traditionally been the major source of greenhouse gases while the impacts will be more severely felt in the developing world. The initial leadership paradigm underlying global cooperation on water promised clear leadership by the North in terms of reducing emissions *and* "new and additional" support for the South. By the time the conditional leadership paradigm had emerged emission reduction by the North could be achieved *through* some of the support action in the South. At present, the new and additional idea has been replaced by the idea of mainstreaming climate change into existing aid policy – thereby using "old" money for new problems.

Climate change remains a complex issue. Unlike other areas of international governance, the political and financial stakes are very high. This has led negotiators to often indulge in number games. For example, at the Kyoto negotiations – the US was only empowered to negotiate a stabilization target (stabilise emissions by 2010 in relation to 1990 levels), but under pressure agreed to a –7% target. Later the White House produced a Press Release stating more or less that the –7% target was equivalent to the stabilisation target since a number of additional elements had been added to the treaty. Senior officials also later argued to environmentalists that the –7% was equivalent to a –30% target if one compared the reduction to projected growth levels. Such number games often make it difficult for other actors and countries to understand what exactly is happening.

The climate change problem is clearly urgent and efforts to minimise the most serious impacts implies that states calls for peaking global emissions by 2015. However, discus-

sions on the long-term objective have scarcely been on the global political agenda and it is unlikely that, at the rate the political discussions are going, that we will be able to peak global emissions by 2015. The question is whether the long-term objective discussed in the literature will be adequate to protect the most vulnerable countries and peoples from the immediate impacts of climate change and whether we are engaging these countries more to protect our own future interests than theirs?

Another key challenge in this area is the design of instruments to address the global problem. The notion of targets to be achieved within specified timetables is seen as too difficult to achieve without providing industry clear incentives to take action. This has led to the import of ideas from one of the most developed countries in the world – i.e. the US – and emissions trading has become a central feature of the climate treaties. Whether other countries have the wherewithal to participate rapidly in such sophisticated market mechanisms has not seriously been discussed.

As in water governance, the nature of the climate change challenge from local through to global levels is different, the actors and organizations involved are different and the policy measures best suited to deal with action also. For example, efforts to change consumer behaviour may work best at local level where infrastructural support (transport, schools for children, cycle paths) etc. may have an impact on how people construct their lives. This implies that there is plenty of opportunity for lower governments and non-state actors to take climate relevant action should they wish to and transnational efforts to promote such action are underway.

While there is considerable national and international jurisprudence on water, litigation in the area of climate change is of recent origin. Most cases are presently within national courts and it is early days to see whether such climate litigation will provide an additional impetus to national governments to take more action.

CLIMATE AND WATER GOVERNANCE

Let us then briefly discuss the key differences and similarities in water and climate governance. The nature of water problems in developing countries is very different from that in the developed world. The problems in the former countries are problems of access, flooding, sanitation, and environmental impacts. Such quantity problems are further exacerbated by the potential impacts of climate change. At the transboundary level, addressing equity and environmental dimensions are key challenges. Access problems have mostly been addressed in the developed countries, transboundary rivers are under complex sys-

tems of management and fresh water problems in the developed world tend to focus on ecological issues. The nature of the challenges that climate change brings with it is similar in developed and developing countries in the sense that it will imply changes in local weather, impact on glaciers and lead to sea-level rise. However, the ability of societies to deal with these impacts will be different depending on their physical, human, institutional and financial capacity but also on the particular geo-physical context in which they currently function. Besides, the bulk of the emissions have been emitted by the industrialised nations.

While water governance has a very long history and is embedded in social and historical trends, climate governance has a very short history. While water governance is diffuse and highly fragmented with different actors and different perceptions, climate governance is relatively speaking highly centralised and actions on the periphery are relatively marginal. While 23 UN agencies work together on water, climate governance falls under the Climate Treaties which were negotiated under the General Assembly. Links with other UN bodies that have a significant role in climate change exist but are not substantial. While water governance is not supported by any major centralised water epistemic community, climate governance is supported by a centralised institutionalised mechanism.

While regional water legislation has tended to build on past state practice and tends to have a high compliance pull, climate legislation tends to build on best practices and scientific ideas, often not tried and tested in individual national contexts and thus puts considerable pressure on these countries as they try and find ways and means to implement these new ideas with fewer resources in very different domestic contexts. Much of the centralised science that feeds into this process does not take into account the policy contexts within which such policies are to be implemented, as they scarcely engage anthropologists, policy scientists, legal scholars and political scientists from the less developed countries. The changing way in which law is made nowadays puts new pressure on the assumptions on the effectiveness of laws. Where in the past international agreements harmonised national policies and resulted in incremental changes in domestic contexts (see Figure 1), now international agreements bring in new and untested ideas that work in the richest countries of the world and try to make them also work in poor countries (see Figure 2). This is bound to lead to major implementation challenges in the future.

Figure 1. The Incremental Traditional Model of Law Development

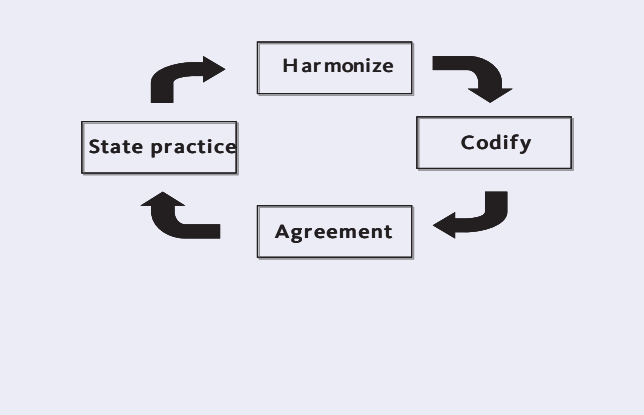
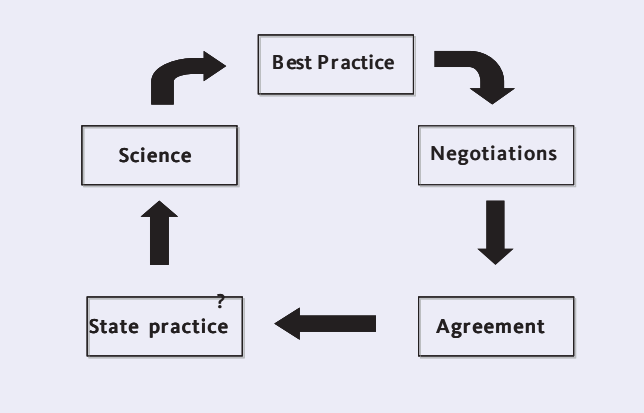


Figure 2. The Structural, Modern Model of Law Development



CONCLUSION: IMPLICATIONS FOR THE EU

The purpose of this essay was to explore the nature of water and climate governance at global level and to provide a concise history of the key issues. Two key messages emerge from this essay. First, policies cannot be developed in a historical vacuum. Attempts to define ideal solutions and impose them in country contexts will imply that these instruments will be, if at all, redefined in the local context and may not have the impacts anticipated. As the global community moves from concepts of government to concepts of governance we see a number of different actors in different fields and in different parts of the world taking action. However, while such multiple action ensures diversity and pluralism, it may also mean that the end goals (such as the MDGs) are not achieved, that it may be more difficult to harmonise polices and ensure equity and that control and implementation becomes more difficult. Although we are seeing a rapid convergence of ideas world-wide through networks, epistemic communities, the media, globalisation and

international policy, such trends do not imply equal and consistent application and may lead to pluralism and confusion.

A second conclusion is that at a more specific level, we can see that no serious efforts have been made to link climate change and water governance at global level and linking these two arenas will be difficult because of the diverse nature of the arenas. It may make sense to develop a UN Climate which links the work of the various UN agencies on climate change; and then to link this body to UN Water. It may make sense to find ways to link the Climate Convention with a follow-up process to the UN Watercourses Convention. But while there are a number of initiatives to link climate change and water research at national and international level, these initiatives do not attempt thus far to link the governance regimes together. A task force to find formal ways to link such UN bodies and the UN conventions together to enhance the synergies may be a useful first step towards global coordination in this field.

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EU Leadership on Climate Change: Living up to the Challenges

International leadership of the EU on climate change today seems to be a commonplace and many if not most take it for granted. In this presentation, I will attempt to look behind the façade of the commonplace and explore how firm the basis of EU leadership on climate change is. To do so, I will proceed in five steps. To lay the basis, I will first provide a brief overview of the history and content of international climate governance. This will be followed by an investigation of past and present international EU leadership on climate change. Third, I will present the main political challenges for the process that is to ensue from the Bali climate conference (December 2007) over the coming years. The fourth step will consist in an analysis of the challenges that the EU is facing in its strive for continued international leadership on climate change. Fifth, I will conclude with pointing to a number of promising elements of an EU strategy aiming to realize such continued leadership.

INTERNATIONAL CLIMATE GOVERNANCE: BUILDING BLOCKS

Today, international climate governance builds on a history of nearly 20 years that has produced a number of important building blocks. First of all, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 and entered into force in 1994. The Convention provides the very basis of international cooperation on climate change in particular by defining an ultimate objective as well as fundamental prin-

ciples. The ultimate objective of international climate policy thus is to achieve a "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (Art. 2). Most prominent among the principles enshrined in Article 3 of the Convention is the principle of common but differentiated responsibilities and respective capabilities. (Sands 1992; Bodansky 1993; Yamin/Depledge 2004)

The Kyoto Protocol to the Convention is the next important building block. The Protocol as agreed in 1997 determines greenhouse gas (GHG) emission limitation and reduction targets for industrialized countries to be met during the five-year commitment period of 2008-2012. It is furthermore best known for the market mechanisms it has introduced, namely international emissions trading, the so-called Clean Development Mechanism (CDM) and Joint Implementation (JI). Through the CDM, industrialized countries can generate and acquire emission credits that contribute to meeting their emission targets by investing in GHG mitigation projects in developing countries. JI provides the same opportunity by investing in climate protection projects in other industrialized countries, mainly those who have made the transition to market economies starting in the early 1990s (Oberthür/Ott 1999; Grubb et al. 1999; Yamin/Depledge 2004).

In 2001, the Kyoto Protocol was further elaborated through the so-called Marrakech Accords. The Kyoto Protocol basically provided a blueprint that needed to be further elaborated before it could be readily implemented (Ott 1998). The Marrakech Accords constituted the necessary implementing provisions of the Protocol, including regarding the market mechanism, the treatment of forests and other GHG sinks, reporting and review, compliance and assistance to developing countries (see Bail et al. 2003).

The Marrakech Accords provided the basis for the Kyoto Protocol's entry into force and its almost universal acceptance. The Protocol finally entered into force in February 2005 after it had received the necessary ratification by Russia in November 2004. By the end of 2007, 176 countries and the EU have ratified the Protocol. The most notable exception is the United States. In March 2001, the then new US administration of President Bush declared its opposition to the Protocol and withdrew from the Kyoto process. After the new Australian government ratified the Protocol in December 2007, the US remains the lonely industrialized country to oppose the Protocol.

The Bali conference – the 13th annual gathering of Parties to the Convention and their 3rd meeting under the Protocol – laid the basis for the next step in the international cooperation to protect the climate. In particular, it agreed to launch a negotiating process for

a global climate agreement for the time beyond 2012, to be adopted at the end of 2009 (Ott et al. 2008; UNFCCC 2007). We will return to the main issues to be addressed in this process below (section 3).

Overall, the achievements of international climate policy are mixed. The presented building blocks constitute first steps on a long way towards effective protection of the global climate. On the positive side, the Kyoto Protocol mandates emission reductions of industrialized countries as a whole of about five percent and thus constitutes an important beginning in the effort to reverse the trend of increasing GHG emissions. The existing international agreements also provide a solid and flexible institutional structure that can serve as a basis for further development and is without a visible credible alternative. This structure includes in particular the mentioned market mechanisms (emissions trading, CDM, Joint Implementation), basic elements to provide assistance to and incentivise action in developing countries, the system for reporting and review and an innovative compliance mechanism (on the latter see Wang/Wiser 2002; Ulfstein/Werksman 2005).

However, the task of achieving effective international climate protection remains daunting. In institutional terms, the still increasing differentiation and complexity of the governance system (resulting both from functional requirements and politics) – with separate regulatory areas and regulatory bodies covering the market mechanisms, compliance, reporting and review, assistance to developing countries, GHG sinks, and others more – constitutes an ever more prevalent challenge. In substance, the achievements of international climate governance have so far remained awfully inadequate when measured against the requirement to reduce *global* GHG emissions by at least 50 percent by 2050 and even more drastically beyond 2050. Emission reductions of this magnitude are required so as to prevent anthropogenic interference with the climate system that could easily become catastrophic, the likelihood of which is believed to increase significantly if the increase of global mean temperature were to exceed 2 degrees Celsius.

The daunting task for international climate policy thus is to elaborate a global agreement that complements the existing architecture (UNFCCC, Kyoto Protocol) so as to provide a robust and effective framework for international climate policy beyond 2012. In terms of substance, this agreement needs to lead to considerably strengthened action by both industrialized countries (including the US as the biggest emitter among them) and (major) developing countries, compatible with emission scenarios that would enable the prevention of more dangerous anthropogenic climate change. In institutional terms, the manageability and robustness (i.e. its adaptability in line with the requirements) of the overall governance system needs to be ensured and preserved as a precondition for its perform-

ance and effectiveness – not an easy task when considering the further differentiation of the governance system that is on the horizon (see section 3).

EU LEADERSHIP IN INTERNATIONAL CLIMATE POLICY

Ever since the negotiations on the Climate Change Convention began in 1991, the EU has been the major leader in international climate policy. With regard to international action to combat climate change, the EU has regularly had the most progressive position of all major actors. In the negotiations on the Convention, the EU (unsuccessfully) supported an international legally binding commitment by the industrialised countries to stabilise their emissions at 1990 levels by the year 2000. In the negotiations on the Kyoto Protocol from 1995 to 1997, it led the crowd by proposing a target of reducing developed countries' emissions by 15% by 2010. The emission target of -8% inscribed in the Kyoto Protocol for the EU and its then 15 member states is the highest of the major industrialised countries. In the negotiations on the Marrakesh Accords of 2001 establishing the rulebook for the implementation of the Kyoto Protocol, the EU defended the "environmental integrity" of the Protocol in particular by demanding giving priority to domestic action and limits on the use of carbon sinks (most importantly, in agriculture and forestry). After 2001, the EU was the major international proponent of ratifying the Protocol and was the driving force behind its entry into force (Damro 2006: 184-190; Bretherton/Vogler 2006: 105-109; Groenleer/van Schaik 2007).

The EU has also made increasing efforts to underpin its international position with domestic measures. While domestic climate policy measures at both EU and member state level only weakly supported the EU position throughout most of the 1990s, the EU and its member states have increasingly taken action since then (and in particular since the entry into force of the Kyoto Protocol). Most importantly, the EU has implemented an emissions trading scheme with mandatory participation of all EU member states, which covers around 40% of the EU's CO_2 emissions. An apparent over-allocation of emission allowances for the pilot phase 2005-2007 has led to more stringent review arrangements for national allocations for 2008-2012 (Delbeke 2006; Skjærseth/Wettestad 2008). Further existing EU policies and measures address, *inter alia*, the promotion of biofuels, renewable energy, the energy performance of buildings, combined heat and power production, the use of fluorinated GHGs, energy efficiency and energy services, CO_2 emissions of cars and energy taxation (for an overview and analysis see EEA 2007: section 8).

In 2007 and early 2008, the EU renewed its international leadership position on climate change. The European Council of March 2007 made an "independent commitment" for

the EU to reduce its greenhouse gas emissions by 20% from the 1990 level by 2020. It also declared its intention to commit to a 30% reduction in the case of comparable commitments by other industrialised countries and adequate contributions by advanced developing countries. In addition, EU Heads of State or government agreed to increase the share of renewable energy in EU energy supply to 20% and the contribution of biofuels in transport to 10% in 2020. By early 2008, the European Commission has followed up on these agreements with a number of legislative proposals including: a Regulation regarding CO_2 emissions of new cars, a revision of the Directive on the EU emissions trading system (including a proposal to include emissions from aviation in the emissions trading system), a Decision on the internal burden-sharing with respect to the unilateral reduction target of 20% by 2020, and a Directive on the promotion of renewable energy (including the distribution of the overall target for 2020 to the member states) (European Commission 2008a; 2008b).

However, the EU's international leadership position on climate change is not without problems. At the international level, the EU's leadership aspirations have at times been challenged by the multi-actor and multi-level nature of the EU as an international actor (Oberthür/Ott 1999; van Schaik/Egenhofer 2005; Lacasta et al. 2007). With respect to domestic implementation, it is, according to available emission data, uncertain whether the advances made regarding the development and implementation of climate policies will be sufficient to reach the EU's Kyoto target of -8%. The development of GHG emissions in the EU and individual member states has so far only partially supported its international credibility (EEA 2007).

THE POLITICAL CHALLENGES FOR THE COMING YEARS

The Bali climate conference in December 2007 launched negotiations on a global agreement under the Climate Change Convention to be concluded by 2009 (UNFCCC 2007). The challenge for the coming years is to elaborate an effective international agreement the provisions of which are consistent with the objective of preventing dangerous anthropogenic interference with the climate system. In particular, the agreement has to ensure that the international efforts to combat climate change are continued and significantly stepped up beyond 2012 when the first commitment period of the Kyoto Protocol ends. Global GHG emissions have to be reduced by at least 50 percent by 2050, which requires that the current trend of increasing emissions be slowed down and reverted around 2020, at the latest. Building upon the existing architecture of international climate governance (including market mechanisms, accounting of sinks, etc.), the following elements need to

be addressed in the negotiations (and are, in their majority, mandated to be addressed; see UNFCCC 2007):

- **Strengthened mitigation commitments of industrialized countries**. If global GHG emissions are to be reduced by at least 50 percent by 2050, emission cuts by industrialized countries need to reach 60-80 percent. In order to achieve this aim, further emission reductions need to be achieved by 2020, probably in the order of 20-40% (compared with 1990). Even though other industrialized countries also still have a long way to go to agree to such reductions, the major political challenge in this respect is the US that has opposed own emission reduction commitments (especially of such a magnitude).

- **Strengthened mitigation action in developing countries**. With GHG emissions continuing to rise in the developing world, the necessary global emission reductions can only be achieved if this emission growth is limited and, eventually, also reversed. How agreement to initiate the required action can be reached with main developing country emitters, including China, India, Brazil, South Africa and others, remains a major challenge.

- **Strengthening and readjustment of mechanisms for transfer of finances and technology**. Since action in developing countries is a *conditio sine qua non*, so is enhanced transfer of finances and technology. Given their limited capabilities (and responsibility), developing country require assistance in GHG mitigation in terms of financial and technological resources to enable them to contribute effectively to the international efforts to combat climate change. The size of the required transfer is unprecedented and requires a decisive effort and innovative instruments (UNFCCC 2007a).

- **Strengthening of international cooperation for adaptation**. With the advent of increasingly serious impacts of climate change, adapting to these impacts becomes of growing importance. First international instruments have been introduced in particular in the framework of the Kyoto Protocol but are largely considered inadequate given the size of the challenge.

- **Limiting and reducing emissions from international transport**. Emissions from international aviation and maritime transport are currently not controlled internationally (and are not part of Kyoto targets). They currently account for about 4-5% of global GHG emissions and are rapidly increasing. Action on these

emissions must be taken, if the overall global emission targets are to be achieved. However, both the US and most major developing countries are opposed to such action.

- **Limiting and avoiding deforestation**. GHG emissions from deforestation currently account for about 20% of global GHG emissions. Most of these emissions originate from the developing world. International action faces the challenge to overcome and work around concerns about a possible infringement of national sovereignty that has bedevilled international cooperation on the protection of forests ever since related efforts started.

- **Further development of market mechanisms**. The market mechanisms have been one of the major innovations of the Kyoto Protocol. However, their potential for incentivising technology transfer and investment has not been exploited fully yet. Further developing and expanding the global carbon market therefore forms a central element on the agenda of future negotiations.

- **Strengthening of efforts to address the consequences of climate policies**. The potentially negative side effects of effective climate protection on some countries have been a constant concern especially for OPEC members. Although sympathy with their case among negotiating partners remains limited especially in times of skyrocketing oil prices, the consensus principle applied in the international negotiations make the issue of the 'impacts of response measures' an inescapable item on the agenda of the future negotiations.

Further architectural issues will have to be addressed in the negotiations in order to make the governance framework fit for its future evolution. As indicated, international climate governance is a long-term endeavour that will require further rounds of reform and development in the future. Relevant issues relate to the time-horizon of any post-2012 agreement (including length and number of commitment periods covered), how any follow-up would be envisaged and, broadly speaking, which mechanisms of decision-making can be devised.

The list of issues to be addressed and to complement the existing governance system suggests that the international framework is not likely to get less complex. The additional items will require attention in order to elaborate suitable rules and norms, and once agreement is reached they are likely to require follow-up. Overall, the agenda of

the international climate negotiations can thus be expected to lastingly become even more crowded. With the international process and most participating actors (including industrialized countries) already at the limits of their capacity, managing this complexity will remain a challenge in itself and will require adaptations of the governance framework, which still need to be assessed in more detail.

Challenges and Opportunities for EU Leadership

The tasks faced in the international process constitute the framework and a benchmark for continued EU leadership on climate change. In striving for leadership, the EU is faced with a number of relevant international developments and internal issues that provide both opportunities and challenges (see also Oberthür 2007). At the *international* level, the following developments seem particularly noteworthy:

- The publication of the **Fourth Assessment Report of the Intergovernmental Panel on Climate Change** (IPCC) gave a push to climate policy in 2007. The scientific consensus that serious climate change is happening and is man-made now seems beyond any significant challenge (IPCC 2007).

- **Energy prices and energy security**. With soaring energy prices, climate policies aiming at an increase of energy efficiency and the use of alternative sources of energy have gained additional support. They appear to make both more economic sense and contribute to reducing dependence on imported energy and thus to enhancing energy security.

- **Mainstreaming of climate change in 'high politics'**. Climate change has now been firmly established as a matter of "high politics", i.e. as an issue regularly discussed by foreign ministers and heads of state and government. The UN Security Council and the UN General Assembly for the first time made climate change major issues on their agendas in 2007. The G8 and other international processes also have firmly established the issue as a major item for discussion. And there is hardly any high-level political encounter anymore where the issue would not be discussed (see Ott et al. 2008).

- **Developing countries**. A number of major developing countries, including South Africa, Brazil and China, have shown increasing signs of flexibility and willingness to actively contribute to the global efforts to combat climate change, thus

possibly increasing the pressure on the EU and other industrialized countries to demonstrate leadership.

- **United States of America**. While the administration of US President Bush has failed to implement effective climate policies and has in particular consistently rejected GHG emission targets, action at the domestic level has nevertheless gained momentum. Several states, municipalities, economic actors and civil society have stepped up their efforts, while several national measures are under consideration by the US Congress. US presidential elections in November 2008 hold the promise that this domestic momentum may be nurtured by a new administration and possibly be translated into an international leadership challenge to the EU.

- **The EU's position in the international system**. The EU's evolving position in the international system will necessitate adaptations of its international strategies. While several rounds of enlargement have increased the size of the EU's internal market and its overall absolute weight, both its relative economic weight and its share of global GHG emissions is expected to decline over the coming years and decades.

In addition, the following internal matters are particularly relevant for the ability of the EU to exert international leadership on climate change:

- **Coping with increased diversity**. The east- and southward enlargement of the EU has significantly increased its internal diversity. Irrespective of whether or not "old" and "new" members of the EU will eventually adapt and "Europeanize" along similar lines, decision-making in the enlarged Union is set to become more complicated. And any socialization is going to take time and is thus not to be felt quickly.

- **Joint long-term vision and understanding**. Under these circumstances, developing a joint long-term vision and understanding of climate change among EU member states, the international framework to address it and the role of the EU in this context is an urgent requirement and a particular challenge at the same time.

Coordination of internal and external approaches and domestic implementation of effective climate policies. Under the conditions of internal diversity and mixed competence (van Schaik/Egenhofer 2005; Groenleer/van Schaik 2007), coordination of both internal and external EU policies on climate change remains a challenge. Importantly, coordination has to ensure that internal and external policies are consistent and mutually supportive. At the international level, this in particular requires effective coordination of member state positions and strategies. At the EU level, it calls for implementation of effective climate policies so as to lead by example. Leadership by example is an important component of any leadership strategy and a central basis of international credibility. And it gets more important for players such as the EU with limited (and declining, in relative terms) other resources that can be deployed in support.

CONCLUSION: ELEMENTS OF A STRATEGY FOR CONTINUED EU LEADERSHIP ON CLIMATE CHANGE

While EU leadership in international climate policy has so far remained largely unrivalled, there is no reason for complacency. EU leadership has neither meant that an appropriate international response to the challenge posed by climate change has been found yet or would be certain to be found anytime soon. Nor can it be taken for granted that EU leadership will remain unchallenged by others, including both the US and major developing countries. The EU will have to make an effort to both retain its leadership role and make it more effective so as to advance international climate policy.

Based on the aforementioned analysis, the following elements of a EU leadership strategy on climate change can be highlighted/derived:

- **"It's domestic implementation, stupid!" The need for leadership by example**. Effective domestic climate policies are the backbone of any continued EU leadership strategy on climate change. It is a precondition for the credibility and legitimacy of international leadership. It also provides for first-mover advantages which are an essential basis for continued EU leadership on climate change. Leading by example needs to be at the core of any EU leadership strategy on climate change also because the EU lacks, and is unlikely to acquire, the "hard" structural power resources otherwise required.

- **Internal coordination and unity**. Unity is a precondition for EU impact (for without unity the EU's actorness is undermined), and effective internal coordination therefore remains a *sine qua non* for EU leadership on climate

change (and other issues). Addressing this challenge has become even more pressing with the enlargement of the EU to now 27 member states. In addition to further adaptations of decision-making processes and procedures, enhanced efforts to develop a common vision and understanding of climate and energy policies should facilitate the process by helping to limit member state differences. Efforts to advance European integration and "Europeanization" in general (i.e. beyond climate change) can have important spill-over effects in this respect.

- **Intensified coordination of climate diplomacy**. If the diagnosis that structural power resources of the EU will remain limited is correct, the Union will have to put particular emphasis on developing its "soft" capabilities for leadership. In international politics, diplomacy is a primary tool and skill available to actors irrespective of their structural power. In the EU, however, diplomacy is the prerogative of foreign ministries and has largely remained in the remit of individual member states. Its potential remains to be exploited more fully for the purposes of EU leadership on climate change. While the establishment of an EU diplomatic service ("External Action Service") as a result of the Lisbon Treaty of 2007 may contribute to this aim (see also van Schaik/Egenhofer 2005), the major benefits are likely to be reaped from an improved coordination of the diplomatic efforts of member states (strengthening, and going beyond, existing efforts).

- **Getting the architecture of the international framework right**. Beyond the politics of the day and the focus on the core issues of substance in the upcoming international negotiations (e.g. emission reduction efforts after 2013), it is of crucial importance to further develop the architecture of the international framework (decision-making process, entry and exit rules, dealing with complexity of agendas, etc.). The international process needs a robust long-term basis and direction, given that international climate policy requires taking cooperative action over several decades. True leaders also distinguish themselves by thinking ahead of others and preparing the ground for sustainable solutions and next steps. The EU is among the limited number of actors who have the skill and capacity to think ahead and develop appropriate models of the future process. In this way, it can make a crucial contribution to shaping the future discourse (and thus also the opportunity structures for continuing its own leadership).

Continued international leadership of the EU on the issue cannot be considered a given, but will require a targeted and conscious effort. With support for action on climate change gaining ground in the US and major developing countries, EU leadership will not continue

"by default". Clearly, the political will to advance EU leadership on climate change has been growing over the past 1-2 years. To be effective, however, it needs to be guided by a realistic and smart leadership strategy that is grounded in a hard-nosed analysis of the EU's strengths and limitations as well as of the evolving international context and the position of the EU in it.

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Concepto de desarrollo sostenible y principio de protección del medio ambiente en la Unión Europea

INTRODUCCIÓN

El objeto de este artículo es evaluar la recepción del concepto económico de desarrollo sostenible en la Carta de Derechos Fundamentales de la Unión (en adelante CDF), específicamente en el principio jurídico de protección del medio ambiente. Para ello, se parte del alcance del concepto de desarrollo sostenible desde la perspectiva económica, haciendo particular énfasis en las teorías sobre la compatibilidad entre crecimiento económico y preservación del medio ambiente. En un segundo momento analizaremos la construcción del denominado principio de Protección del medio ambiente en Carta de Derechos Fundamentales de la Unión, prestando especial atención a las limitaciones de la misma. Por último, en la conclusión del trabajo, delimitaremos los efectos potenciales que, en las demandas que la economía proyecta sobre el concepto económico de desarrollo sostenible, despliega el principio jurídico de protección del medio ambiente.

CRECIMIENTO ECONÓMICO Y MEDIO AMBIENTE: EL ALCANCE DEL CONCEPTO DE DESARROLLO SOSTENIBLE

Según el concepto acuñado en 1987 en el Informe Brundtland([1]), entendemos por desarrollo sostenible se refiere al conjunto de vías de progreso económico, social y político que atienden a las necesidades del presente sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades.

En este sentido, frente a las posturas limitacionistas esta teoría mantiene una opción en favor del crecimiento económico: no se renuncia a la creación de riqueza, aunque se considera que el progreso de los pueblos no se mide exclusivamente por los ascensos de la renta per cápita, sino que abarca un contenido más amplio, ligado a la noción de calidad de vida([2]).

En cuanto a la sostenibilidad de ese desarrollo, se basa en respetar lo que los teóricos de la economía de los recursos naturales han dado en llamar capacidad de sustentación o capacidad de carga del Planeta. Es decir, la tasa de utilización de los recursos no ha de exceder su tasa de regeneración y, además, la tasa de emisión de desechos no debe rebasar la tasa de asimilación por los ecosistemas.

El nudo de este concepto se halla, en suma, en admitir la complementariedad del crecimiento económico y el progreso social con el respeto al entorno natural, de manera que se garantice la viabilidad de la vida humana en siglos venideros (solidaridad intergeneracional), así como la calidad de vida de las generaciones actuales (solidaridad intrageneracional o equidad geopolítica).

Esta terminología tan extendida en el ámbito de la ecología económica no está, sin embargo, exenta de complicaciones. Antes de nada deberíamos preguntarnos qué se entiende por solidaridad. Bajo nuestro punto de vista, un comportamiento solidario consiste en el empeño decidido de un individuo o de un grupo por hacer suyo el problema de otros, aportando todo lo que esté en sus manos para su resolución.

Puede parecer ingenuo y hasta irrelevante el intento de definir la solidaridad, y sin embargo es crucial: las consideraciones éticas son esenciales en el análisis de la dimensión intergeneracional de los problemas ambientales. La evaluación de las externalidades me-

([1]) UN World Commission on Environment and Development, 1987.
([2]) Pearce, *et al., Blueprint for a Green Economy*, Londres: Earthscan Publications, 1989.

dioambientales transferidas al futuro no sólo choca con obstáculos científicos que impiden realizar previsiones ajustadas acerca de las consecuencias sobre la biosfera de las actuaciones presentes. Desde el punto de vista del cálculo económico, desconocemos las preferencias de los agentes del futuro, atendiendo a las cuales deberíamos poder decidir qué legarles, y en qué proporciones: más de calidad ambiental o más de crecimiento industrial. En tal situación, la ciencia económica carece de un patrón de comparación entre beneficios presentes y venideros, de modo que las predicciones al respecto contienen necesariamente valoraciones éticas.

La primera dificultad a salvar al adoptar cualquier decisión de política medioambiental que intente tener en cuenta a las generaciones futuras se halla en el factor incertidumbre, que se manifiesta en diversos aspectos.

Por una parte, desconocemos el ritmo al que avanzará la tecnología en lo sucesivo. Por tanto, no sabemos si en un futuro más o menos cercano se lograrán paliar a costes razonables los efectos nocivos sobre el medio ambiente que causa nuestra actividad actual, o si, por el contrario, esos efectos pueden devenir irreversibles. Otro elemento de incertidumbre aparece por la falta de consenso científico acerca de la magnitud de los efectos de la actividad humana sobre la evolución de los ecosistemas. En tales circunstancias, la ciencia económica carece de un marco teórico-científico robusto que sirva de referencia para medir los costes y los beneficios futuros de acometer o no acciones de limitación de las actividades contaminantes en el presente, y en qué medida.

Otro obstáculo al que nos enfrentamos al intentar acotar la dimensión intergeneracional del problema medioambiental consiste en cómo atribuir valor a los recursos naturales. Y ello tanto desde el punto de vista de su valor presente: cómo determinar el valor actual de los bienes ambientales sacrificados en aras de la actividad productiva; como en cuanto a su valor futuro: cuál habría sido el valor que estos elementos ambientales revestirían en el supuesto de que se conservasen y proporcionasen utilidad a las generaciones venideras.

La cuestión de atribuir valor presente y futuro a los recursos ambientales ha sido profusamente discutida en la literatura económica([3]). Fruto de este debate, se han ido configurando distintos tipos de valor que se pueden predicar en relación con los bienes ambientales: el valor de existencia, el valor de uso, el valor de opción y el valor de cuasiopción.

En primer término, hay que tomar en consideración el *valor de existencia* de los elementos ambientales, ligado a una concepción de la naturaleza entendida como marco vital de todas las especies que habitan el Planeta. En este sentido, la propia existencia de los recursos de la naturaleza reviste un valor intrínseco frente a la alternativa de su deterioro o destrucción([4]).

En segundo lugar, hay que tomar en consideración su *valor de uso*, el más inmediatamente aprehensible: el que atañe al valor económico atribuible al disfrute de los valores ambientales en su utilización como *inputs* en la producción de otros bienes, como depósito de residuos, o bien como bienes finales que otorgan utilidad directa.

Distinguimos asimismo el *valor de opción*, que admite a su vez dos interpretaciones:

([3]) Consultar, entre otros: Arrow y Fisher, "Environmental Protection, Uncertainty, and Irreversibility", *Quarterly Journal of Economics* 88 (2): 312-19, 1974; Bishop, "Option Value: An Exposition and Extension", *Land Economics* 58 (1): 1-15, 1982; Bohm, "Option Demand and Consumer's Surplus: Comment", *American Economic Review* 65 (4): 733-36, 1975; Cicchetti y Freeman, "Option Demand and Consumer Surplus: Further Comment" *Quarterly Journal of Economics* 85 (3): 528-39, 1971; Fisher y Krutilla, "Economics of Nature Preservation", en A.V. Kneese y J. Sweeney (eds.), *Handbook of Natural Resources and Energy Economics*, Amsterdam: Elsevier, 165-89., 1985; Henry, "Option Values in the Economics of Irreplaceable Assets", *Review of Economic Studies* 41: s89 - s104, 1974; Hottelling, "The Economics of Exhaustible Resources", *Journal of Political Economics* 39 (abril): 137-75, 1931; Johansson, "Valuing Environmental Damage", en D. HELM, ed., *Economic Policy toward the Environment*, reimpresión de 1993, Oxford: Blackwell, pp. 112-36, 1991; Krutilla, "Conservation Reconsidered", *American Economic Review* 58 (4): 777-86, 1967; Lindsay, "Option Demand and Consumer Surplus", *Quarterly Journal of Economics* 83 (2): 344-6, 1969; Nordhaus, "How Fast Should We Graze the Global Commons?", *American Economic Review* 72 (2): 242-6, 1982; Olson y Bailey, "Positive Time Preference", *Journal of Political Economics* 89 (1): 1-25, 1981; Pearce y Turner, *Economics of Natural Resources and the Environment*, Londres: Harvester Wheatsheaf. Las referencias corresponden a la traducción española: *Economía de los recursos naturales y del medio ambiente*, Madrid: C.E.M.-Celeste Ediciones, 1995; Schmalensee, "Option Demand and Consumer's Surplus: Valuing Price Changes under Uncertainty", *American Economic Review* 62 (5): 813-24., 1972; Solow, "The Economics of Resources or the Resources of Economics", *American Economic Review* 64 (2): 1-14, 1974; Weisbrod, "Collective-Consumption Services of Individual- Consumption Goods", *Quarterly Journal of Economics* 78 (4) 471-7, 1964.

([4]) Este concepto de valor de existencia con contenido económico se encuentra, por ejemplo, en Krutilla, 1967, o en Pearce y Turner, 1990, cit.

Lo podemos definir como el valor otorgado por la sociedad a determinados elementos ambientales en un contexto de incertidumbre acerca de la posibilidad de usarlos en el futuro([5]). En tales circunstancias, la sociedad concede a esos bienes un valor diferente al ligado exclusivamente al bienestar que espera obtener de su utilización en el futuro. Esa divergencia surge precisamente por la consideración del valor de reservarse la opción de consumo posterior([6]).

La segunda interpretación atribuida al concepto de valor de opción da un paso más en la consideración de la incertidumbre, poniendo el énfasis en la eventual irreversibilidad. Con ello se construye el concepto de *valor de cuasiopción* de los elementos ambientales, que es "el valor de preservar opciones para usos futuros, dada la esperanza de aumento del conocimiento". En definitiva, hace referencia al valor de la información que puede conseguirse dilatando en el tiempo la realización de actuaciones que podrían afectar negativamente a determinados elementos del entorno; información que se perdería en el caso de llegar a un deterioro irreversible.

Pero el problema de la dificultad en la atribución de valor futuro a los elementos ambientales no es el último que se plantea a la hora de hacer un análisis coste-beneficio que permita tener en cuenta a las generaciones futuras. Es obvio que el escollo fundamental reside en el hecho de que éstas no están presentes hoy para manifestar sus preferencias. Y sin embargo, de alguna forma habrá que tomarlas en consideración.

Cuando los agentes individuales adoptan sus decisiones de consumo y ahorro, lo hacen sobre la base de un horizonte temporal finito: la duración de la vida humana, o en el mejor de los casos, de las generaciones sucesivas más próximas. Por lo tanto, y ante la falta de certeza de vivir en el futuro, se pondera con un peso mayor el consumo actual.

En cambio, cuando hablamos de decisiones públicas en materia ambiental, no está tan claro que deba descontarse el futuro. Ni mucho menos lo está la tasa de descuento a aplicar([7]). El horizonte temporal que debe contemplarse al adoptar decisiones públicas respecto a

([5]) La formulación del valor de opción como prima de riesgo ante un futuro incierto se apunta inicialmente por Lindsay, 1969, y es posteriormente compartida, entre otros, por Schmalensee (1972), Ciccetti y Freeman, 1971, Bohm, 1975 y Bishop, 1982.

([6]) Por lo tanto, el valor de opción así construido podría ser positivo, negativo o cero, dependiendo no sólo de la propia consideración que la sociedad haga del bien, sino de que la sociedad sea o no aversa al riesgo.

([7]) Eso sí, estamos hablando de políticas públicas, de modo que la tasa de descuento social en relación con los recursos naturales, de aplicarse, debería ser en todo caso inferior a la del mercado, debido a la presencia de efectos externos y de incertidumbre (Hotelling, 1931, cit.).

la conservación de la naturaleza ya no se limita a una generación([8]). Esta consideración sirve de apoyo a quienes opinan que es éticamente incorrecto descontar el futuro. Aplicar cualquier tasa de descuento positiva implicaría, desde este punto de vista, estar discriminando sin fundamento a las generaciones futuras.

Conceder un peso cada vez menor a las magnitudes futuras conforme nos alejamos en el tiempo puede conllevar la adopción de decisiones beneficiosas en el corto plazo pero de consecuencias catastróficas en el futuro: pérdidas irreversibles de biodiversidad, aumento de la temperatura del Planeta, elevación del nivel de los océanos por la desintegración de los casquetes polares, daños irreparables en los ecosistemas, etc. Y cuanto mayores tasas de descuento se apliquen, a mayor velocidad se provocarían tales desastres([9]). Admitir tasas de descuento superiores a uno implica conceder menor importancia a las necesidades de las generaciones futuras. Por consiguiente, en un marco de solidaridad intergeneracional la tasa de descuento del futuro debe ser como mínimo igual a la unidad.

Sin embargo, estos planteamientos favorables a tasas de descuento bajas también son objeto de diversas críticas. Se argumenta que el empleo de tasas de descuento social bajas entraña el peligro de alterar el equilibrio entre las decisiones de consumo e inversión a favor de ésta última; siendo así, si el capital es intensivo en materias primas o energía, la degradación ambiental puede verse acelerada por esta vía.

En resumidas cuentas, la doctrina dista mucho de ser pacífica en torno a esta cuestión del descuento del futuro en relación con la valoración de la calidad ambiental. En todo caso, conviene no perder de vista que cualquier descuento que le apliquemos al futuro será hecho en condiciones de incertidumbre; y que la fuente principal de esa incertidumbre no viene tanto por la vía de la ignorancia de la renta de que dispondrán las sociedades venideras sino del desconocimiento de las preferencias de sus miembros y de que no disponemos de ningún mercado donde averiguar esa información([10]).

Dicho esto, la vía de integrar los razonamientos enfrentados en torno al descuento del futuro es considerar el argumento de la sostenibilidad en el análisis. Al evaluar cualquier actuación presente debería tenerse en cuenta la necesidad de compensar cualquier daño

([8]) En este sentido, Samuelson, 1958, "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money", *Journal of Political Economy* 66 (6): 467-82, y Diamond (1965): "National Debt in a Neoclassical Growth Model", *American Economic Review* 55 (5): 1126-150, fueron pioneros en desarrollar la teoría de las generaciones solapadas.

([9]) Solow, 1974, cit.: p. 8.

([10]) Schmalensee, 1972, cit.: p. 823.

ambiental que se genere a través de la restauración y la rehabilitación, de manera que se garantice el mantenimiento de unas existencias de capital ambiental adecuadas para el desarrollo de la vida humana en el futuro.

La breve descripción realizada de la dimensión intergeneracional del problema de la preservación del medio ambiente nos sirve para destacar, por último, una faceta de la singularidad de estos nuevos bienes públicos. Bienes que son, en definitiva, distintos de los tradicionalmente considerados como tales, y que están llamados a satisfacer la necesidad de una mayor calidad de vida y la seguridad de mantener ésta para las generaciones futuras. Bienes que, por consiguiente, van a requerir soluciones en buena medida distintas y más globales que las ofrecidas por la Hacienda Pública tradicional.

En efecto, la exigencia de compatibilizar las necesidades de crecimiento económico con el mantenimiento de la calidad ambiental ha dado lugar a la apertura de novedosas e imaginativas vías de control de la degradación ambiental. Estos nuevos instrumentos persiguen combatir la degradación del medio ambiente a unos costes asumibles para las empresas y los individuos. Nos estamos refiriendo a la proliferación del uso de instrumentos como los mercados de permisos de contaminación en el control de fenómenos como la lluvia ácida y, más recientemente y teniendo a la UE como pionera, las emisiones de efecto invernadero. La más reciente tentativa de aplicación de estos mecanismos va referida a uno de los problemas más acuciantes: la escasez de agua, y está empezando a estudiarse, en una fase aún muy preliminar, la posibilidad de crear un sistema de derechos transferibles al agua por parte el gobierno holandés.

LA PROTECCIÓN DEL MEDIO AMBIENTE EN LA CARTA DE DERECHOS FUNDAMENTALES DE LA UNIÓN

Introducción

Como es sabido, la Protección del medio ambiente se recoge en el artículo 37 de la Carta de Derechos Fundamentales de la Unión Europea proclamada solemnemente por el Parlamento Europeo, el Consejo y la Comisión en Niza, el siete de diciembre del año dos mil([11]), y posteriormente sería mantenido inmoto en el II-97 del malogrado Tratado por el

([11]) Los arts. 37 y II-97 mencionados rezan: "Protección del medio ambiente: En las políticas de la Unión se integrarán y garantizarán, conforme al principio de desarrollo sostenible, un nivel elevado de protección del medio ambiente y la mejora de su calidad". La Carta se publicó en el *Diario Oficial de las Comunidades Europeas* de 18-12-2000, C 364/1.

que se establece una Constitución para Europa. Actualmente todas las apuestas de cara al Tratado de Reforma, apuntan a que la Carta se quedará fuera del Derecho Originario.

La elaboración de este precepto en la Convención fue muy criticado por algún de los miembros de la misma([12]). Según dicha visión, la Convención no llegó a plantearse el debate en profundidad del derecho ni sus múltiples implicaciones lo que significó la imposibilidad de redactar el precepto de forma ambiciosa, recogiendo el umbral de contenido que demandaba el momento histórico. Ello, a parte de la voluntad política inicial([13]), se debió, por un lado, a la ausencia absoluta de especialistas en materia ambiental en la Convención; por otro, a la demora con la que las organizaciones y entes remitieron sus contribuciones sobre el particular a la Convención, buena parte de ellas durante el verano de 2000 cuando ya se estaba cerrando la Carta para remitirla al Consejo Europeo de Biarritz([14]).

El reconocimiento internacional del principio medioambiental

El primer instrumento internacional de relevancia que recibe el problema ambiental es el Pacto Internacional de Derechos Económicos, Sociales y Culturales de 1966, que vincula la necesidad de mejorar el medio ambiente como uno de los requisitos para el adecuado desarrollo de la persona. Con mayor precisión la Declaración de las Naciones Unidas sobre el Medio Ambiente Humano de 1972([15]), conocida como la Declaración de Estocolmo, establece ya un derecho del hombre a "condiciones de vida satisfactorias en un ambiente cuya calidad le permita vivir con dignidad y bienestar", igualmente se establece el "deber solemne de proteger y mejorar el medio ambiente para las generaciones presentes y futuras".

La década de los noventa ha sido sin duda la de la eclosión del reconocimiento del medioambiente, tanto dentro como fuera del acervo de Naciones Unidas, así con carácter general como sectorial. Sirvan de ejemplo las siguientes: la Convención sobre diversidad biológica de 5 de junio de 1992; el Protocolo de Kioto sobre cambio climático de 11 de diciembre de 1997; el Protocolo de Cartagena sobre seguridad biológica de 29 de enero de 2000; la Convención de Aarhus sobre el acceso a la información, participación pública

([12]) G. Braibant: *La Charte des droits fondamentaux de l'Union Européenne,* Éditions du Seuil, Paris, 2001, pp. 203-204.

([13]) Véase la contribución de Braibant/Meyer, CONtrib 258 de 4 de julio de 2000.

([14]) Una visión global sobre la problemática de los Derechos Fundamentales en la Unión en J. M. Martínez Sierra, "La protección de los Derechos Fundamentales en la Unión", *Teoría y Realidad Constitucional*, nº 15, 2004, 488-498.

([15]) *Informe de la Conferencia de las Naciones Unidas sobre el Medio Ambiente, Estocolmo, 5 a 16 de junio de 1972* (publicación de las Naciones Unidas, número de venta: S.73.II.A.14 y corrección), cap. I.

en la toma de decisiones y acceso a la justicia en materia de medio ambiente de 15 de junio de 1998, etc.

En paralelo, dicha década vio el relanzamiento del proceso iniciado en Estocolmo en 1972, en primer lugar en Río de Janeiro y diez años más tarde en Johannesburgo. En primer lugar con la Conferencia de las Naciones Unidas sobre el Medio Ambiente y el Desarrollo, celebrada en Río de Janeiro([16]). En ella se acordó que la protección del medio ambiente, el desarrollo social y el desarrollo económico eran fundamentales para lograr el desarrollo sostenible. Se alcanzaron "los principios de Río" sobre desarrollo sostenible y, para alcanzar este objetivo, se aprobó un programa de alcance mundial titulado "Programa 21"([17]) y la Declaración de Río sobre el Medio Ambiente y el Desarrollo.

En el intervalo entre la Conferencia de Río y la de Johannesburgo, tuvieron lugar varias conferencias bajo los auspicios de las Naciones Unidas, entre ellas la Conferencia Internacional sobre la Financiación para el Desarrollo([18]) y la Conferencia Ministerial de Doha([19]). Estas conferencias, si bien tuvieron una dimensión mucho mayor que la basada en el problema ambiental, relanzaron el concepto de crecimiento global y social, integrador del cuidado ambiental, que se recogería posteriormente de forma destacada por la Declaración de Johannesburgo sobre el Desarrollo Sostenible([20]). En su punto 13 se recogen sin ambages la realidad del continuo deterioro medio ambiente mundial: "continúa la pérdida de biodiversidad; siguen agotándose las poblaciones de peces; la desertificación avanza cobrándose cada vez más tierras fértiles; ya se hacen evidentes los efectos adversos del cambio del clima; los desastres naturales son más frecuentes y más devastadores, y los países en desarrollo se han vuelto más vulnerables, en tanto que la contaminación del aire, el agua y los mares sigue privando a millones de seres humanos de una vida digna." De ahí surge el compromiso con la diversidad y con el medio.

El contenido del precepto

De todo este acervo y de la propia idiosincrasia del derecho la doctrina conviene en acordar que el derecho al medio ambiente, en sentido genérico, contiene dos dimen-

([16]) *Informe de la Conferencia de las Naciones Unidas sobre el Medio Ambiente y el Desarrollo, Río de Janeiro, 3 a 14 de junio de 1992* (publicación de las Naciones Unidas, número de venta: S.93.I.8 y correcciones), vols. I a III.

([17]) Ibíd., vol. I: *Resoluciones aprobadas por la Conferencia*, resolución 1, anexos I y II.

([18]) *Informe de la Conferencia Internacional sobre la Financiación para el Desarrollo, Monterrey (México), 18 a 22 de marzo de 2002*, Publicación de las Naciones Unidas, nº S.02. II.A.7, cap. I, resolución 1, anexo.

([19]) Véase A/C.2/56/7, anexo.

([20]) Adoptada en la 17ª sesión plenaria, celebrada el 4 de septiembre e de 2002.

siones: una el derecho al medio ambiente adecuado y otro a su protección. "El medio ambiente adecuado no es un fruto del desarrollo social sino un *prius* para su existencia. Es un derecho vinculado a la propia vida humana: *ubi homo, ibi societas; ubi societas, ibi ius*. El medio ambiente adecuado precede lógicamente al propio Derecho: sin medio ambiente adecuado no hay hombre, ni sociedad, ni Derecho. Por tanto, cuando se juridifica su protección se produce en dos sentidos. Por un lado, se le reconoce como derecho humano o fundamental; y, por otro, se encomienda a los Poderes Públicos, parte de cuyos instrumentos son las leyes, su conservación y tutela"[21]. Pues bien, solamente esta segunda dimensión se reconoce en la CDF, es decir, no se reconoce el "derecho a un medio ambiente adecuado" sino exclusivamente el derecho a la "protección al medio ambiente". Con ese desgajamiento contranatural se eliminan las posibilidades de justiciabilidad basadas en el derecho. Solamente queda abierta la dimensión de la aplicabilidad desde el nivel del Derecho originario y la espera al desarrollo legislativo y para un aspecto limitado el "desarrollo sostenible", si el Tratado de Reforma obstase por incluir la CDF en el predicho Derecho. Y la aplicabilidad, cuando se basa en un principio rector objetivo, sectorial, y no tiene en su frontispicio la protección de derechos subjetivos de carácter general, puede permitirse tirar por elevación olvidándose del mismo.

El derecho, titulado "Protección del medio ambiente", reza: "En las políticas de la Unión se integrarán y garantizarán, conforme al principio de desarrollo sostenible, un nivel elevado de protección del medio ambiente y la mejora de su calidad." La formulación guarda similitud con la segunda parte del artículo 35: "Al definirse y ejecutarse todas las políticas y acciones de la Unión se garantizará un nivel elevado de protección de la salud humana." Sin embargo, junto con los elementos comunes de ambos preceptos respecto a la hemenéutica sobre la técnica constitucional utilizada, es necesario realizar alguna precisiones, atendiendo a su naturaleza diferenciada del precepto aquí analizado.

En primer lugar, simplemente recordar que en el II-95 la cláusula juega sobre el reconocimiento previo del derecho del que trae causa. Aquí, por el contrario, estamos ante el llamativo y heterodoxo desgaje del derecho madre.

En segundo lugar, aunque en ambos preceptos se recoge el mismo nivel de protección, aquí se condiciona el nivel elevado de protección del medio ambiente y la mejora de

(21) D. Loperena Rota: "Los derechos al Medio Ambiente adecuado y a su protección", Revista electrónica de derecho ambiental, nº 9, 2004. Véase igualmente: M.Carmona Lara: *Derechos en relación con el medio ambiente*, Instituto de Investigaciones Jurídicas de la UNAM, Mexico, 2000, pp. 10-14.; P.SANDS: *Principles of international environmental law, Frameworks, standards and implementation*, Volume I, Manchester University Press, Manchester and New York, 1995, pp. 15 y ss.

su calidad a un elemento supuestamente externo: el "principio de desarrollo sostenible". Sobre el particular, simplemente cabe señalar que la referencia puede considerarse expletiva y en consecuencia suprimible. Todo nivel de protección elevado del medio ambiente conlleva necesariamente el respeto al principio de desarrollo sostenible, y lo mismo puede decirse respecto a la mejora de su calidad. Con la Carta constitucionalizada, podría considerarse que el hecho de que el legislador europeo pretendiese lo contrario, utilizar el artículo II-97 para tomar medidas contrarias al desarrollo sostenible, podría ser considerado como abuso de derecho y contrario al artículo II-114 la CDF. Por estos motivos no considero que tal mención pueda ser parámetro indicador del nivel de protección, si bien es cierto que la reproducción de esta lógica debe estar a la recepción que el Tratado de Reforma de a la Carta dentro del Derecho comunitario([22]).

Un último aspecto que queda también pendiente del trato que el Tratado de Reforma de a la Carta dentro del Derecho comunitario y de la permanencia de la Parte III del Tratado Constitucional, es la recepción de aspectos conexos al regulado en el Tratado Constitucional. Con similitud respecto del artículo II-95 destaca la existencia de la recepción mimética, en la parte tercera del Tratado Constitucional, del contenido del precepto analizado, en concreto a través del artículo III-119, que literalmente disciplinaba que "las exigencias de la protección del medio ambiente deberán integrarse en la definición y ejecución de las políticas y acciones contempladas en la presente Parte, en particular con objeto de fomentar un desarrollo sostenible." Son pues aquí validas las reflexiones sobre los límites genéricos y específicos expuestos allí. Sin embargo no son extrapolables las flexibilizaciones que aquí puede sufrir el principio general, fundamentalmente para facultar tratamientos diferenciados a las regiones menos desarrolladas económicamente.

Por ejemplo, el apartado 2 del artículo III-233, considera que la política medioambiental de la Unión tendrá como objetivo un nivel elevado de protección, teniendo presente la diversidad de situaciones existentes en las "distintas regiones de la Unión." A la sazón, en el apartado 3 del mismo precepto, se establece que en la elaboración de su política medioambiental, la Unión tendrá en cuenta, entre otras, "el desarrollo equilibrado de sus regiones."

([22]) Huelga recordar que la desaparición del Título VII de la parte II del Tratado Constitucional será un de los elementos cruciales a tener en cuenta en relación con la CDF tras el Tratado de Reforma. En detalle sobre su implicación en el Tratado Constitucional J. M. Martínez Sierra, "La Carta de Derechos Fundamentales", En: *La Constitución destituyente de Europa*, Ed. Libros de la Catarata, 2005, 35-68.

CONCLUSIONES

El juicio sobre la delimitación de los efectos potenciales que, en las demandas que la economía ejerce sobre el concepto económico de desarrollo sostenible, despliega el principio jurídico de protección del medio ambiente, viene condicionado por una realidad: la interacción entre la connatural rigidez jurídica y la necesidad de flexibilidad de la economía de mercado. La predicha realidad, trascendente siempre en las relaciones entre derecho y economía, fuera y dentro de la Unión, cobra realce en un ámbito como el de este estudio, pues la sola formulación del desarrollo económico sostenible presume un compromiso del gobierno económico de modular el crecimiento económico atendiendo a las exigencias de un bien jurídico y económico superior, el medio ambiente.

Sin embargo, la común supeditación de lo jurídico a lo económico en la UE, que tiene su manifestación paradigmática en la superación del concepto de Constitución económica en los estados miembros de la Unión([23]), se manifiesta igualmente en este ámbito sectorial. Dicha realidad constata que el concepto económico de desarrollo sostenible y sus exigencias van a determinar el devenir de la Unión en este ámbito. Lo dicho es más válido si cabe con la no constitucionalización de la Carta en el Tratado de Reforma.

Situados aquí, la recepción que la CDF hace de un derecho fundamental de nueva generación no está a la altura de los tiempos. Es un reconocimiento limitado, sectorial que se centra en un aspecto importante pero ni siquiera cercano a colmar las dimensiones del derecho fundamental. La recepción es fruto de su objetivo, no se trata de un rompimiento pro futuro que otorgue más derechos a los europeos y sitúe a la Unión Europea, frente a los Estados Unidos, como paladín de la protección del medio a nivel global. Se trata de pasar el requisito mínimo de los instrumentos internacionales sin que dicho reconocimiento suponga carga al margen de lo establecido por el legislador y sin interferir en el crecimiento económico.

Si uno observa el V Programa Comunitario de Acción en materia de Medio Ambiente para 1992-2000([24]) y el VI Programa Comunitario de Acción en materia de Medio Ambi-

([23]) Vid. J.M. Martínez Sierra, "La Constitución económica en España y la Unión Europea", en Ortiz, A. et al (Coor.), *Globalización y Derechos*, Dilex, 2007.

([24]) Decisión nº 2179/98/CE del Parlamento Europeo y del Consejo de 24 de septiembre de 1998 relativa a la revisión del Programa comunitario de política y actuación en materia de medio ambiente y desarrollo sostenible «Hacia un desarrollo sostenible», Diario Oficial nº L 275 de 10/10/1998, pp. 1-13.

ente para 2001-2010([25]), constata que el legislador comunitario ha diseñado toda la acción medioambiental al margen de la concepción del derecho al medio ambiente adecuado, y eso que el segundo programa se aprobó el 29 de mayo de 2001, habiendo sido la Carta de Derechos Fundamentales de la Unión Europea proclamada solemnemente por el Parlamento Europeo, el Consejo y la Comisión en Niza, el siete de diciembre del año dos mil. Pues bien, tal discrecionalidad es la que se iba a constitucionalizar y, ciertamente, la que permanecerá en el Tratado Constitucional con la no constitucionalización de la CDF.

([25]) Propuesta de decisión del Parlamento Europeo y del Consejo por la que se establece el Programa Comunitario de Acción en materia de Medio Ambiente para 2001-2010, COM/2001/0031 final - COD 2001/0029, Diario Oficial nº C 154 E de 29/05/2001, pp. 218-0225.

III. Sustainable Development from a Sectoral Perspective: Energy and Water in a Global Context

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Sustainable Energy, Security, and the European Union in a Global Context

The design and performance of national, regional, and global energy systems strongly influence issues of major societal concern and sustainability. These include matters related to population and economic growth, poverty, peace, security, environment, including climate change, resources management, technology, urban infrastructure, and financial matter issues as well as trade. Energy systems supporting national and international objectives in these areas are referred to as energy for sustainable development or, in short, sustainable energy. I will attempt to indicate briefly some demands on future energy system originating from different dimensions of sustainable development.

MAJOR CHALLENGES CONCERNING ENERGY AND SUSTAINABILITY

The challenges that require action in the field of energy to achieve sustainability have been discussed since the Brundtland report in 1987. I would like to identify six major essential dimensions of the sustainability challenge that are linked to energy:

- **Secure** energy supplies. Europe is importing increasing quantities of primary energy creating concerns about security of supply;
- **Climate change** mitigation that I will expanded on below;
- **Access** to modern forms of energy. About 1.5 billion people lack access to electricity, and about 2.5 billion people have no access to clean cooking fuels;
- **Affordability** of energy services. It should be noted that affordability obviously has a different meaning in different contexts – for households, corporations, and nations. While increases in the price of oil do not have a major impact on families and nations in Europe they do on families and nations in the developing world;
- Local and regional **environmental** challenges. This includes indoor and urban air pollution, and acidification, affecting human and ecosystem health;
- **Ancillary risks** linked primarily to nuclear energy, including nuclear weapons proliferation, nuclear reactor safety and waste, and terrorist issues.

All these dimensions need to be addressed ***simultaneously, adequately,*** **and** ***timely***. This requires focussed attention and action on the relevant energy related investments to come, both at the demand and the supply side. To accomplish this, a paradigm shift is needed.

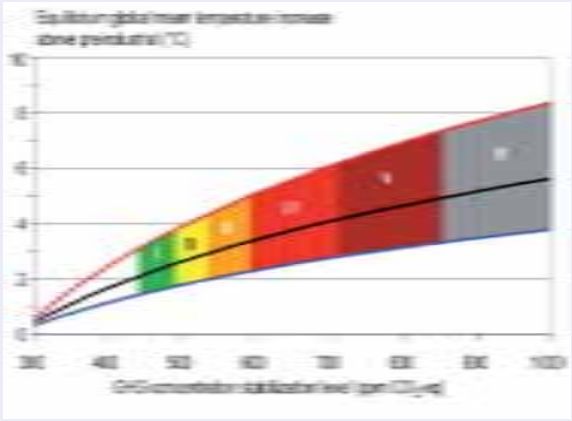
The major elements of a new paradigm will be much increased levels of energy end-use efficiency, significantly higher utilisation of renewable energies, and probably carbon capture and storage. Increased use of renewable energies and improved energy efficiency has the potential to support objectives related to all of the issues mentioned above *simultaneously.* I will expand on some of the issues mentioned.

CLIMATE CHANGE: THE EU TARGET ON LIMITING GLOBAL TEMPERATURE INCREASE

I would now like to address the global temperature increase limitation target of the EU, adopted in order to avoid dangerous climate change. The target is to limit global mean temperature increase to less than two degree temperature Celsius above the pre-industrial level. To stabilize the temperature increase requires stabilization of atmospheric greenhouse gas (GHG) concentration. The following graph shows a link between the tempera-

ture increase and the GHG concentration stabilization level. To stay below the maximum two degrees increase limit, GHG concentrations would have to stabilize at 400-450 ppm CO_2eq. The present level is about 430 CO_2eq, which is already the level at which stabilization is needed to stay bellow a two degree temperature target. We should bear in mind that a "degree" is by no means a small entity, as illustrated by the fact that the global mean temperature difference between the last ice age and current world is only six degrees. The world is at present approximately 0.7 degrees warmer that at pre-industrial times. We should not underestimate the significance of seemingly small numerical changes.

For the atmospheric GHG concentration to stabilise at this level, annual global emissions of GHG need to be reduced by at least 50 per cent by 2050, and to zero at the end of this century. About two thirds of total GHG originate in the energy system. Total GHG emissions after 2000 have been growing by over 3 per cent per year. The global human society is thus not moving in the necessary direction of limiting global warming!



Source: IPCC, AR4, Summary for Policymakers

ECONOMIC GROWTH, POVERTY ALLEVIATION, AND EMISSIONS

The following graph shows cumulative populations by regions and per capita GHG emissions. The poorer countries are to the right on the graph, which shows how different the emissions per capita are around the world. The figure shows clearly that developed countries produce much more emissions per capita than developing ones. The difference is even larger if the emissions embedded in trade are accounted for, that is a significant

fraction of emissions, e.g. in China, originate in the production of goods exported, e.g. to OECD countries. It is important to acknowledge this fact and set a target for emission production that can be reached by developing countries without compromising poverty alleviation and economic growth.

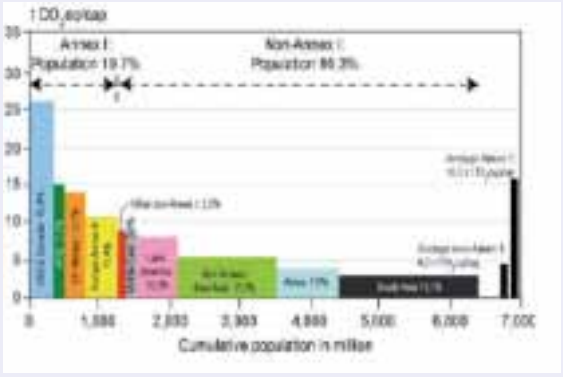


Figure TS.4a: Distribution of regional per capita GHG emissions Kyoto gases including those from land-use over the population of different country groupings in 2004. The percentages in the bars indicate a region's share in global GHG emissions.

Source: IPCC, AR4, Summary for Policymakers

The question is if it would be possible to keep energy consumption more or less stable without limiting a country's development. I believe the following line of thought is interesting in this context. If we assume that activity levels per capita (kg of steel, paper, food, etc. per capita; m^2 of commercial and residential building space per capita; transport per capita, etc.) equal those of Western Europe in the mid 1970s and at the same time we assume energy intensities at the level of best available in markets around 1980, it results in an energy demand of about 9000 kWh per capita per year. It might be surprising, but this is the same as present levels of energy demands per capita in Africa. Thus, increasing per capita consumption in Africa to the level of Western Europe in the 1970s need not, in theory, require an increased level of per capita energy supply. Today, the most energy efficient end-use technologies are much more efficient than 25 years ago implying further opportunities. The issue remains how energy efficient technologies can become widely used.

AN ILLUSTRATION: INDOOR AIR POLLUTION

The urban air pollution is a well-known problem all around the world, however, it is often overlooked that indoor air pollution is a serious issue as well. There are about 2.5 billion people that cook on traditional fuels like wood, dung and agricultural residues. Many

women and children spend hours a day collecting fuels and water and, when they cook, they expose themselves to an indoor air pollution corresponding to smoking about two packs of cigarettes a day. This is a large humanitarian, health, and development problem, which easily could be solved by using cleaner fuels and new stoves.

Cooking using traditional fuels also leads to significant emissions of greenhouse gases, GHGs. It has been estimated that because of poor combustion conditions, unburnt methane and non-methane hydrocarbons, which are strong greenhouse gases, are released. These make up 5 per cent of the global GHGs emissions. This means that cooking using traditional fuels also is a significant contributor to climate change. It is interesting to note that addressing the cooking fuels issue could simultaneously provide benefits in multiple dimensions!

Access to affordable and clean cooking fuels e.g. biogas, other biofuels, or LPG must therefore increase. This is in parallel to the need to increase access to electricity, needed for income generation and poverty alleviation.

RENEWABLE RESOURCES: COST AND BENEFITS OF A BOOMING INDUSTRY

The global use of renewable resources is growing fast (except large hydro), although from a low level. Between 2000 and 2004, the use of solar energy has increased by 60 per cent per year, wind energy by about 30 per cent per year. This is a positive development and shows that a change can be accomplished. It is mainly the result of the policies that have been put in place in a few countries and not because the use of renewable energies is inherently cost competitive.

Modern renewable energy sources (except large hydro) make up only 3 per cent world's primary energy, but represented a $100 billion industry in 2007. Furthermore, 18 per cent of investments in new power generation went to renewables last year. This means that there is a rapid growth in renewable energy investment in the recent past that starts waking up major market incumbents.

What is the relation between costs and benefits of the renewable resources? The direct costs of renewable energy are generally higher than the costs of conventional sources of energy, mainly fossil fuels. However, the public benefits arising from the use of alternative resources are many: increased security of supply, reduced greenhouse gas emissions enhanced technological leadership, creation of jobs, and so on. Including the value of these public benefits in the overall evaluation will demonstrate the overall attractiveness

of investing in renewables. It is a task for public policy to make these benefits affect the market conditions for investors.

The issue of measuring costs and benefits relates to the fact that the evaluation is done primarily within the GDP system, while benefits are often outside the GDP boundaries (in terms of health, environmental degradation, biodiversity protection, poverty alleviation, enhancing peace, etc.). The benefits of improving these factors must be included in decision-making, and such values reflected in the marketplace through appropriate public policies.

The aim is to make markets work better by ensuring full and transparent information, real competition, reflecting external costs and benefits in the marketplace, and eliminating subsidies to conventional energies. These steps should all lead to increased investment in technologies that support sustainability.

In addition, renewable energy technologies and more energy efficient energy end-use technologies are in early phases of development. Costs are coming down with continued investments, as learning takes place. It can be anticipated that many of these technologies will soon become less costly than conventional energies, even without including the value of public benefits in the calculation.

For developing countries it could be more attractive to invest in renewable energy utilisation and improved energy end-use efficiency for achieving national sustainable development. For example China has the most ambitious energy efficiency target in the world, which is a 20 per cent improvement by 2010. China also has an ambitious target for renewable energy, 15 per cent of primary energy by 2020. China does this primarily to enhance security of energy supplies and to protect the local environment. However, these investments also help reduce GHG below what they would otherwise have been.

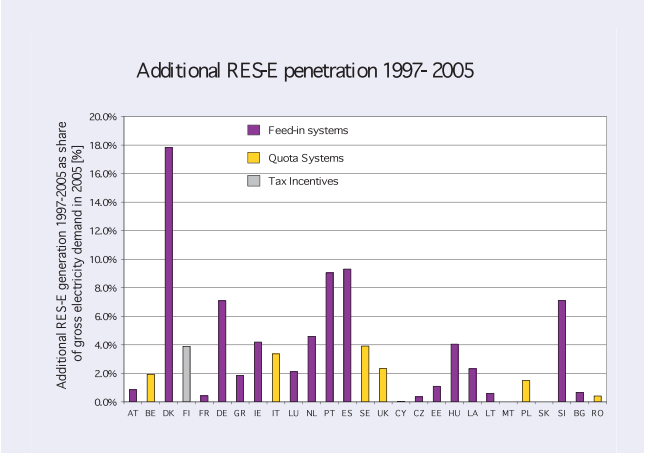
INCENTIVES FOR INVESTMENTS IN RENEWABLE ENERGIES

Governments all over Europe are trying to change the interest in renewable resources and are using different incentives. There exist so-called certificate markets, where you get an obligation to produce certain amounts of renewable energy (for example in Sweden it is 16 per cent of renewable energy by 2015) and then you get a certificate for each unit of renewable electricity generated, which allows you to meet your obligation or to sell it on the market. However, because the prices are not set, the payment is uncertain for the investors. Moreover, it is hard to agree on ambitious targets for emissions reduction

since there needs to be a general agreement. Another option is not to create obligations but rather to create favourable climate for investments in this field. In Germany, there are feed-in-tariffs where the investors get paid adequately for delivering renewable electricity under a civil contract so that payments prices are known for a significant period of time. The system works extremely well and the investors are adequately paid, which is justifiable because it is for an overriding social purpose.

The following graph shows the use of renewable energy sources in the EU countries in the period from 1997 to 2005. The three different types of system – the feed-in system, quota system and tax incentive – suggest that the feed-in system delivers more results than do certificate systems (or so-called quota systems). This graph should be an incentive for a feed-in system, although it now seems that the European Commission wants to harmonise all European renewable energy support into a certificate system.

The sector dealing with renewable energies is growing very fast through a multitude of often small and medium sized enterprises. It is a fact that the large-scale incumbent energy industry in Europe has not invested strongly in renewable power production.



Source: IPCC, AR4, Summary for Policymakers

THE GLOBAL ENERGY ASSESSMENT

The Global Energy Assessment has recently been initiated by the International Institute for Applied Systems Analysis (IIASA), which is based in Austria. This projects aims at analysing what are the challenges, magnitudes, timeframe, resources, and technological options in the field of energy in order to inform policy makers and all stakeholders. There

is a need for new energy assessment in order to identify the strategies and solutions needed to address comprehensively today's major energy challenges in an integrated way. The Assessment will be based on scientific evaluations with formal review processes, and done in a broad participatory way with regular stakeholder consultations.

The structure of the Global Energy Assessment is organized around knowledge clusters comprising of knowledge modules that will be tightly integrated. This project has a broad support by different states and organizations (such as Austria, Brazil, Sweden, United States, UNDP, UNEP, UNDO, ICSU, the World Bank, World Energy Council, WBCSD, several foundations, and others) and you are invited to become part of it. To find out more visit the website: www.globalenergyassessment.org.

CONCLUSION

I would like to stress once again that global sustainability and peace are strongly linked to the design and performance of energy systems. Major changes in local and global energy systems are therefore essential. The natural resources are abundant (especially the renewable ones), and expanded investments are needed. Many technologies exist, however, are not adequately used. With policies providing the proper incentives in the market place these technologies could be utilised right now. Research and development will have to continue to provide future options. The main question is how to create the incentives and how to deal with the institutional barriers.

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Water – Food – Environment: Europe in a Changing World

INTRODUCTION

Europe finds itself in a world under rapid change, subject to strong global driving forces: altered preferences, population growth, increasing water demand, and climate change. Since both food and biofuel production consume massive amounts of water, a global scale competition may be foreseen for both water and land. European decisions also tend to influence water and environmental conditions in the rest of the world in terms of both expectations generated and of environmental impacts caused. Also poverty-driven migration pressure influences Europe. It is therefore an issue of European interest to stimulate a build up of societal water resilience against droughts, dryspells and desertification.

SOME WATER BASICS

Relating water and food to the environment demands, a conceptual clarification of "environmental sustainability" will be essential. In the Task Force on Environmental Sustainability in the Millennium Project (TF6) it was understood as *non-undermining of the life support syste* (1). Water plays a very central role in this connection in the sense that it constitutes the bloodstream of the biosphere.

Hydroclimatic regional differences

Fundamental hydroclimatic differences between different regions characterise the life support system. **Figure 1** illustrates the difference between precipitation, evaporation and runoff generation in three different hydroclimatic zones (2): the temperate zone with boreal forests (N Europe), the semiarid tropical zone with savanna vegetation and the humid tropical zone with rainforest. The majority of the poor and undernourished, of the order of 1 bln people, live in the semiarid tropics. Half of them depend on rainfed agriculture - their lives are therefore characterised by *water-constrained conditions*.

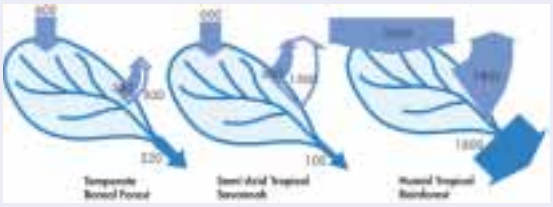

Figure 1. Water balance contrasts in terms of annual precipitation, potential (white) and actual evaporation (full) and runoff generation.

Water's many functions

In both society and the natural environment, water has a number of parallel functions which calls for an integrated approach to water resources management (**Figure 2):**

- we depend for survival on continuously adding water to support our *body functions*. If the water added is polluted our health is threatened;
- our societies are genuinely dependent on water for *socio-economic production* functions introducing both an income raising perspective and an energy production perspective, (hydropower as well as cooling)
- the largest amounts of water are consumed in *biomass production,* whether rainfed or irrigated. Water is in fact one of the two raw materials in the production of food, fodder, fuelwood and timber; huge amounts of water are evaporating when the stomata open to take in carbon dioxide – the second raw material;

- water has fundamental *carrier functions* of both silt and dissolved matter. It is a unique solvant on continuous move through the landscape and picks up everything soluble during its move towards the river mouth. It also has a strong eroding capacity;

- finally, water forms the *habitat* for aquatic life in freshwater ecosystems.

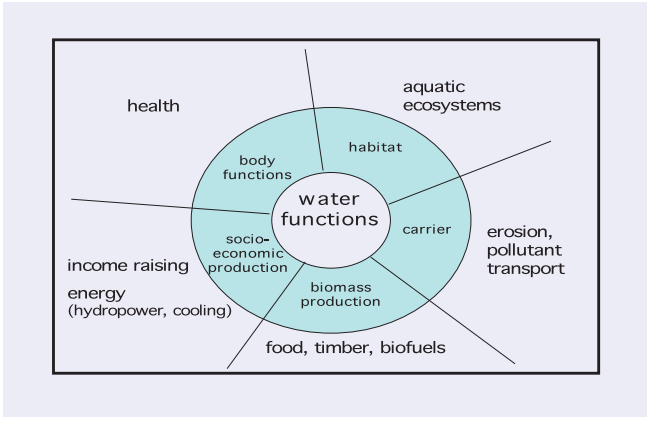

Figure 2. Water has many parallel functions as it moves through the landscape towards the mouth.

Overcoming water fluctuations

This central involvement of water in a wide variety of function, both in the life support system and the socio-economic system, makes it essential for economic development to overcome water variability linked to the climate. **Figure 3** shows the dilemma in the semiarid tropics: in water-constrained economies, hydrologic variability complicates especially food production greatly. A minimum level of water security is therefore important for making socio-economic development possible. Some typical differences in terms of access to water storage in rich and poor countries illustrate this point: while water storage per person in N America is more than 6000 m3/p yr, it is in Ethiopia only some 40 m3/p yr.

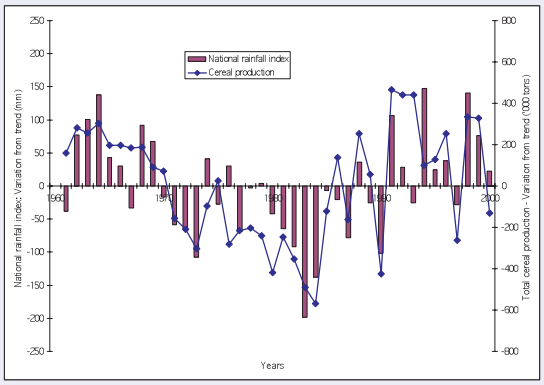

Figure 3. In semiarid tropics the highly variable rainfall strongly influences crop yields from rainfed agriculture.

As earlier pointed out by the World Bank, very clear overall differences can be seen between different categories of countries when looked at from a water security perspective (3):

- those that have *harnessed* there hydrologic situation (industrial countries)
- those that are *hampered* by their hydrological situation (emerging economies)
- those that remain *hostages* of their hydrological situation (low income countries).

CHALLENGES

Three main global challenges have now to be addressed: hunger alleviation, adequate food production, the need to replace fossil fuels, which involves i.a. biofuel production, and climate change mitigation which involves i.a. carbon sequestration by absorption into vegetation. Since water is deeply involved in all these efforts, there is a need to *secure a water-based balancing of food production, biofuel production, carbon sequestration and environmental sustainability*. This is a key sector where European policy will be driving environmental problems in the rest of the world.

Water for food production

Food production requires some 70 times more water than household use, often assumed to be 50 l/p day (assuming a decent level of quality of life) in a developing country situation. The production of food for one person demands 3 500 l/p d, assuming the level of food consumption assumed by FAO in developing world by 2030 (3000 kcal/p d) (4) and assuming 20 % animal protein (meat, diary) (5)). A recent study for the Swedish Government (6) has clarified how under rising income food preferences tends to involve increasing amounts of water (**Figure 4**), Water requirements increase particularly rapidly in poor countries. Beyond a GDP-level of some 10 000 US-dollars per person and year, the rise remains slow. Overall, water requirements are much larger in countries with much meat in their diets, less so in countries with vegetarian diets.

Water overexploitation calls for upgrading of rainfed agriculture

A fundamental problem in the world's future is that freshwater in rivers and aquifers (so-called *blue water)*, is already greatly overexploited over 15 % of continental land (7) – this is mainly the belt of irrigated countries from NE China in the east to California in the west.

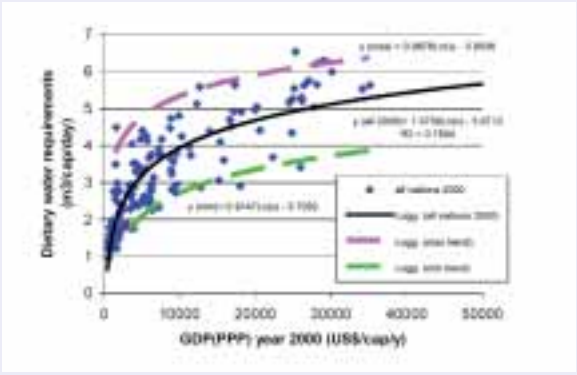

Figure 4 .Water requirements for the production of food in different countries by year 2000 as a function of GDP. Black curve shows average relation, pink the relation in highly meat-consuming countries and green in vegetarian countries. From Lundqvist et al 2007(6)

It has also been shown (8) that already some 1.4 bln people are living in river basins where water is being overexploited. Out of them 1.1 bln are living in river basins with severe water shortage. This fact has directed a new interest towards the other type of water resource involved in food production, i.e. soil moisture formed by naturally infiltrated rain, so-called *green water,* cf **Figure 5**. In order to meet the FAO-assumed food production

needed by 2030 and beyond in developing countries, an additional 5 600 km3/yr will be needed by 2050 when world population is assumed to have stabilised (9).

The rising blue water shortage means that this amount will have to be met mainly from green water, i.e. by upgrading rainfed agriculture in the semiarid tropics where undernutrition dominates. By upgrading of such agriculture, crop yields may be multiplied. Techniques are already developed and have been tested in semiarid Subsaharan Africa (10).

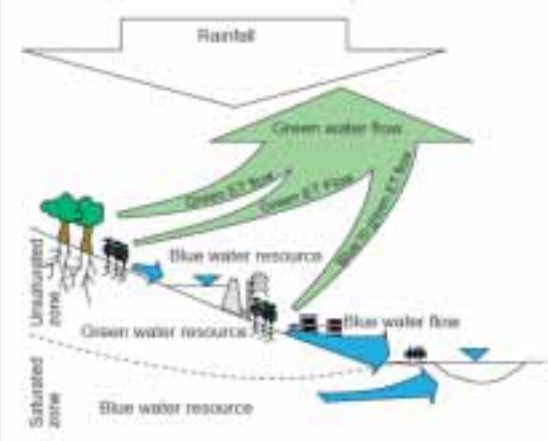

Figure 5. Rainfall partitioning between naturally infiltrated soil moisture/green water and liquid water/blue water in rivers and aquifers.

Water for biofuel production

But also fuelwood production will require massive amounts of water (6), **Table 1**. Since water is already short in the regions of the world where poverty dominates, care has to be taken that a proper balancing is being secured.

WATER	*25 ton /GJ feedstock*	*75 ton /GJ feedstock*
green water requirements	**+3917 km3/yr**	**+11 751 km3/yr**
blue withdrawals if 15 % is irrigated	**+1175 km3/yr**	**+ 3525 km3/yr**

Table 1. Water requirements for fuelwood production under different assumptions in terms of fuelwood plantations. Data from Berndes in Lundqvist et al 2007 (6).

POLICY DIRECTIONS

Since water, when moving from the rain to a river basin to the outflow through the river mouth, it links both land use and water, upstream and downstream water use, and humans and ecosystems. Therefore, all the water-dependent activities involved in socio-economic development and climate change mitigation will have to be approached in an integrated way. Trade offs will have to be stricken between the many different functions of water in catchments and river basins all around the world, in Europe itself as well as in the rest of the world. Particular attention will have to be paid to the need to secure environmental sustainability, i.e. avoid undermining of the life support system itself. In this respect, also water pollution plays a fundamental role.

Integrated Water resources Management (IWRM)

In such efforts, Integrated Water Resources Management (IWRM), highlighted in the conclusions from the World Summit in Johannesburg and already under development all around the world, will be particularly useful as a tool, **Figure 6.**

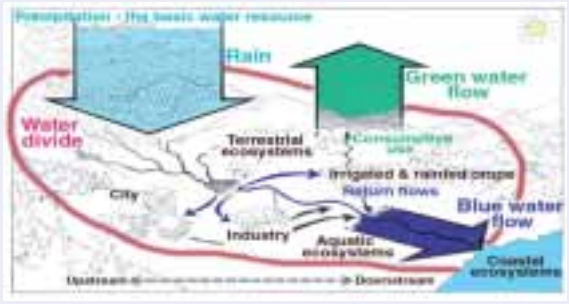

Figure 6. Within the catchment area inside a water divide, tradeoffs will have to be stricken between all water uses and water-related activities Integrated water resources management may serve as a tool.

Climate change will be experienced primarily through water-related phenomena

The trade off efforts just mentioned will have to be combined with adaptation to the ongoing climate change, expected to exacerbate if efficient mitigation efforts are not put in place to limit its consequences. The central role of water for human society means that human society will experience climate change mainly though its effect on the water cycle. **Figure 7** shows the massive changes that may be foreseen in different regions under the assumption of very rapid economic growth, convergence among regions, and technological change in energy systems (IPCC scenario A1B).

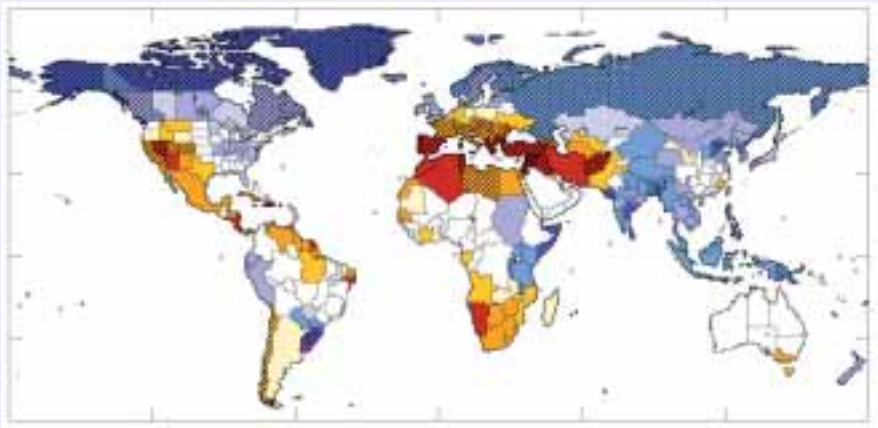

Figure 7. Mean changes of annual runoff by 2060, in percent, indicating also the degree of agreement between the 12 models used under scenario A1B (see text). Coloured parts indicate more than 66 % agreement between climate models, striped areas more than 90 % agreement. From Milly et al 2005 (11)

CONCLUSIONS

Taking the different perspectives discussed in this presentation into account, a number of recommendations can be formulated for Europe when seen in relation to global environmental sustainability:

- there has to be an awareness of the water implications of both increased food production to alleviate world hunger, of biofuel production to replace fossil fuels, and of carbon sequestration through vegetation change since they all have to compete for the same water;
- the balancing of food and biofuel production against water requirements of ecosystems, terrestrial ones depending on green water and aquatic ones depending on blue water, will be essential;
- an awareness will have to be developed in Europe of the role of European decisions as driving forces in the rest of the world, both in terms of expectations raised and role mode function, and in terms of environmental problems generated elsewhere.

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IV. Demography, Poverty, Trade, Migration and Sustainable Development Challenges

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Demography, Poverty, Migration and Challenges of World Development

> *"The Union shall offer its citizens an area of freedom, security and justice without internal frontiers, in which the free movement of persons is ensured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime."*
>
> — From the Treaty on European Union (current Article 3) (some slight changes of wording exist from and the present day)

INTRODUCTION

Poverty and distributive justice, demographic and migration preoccupations have all existed — in all human societies — for millennia, long before there was talk of 'development' at all, and certainly before there was 'sustainable development'. So the question today is, in what distinctive ways do these age-old questions of **access to resources, opportu-**

nities and wealth become incorporated into contemporary discourses and analyses of sustainable development?

Sustainability policies address, among other things, the challenge of inter-temporal (or inter-generational) equity. This is not just the natural resource depletion concern that present-day high rates of resource consumption may leave less for future prospects of consumption. It is also the problem of deep uncertainties about outcomes, of the (sometimes certain, sometimes uncertain) arrival of 'bads' – as well as goods – as components in the spectrum of the possible outcomes, and of charting a collective course in the sometimes degraded conditions of life that are the legacy of decisions in the past.

This introductory paper chooses to focus on poverty, migration and demographic questions of development from the point of view of the contemporary preoccupation with '**ecological distribution'**. This is a term which refers to the following sorts of concerns: What is the distribution of the benefits of present patterns of natural resource and environmental exploitation? What mechanisms of capital flow, military and institutional power, technological change, etc., determine these patterns over time? Who carries the principal burdens of the unwanted side-effects of resource exploitation and waste disposal? Which social groups benefit most, and which suffer most from the impairment of life-support functions and from the loss of environmental amenities resulting from environmental degradation? How are these benefits and burdens distributed across societies, across space and time? How are these asymmetries valued (or devalued)?

> ***It may be imagined, perhaps, that the law has only to declare and protect the right of every one to what he has himself produced, or acquired by the voluntary consent, fairly obtained, of those who produced it. But is there nothing recognised as property except what has been produced? Is there not the earth itself, its forests and waters, and all other natural riches, above and below the surface? These are the inheritance of the human race, and there must be regulations for the common enjoyment of it. What rights, and under what conditions, a person shall be allowed to exercise over any portion of this common inheritance cannot be left undecided. No function of government is less optional than the regulation of these things, or more completely involved in the idea of civilised society.***
>
> — John Stuart Mill, Principles of Political Economy (1848)

Analysis of these questions in terms of **ecological distribution** allows us to make important links between inequalities between nations (across space, symbolised by the term North-South) and inequalities or injustices across time — epitomised by the concept of Ecological Debt.

DECOMPOSING EHRLICH'S EQUATION (I = P×C×T)

The so-called *Ehrlich formula* is an impressionistic way of structuring the Pressure problem, that is, the relation between ways of life (as parameterised by indices of consumption) and impact on the environment. Ehrlich wrote **I** = **P**x**C**x**T**, where **I** is the total environmental impact, **P** is the relevant (human) population, **C** is the typical consumption per person within the society or region or sector being studied, and **T** is the technologically determined environmental impact per unit of consumption. So the **I** is a generic pressure indicator.

In this way of looking at things, specific pressure indicators can be developed on a sector by sector, product by product, or process by process basis for different categories of consumption, and, similarly, for different categories of environmental pressure such as energy and natural resource use, space requirements, pollution and waste discharges, and ecosystem impacts.

However, for any chosen environmental problem, many different scales of change are relevant and, moreover, one will always find contrasting perspectives with regard to the effects of changes in the system. Changes judged as improvements for certain social groups, over a certain time horizon, can represent a step back for others, or on a different time-scale. In short, if the economic benefits of globalization and growth are unevenly shared, so also are the environmental burdens.

In the following three sections of the paper, we will consider in turn the three factors of the Ehrlich Equation: population (**P**); consumption patterns (**C**); and technology performance and eco-efficiency (**T**). We do not so much look at these three terms as interdependent factors determining overall pressure of humanity on natural systems, but consider them more particular as different domains of societal '**means**' (policies) and '**ends**' (goals or values).

In effect, we can consider C as a symbol standing for questions about justice in income distribution and ecological distribution, in other words intra- and inter-generational equity as a societal '**end**' at the heart of sustainability. In parallel, we consider population policy

and technological change as among the '**means**' or policy domains of governance action relative to these ends.

- Technological change as a policy field is a complex mix of competitive strategies and motivations, pride in creativity and excellence, collective (public) good, and risk appraisal and management.

- Migration as a policy field is partly a power problem (including the policing or contesting of frontiers of privilege). But it is also a diplomatic, international and cross-cultural problem of purposes and meanings.

These policy questions, addressing access and equity for different populations around the world and in the future, are partly questions of power and legal rights. They are also, in our new context of large scale environmental risks, partly questions of technology and of the unplanned impacts of technological interventions in natural processes (exemplified by industrial accidents, oil spills, problems of chemical toxin and radioactive waste disposal, and mad cow disease). We are now, with the case of climate change, confronted **on global scale** with the prospect of a new political/economic category of '**ecological refugees**'. Finally, they are questions of governance and ethics and attitudes, notably the will and capacity — or not — of different people, and peoples, to live together and to create for each other an inter-dependent well-being.

THE P-FACTOR: DEMOGRAPHIC DYNAMICS IN NORTH & SOUTH

Demographic growth undoubtedly is a contributing cause for growing environmental problems. This has been high on the international agenda since the first international conference on the environment at Stockholm in 1972, when Paul Ehrlich popularised the concept of a limited planetary carrying capacity (see The Population Bomb, Ehrlich 1971).

It is thus tempting to propose population governance as a policy field. Not only would this lead to improvements in per capita economic growth, but pollution levels would thereby be limited. In this way, the question of controlling the birth rate becomes a key theme for sustainability and the challenge of reconciling economic growth (per head) with protection of nature.

The facts are well known (cf., www.worldpopclock.com). The developing countries were characterised by an average rate of population growth of 2.3% per annum between 1960 and 1990, and now represent — with nearly 5 billion inhabitants — about 80% of the

world's population, whereas during the same period the number of inhabitants of the industrialised countries grew by only 0.8% per annum. For the future, with a forecast average growth of around 2%, the world population is likely to double from now till 2050. This demographic growth will thus mostly be manifest in the developing countries. Comparatively, if the doubling time is estimated in years, the present trends would indicate 175 years for Europe, 100 years for North America, 41 years for South Asia, 29 years in Latin America and 23 years in Africa. This means an accentuation of the asymmetries between developed and developing countries, which translates notably by the fact that more than half of the population in the Third World is under 20 years of age and, by the end of the 21st century (if present trends continue) the Third World will have 90% of the world's people.

About 95% of the population growth in the world currently takes place in non Western (non-industrialised) countries. The Third World share of world population in 1950 was about 68% in 1950, but has now (2005) reached about 80% and under current trends will reach about 87% in 2050. This implies a massive redistribution of world population: in 2050 India will become the most populous country (with about 1500 million inhabitants), followed by China (1400 million), followed at a distance by other countries including the United States (400 million) and Pakistan (350 million). Africa will have three times as many people as Europe, whereas the situation in 1950 was exactly the other way around (see Table below).

Population Levels by World Region (1950-2050)					
Region	**1950**	**1970**	**1995**	**2025**	**2050**
Africa	224	364	719	1350	1970
North America	166	226	297	390	460
Latin America	165	283	477	700	800
Asia	1402	2147	3438	4760	5320
Europe	549	656	728	720	660
Oceania	13	19	28	40	45
World	**2519**	**3697**	**5687**	**7940**	**9255**

Source: adapted from http://www.x-environnement.org/jr/JR07/2domenach.htm, referring to the World Data Sheet, Population reference Bureau, 2005. Figures for 2025 and 2050 are estimates.

Some Western countries, notably in Europe, have a striking trend towards the "ageing" of the population (with, notably, a rapidly increasing percentage of people beyond retirement age) and in a few cases there is even an associated risk of depopulation. For example Russia could pass from its 2000 population of about 145 millions, to a level of around 100 million if it maintains it current fertility level of 1.2 children per woman. Alternatively, if Russia and other European countries are to maintain the proportion of the population of "active age" (e.g., between 20 and 60 years), this may be through continued integration of immigrants. By contrast, the active population in African countries is much higher, being around 65-70% of total population.

While these facts and tendencies are clear, the consequences for sustainability strategy are not simple to deduce. Demographic dynamics are complex expressions of economic, societal and cultural factors.

For neo-Malthusians convinced by the thesis of over-population relative to the planet's carrying capacity, the only remedy is to stop population growth (indeed, for some, reduce world population). Others, such as E. Boserup (1970) and J. Simon (1981), population growth is nonetheless seen as a source and expression of human creativity, capable of managing environmental limits in a dynamic and adaptive way. What seems now clear is that (1) population as a source of 'pressures' on the environment is, as indicated by the Ehrlich Equation, mediated by technology and social organisation factors; and (2) the dynamics of technological and societal change are complex (cf., Le Bras 1994; Domenach 2006).

- For example, it is often commented that the high birth rates characteristic of Third World societies are contributing to "vicious circles" of economic and ecological poverty (e.g., access to drinking water), natural resource depletion (e.g., losses of soil productivity, deforestation) and environmental degradation. Nonetheless, children assure perpetuation of the family (or tribe) and birth control based on macro-economic and environmental performance criteria are not the paramount considerations. Notwithstanding poverty and high child mortality, children bring meaning and some economic benefits to the specific communities to which they belong — continuity of cultural and religious tradition, economic security and reinforcement of identity to families and extended family networks, prestige and increased capacity for the tribal group or community. The fact that these benefits come along with "external costs" (cumulative overpopulation at territorial and planetary levels) may well be understood by

those concerned, but is not the binding consideration for actions at family and tribal levels.

- Following the experience of the developed countries, it might be proposed that both the birth rate and the mortality rate (or, inversely, average life expectancy) tend to diminish as a function of economic development (measured, for example, by per capita GDP). However, following the experience of some developing countries, it might be proposed that mastery of demographic growth becomes possible through strategies that alter the status of women in their societies. In the latter case, mastering the demographic explosion is not so much an economic problem as a social and cultural challenge.

- Demographic growth is accompanied by growing urbanisation, measured by the fact that the urban component of population worldwide has passed from 22% in 1960 to 37% in 1990 (and continues to increase), a trend which is completely transforming the map of population density across the world. Individuals acting to assure or improve their own economic security (or that of their families, etc.), follow the work and income opportunities that seem to exist in the cities; these choices inevitably do not "internalise" the system effects of population concentration in growing urban centres; and it is a vicious circle.

For all these reasons (and others), policies such as birth control aiming at reducing or even halting population growth, and policies aimed at slowing or reversing urbanisation trends, even if they may appear as imperative from overall quality of life and macro-economic and environmental performance points of view — are not the factors entering most strongly into individual and collective decisions.

THE C-FACTOR: UNEQUAL ECOLOGICAL & ECONOMIC DISTRIBUTION

The Charter of the United Nations, in 1945, affirmed in its Article 55, the global objective "to promote higher standards of living". Increase in the level of this indicator has become almost the very definition of *economic development*, which — building on several roots of Western tradition — has its basis in a systematic exploitation of natural resources through science and technology in the form of industrial machinery.

This concern for standard of living works henceforth works as a conceptual reference point for concerns for equity and for *poverty* — the universal indicators will relate to levels of money income: *GDP per head*.

Yet the focus on money wage and salary levels as the essential index of well-being, of one's social place, prestige, standing (...) dates only from the industrial era and, even today, does not have universal currency. Theorists of well-being and poverty insist on more structured frames for analyses. Max-Neef (1991), for example, has developed the argument that there are nine fundamental categories of human needs and that inadequacy in relation to any one of these categories constitutes a poverty. These are: *subsistence, protection, affection, understanding, participation, idleness, creation, identity* and *freedom*. Many of Max-Neef's categories are relational in character. Questions of equity, justice and poverty cannot be analysed merely as attributes of individual income; rather they must be understood as properties of social groups.

Furthermore, even in a highly monetised economy, where (almost) everyone has some sort of a wage, the so-called "basic needs" of individual and collective well-being cannot be reduced to monetary dimensions alone. Most environmental resources and services, and dis-services, are not in the market and never will be. Therefore, in the context of sustainability, we must place a great emphasis on roles of the non-commodity environment as sources of human well-being.

Ecological distribution refers to the social, spatial, and inter-temporal patterns of access to the benefits obtainable from natural resources and from the environment as a life support system, and also exposure to the dangers and harms from adverse environmental conditions. The term itself is of relatively recent origin – being coined by Martinez-Alier during the 1980s, as far as we know – with analyses that typically extend and adapt traditional themes of political economy and welfare economics to contemporary preoccupations with the environment – and thus rejoin environmental themes with older themes of justice, land and labour.(1)

(1) Entrées to the contemporary literature are provided by, inter alia, Kapp (1983); Beckenbach (1989/1994); Martinez-Alier (1995); Martinez-Alier & O'Connor (1996); O'Connor (ed., 1996).

Inter-Generational equity according to J.S. Mill

"... No man made the land. It is the original inheritance of the whole species. When private property in land is not expedient, it is unjust. It is no hardship to any one to be excluded from what others have produced: they were not bound to produce it for his use, and he loses nothing by not sharing in what otherwise would not have existed at all. But it is some hardship to be born into the world and to find all nature's gifts previously engrossed, and no place left for the newcomer...."

— Principles of Political Economy
John Stuart Mill (1848)

The determinants of ecological distribution are in some respects natural (for example climate, topography, land quality, minerals, rainfall patterns), but are in other — very important — respects social, political, and technological. Ecological distribution issues must therefore be characterised, simultaneously, in terms of 'objective' physical realities and 'subjective' dimensions of societal choice (see inset box on ecological and inter-temporal justice in the 19th century writings of John Stuart Mill). Here we encounter the diverse considerations justice and justification: who decides what is desirable, for whom, by what criterion, according to whom?

A highly industrialised country with well-developed service industries, banks, insurances and so on, may appear to have a low per capita environmental impact because it imports its needed (depletable) primary materials and energy and has succeeded in exporting polluting production industries. A part of the pollution and ecological damage associated with the industrial world's economic dynamism is shifted 'offshore'. Thus, more generally, a nation may be the cause of environmental damage outside its own territorial borders, or it may bear damage due to actions outside its borders. The distinction between damage 'borne' on a nation's territory and the damage 'caused by' the nation's economic activity can be extremely important in setting policy targets.

- In terms of national welfare, the damages borne by the nation can seem a rational reference point. However, this can lead to policies deliberately aiming to off-load or export environmental pressures onto other countries (e.g., relocation of 'dirty' industries, dumping of toxic wastes offshore...).

- In terms of participation in an international community, the damages caused – viz., a nation's contribution to total environmental pressures – will be an

unavoidable reference point. This can be seen in such examples as negotiations over the distribution of burden for reductions in CFCs, greenhouse gas emissions, acid rain, etc.

Starting from this distinction between environmental costs caused and costs borne by a nation, a variety of indicators of environmental load displacement through trade have been developed in the literature (Muridian & O'Connor 2001). Cost-shifting can be across spatial or temporal boundaries (or both). The territorial asymmetries between SO_2 emissions and the burdens of acid rain, which reduce the quality or availability of environmental services, are a case of spatial ecological distribution. The intergenerational inequalities between the enjoyment of nuclear energy (or emissions of CO_2), and the burdens of radioactive waste (or global warming) are asymmetries of temporal ecological distribution.

- Looking across spatial boundaries, one has to consider direct environmental pressures (such as energy resource exploitation, forest cutting, fish catch, pollutant emissions and land use changes), and also 'indirect' or 'embodied' pressures that are linked with imports and exports of raw materials and goods.

- Looking across the temporal dimension, for example the limits to the 'sink' capacity of the planet for carbon dioxide emissions have become the object of international debate. It has been argued that the industrialised countries have "appropriated" the environmental services in a historically inequitable way, in this sense "taking" future as well as present-day sink capacity from their less developed neighbours, thus imposing costs unevenly on future generations (Azar & Holmberg 1995; Agarwal & Narain 1991).

If we go further and postulate liability for imposition of uncompensated costs, we may speak of an ecological debt, as for example the factory owner who, after he makes a good profit, is held liable to make some sort of recompense for the fact that effluent from the factory poisons the fish upon which a population downstream depends for its livelihood. Of course, notwithstanding the principle of 'polluter pays' (adopted by OECD countries for 30 years), the "debt" is often just theoretical; a compensation is not necessarily paid.

Cost shifting onto other parties can undoubtedly bring advantages to some, but can have perverse longer-term outcomes. Take for example the current debates on climate change and options for national and international strategies. According to the Stern Review (Stern 2006), it looks more and more plausible that climate change associated with a "business as usual" industrial strategy around the world will have substantial negative impact on

world economic output (as measured by such indicators as per capital and aggregate GDP and rates of growth) within the space of a few decades. More striking still are the foreseeable environmental and social consequences:

- Massive population displacements, perhaps 200 million persons as victims of drought or flooding, with dramatic consequences for inter-ethnic conflicts and social stress for the migrating populations and those in the territories hosting the refugees;

- Political conflicts within and between national territories due to water supply problems (scarcity, unpredictability) for perhaps 1/6 of humanity and to unreliability of agricultural harvests.

- Degradation of ecosystems under climate stress, rapid migration of flora and fauna responding to new climate conditions and gradients provoking disruptions to existing biodiversity, leading to perhaps a 40% loss in biodiversity (and, in some regions, aggravating climate change dynamics).

It has been noted that the underlying assumptions in the economic and climate modelling of the Stern Review are quite conservative (viz., there are no doomsday assumptions), and so it is quite easy to produce even more dramatic scenarios. The important point is that, at all scales, the consequences of climate volatility and precipitation and wind pattern changes will be very unevenly distributed, implying serious zones of social and economic stress (some productive sectors worse affected than others, livelihoods in some geographical areas being worse disrupted than others, poor people having less capacity for adaptive responses than richer individuals and nations, and so on). Existing geopolitical tensions including pressures on national borders between "rich" and "poor" nations are therefore likely to be exacerbated.

THE T-FACTOR: TECHNOLOGICAL CHANGE & SUSTAINABILITY

Much of the debate about the compatibility of sustainable development and competitiveness hinges on views about the extent to which technological change is thought to have the potential to reduce pollutant emissions and to improve the efficiency of natural resources and land and water use. In the two most widely debated conceptions of sustainable development, the role of technological change is determinant in improving the environment and more broadly in enabling a sustainable development course.

- The so-called "weak sustainability" approaches draw their inspiration from neoclassical capital theory extended to include natural capital. Whereas the models are fairly disparate in their details, the weak sustainability literature generally seeks a definition of conditions under which per capita consumption does not decrease. This preoccupation remains more or less in line with the results produced by Stiglitz's (1974) pioneering model. It is proposed that technological change/progress can, through market mechanisms, offer some relief from environmental constraints, through some combination of substitution (from natural capital towards human and produced capital) and uninterrupted increases in factor productivity. According to this vision, competitive forces will push the economy progressively towards the application of "backstop technologies" involving high marginal productivity of scarce natural capital (such as nuclear fusion or high tech solar energy or technological capture emissions, etc.).

- The so-called "strong sustainability" perspective as expressed, for instance, by Herman Daly emphasises a high degree of complementarity between technical (produced), human and natural capitals. The latter, natural capital, is viewed as heavily constrained (carrying capacity, rates of renewable resources, assimilation capacity by waste ecosystems), and hence a long-term sustainability requires the limiting of the volume of economic activity to what is compatible with these ecological constraints. This can lead to propositions for zero-growth of economic activity, based on the structures of complementarity, as alternatives to propositions for implementing policies for increased "eco-efficiency" through the dematerialisation of economic activity. This means reducing throughputs of the material and energy "services" of natural capital for a given level of economic goods and services production.

In both approaches, the view of technological change potentialities determines the vision of sustainability and how to attain it. Correspondingly, both schools propose that measures of technical change and production levels can be key indicators of success or lack of it in the implementation of environmental and, more broadly, sustainability policies.

However, this characterisation of technology is still incomplete. One lesson that may be drawn from many historical examples (CFCs, the nuclear sector, catalytic converters, etc.) is that the relationship between advances in science and science-based technologies on the one hand, and sustainable development on the other hand, is multifaceted and ambiguous. The recognition of ecological constraints on the scale and form of sustainable economic production and consumption means that "more output" is not the same as

"good input". Similarly, it has to be noted that more scientific knowledge applied to innovation does not necessarily lead to more environmental quality nor to a more sustainable economic process.

- ***Science-based innovation has, in the past, contributed to industrialization processes that have proven highly disruptive to ecosystems at local and global levels. Some of the new commercially attractive technologies may also be incompatible with ecological stability and environmental quality goals.***

- ***On a socio-economic plane, there are evident fears that some forms of commercially driven innovation and technology transfer can work to heighten socio-economic stratification, and perhaps even worsen poverty for disadvantaged populations rather than reduce it.***

- ***Some new forms of knowledge give a significant potential for 'mass terrorism', through allying a few well-focused perturbations (notably chemical, biological and informational) to techniques of mass electronic communication and rapid mobility.***

Paradoxically, a strong trust or belief in the capacity of science and technology to produce desired results, can lead – and in fact often has led – to reliance on ever more vulnerable systems, and to a dramatic underestimation of what have been called 'virtual' or 'hypothetical risks', that is, the typical risks of modernity which are characterised by complex causation networks, time lags and severity of impacts which is prohibitive to any kind of laboratory testing (a nuclear melt down, the deliberate release of an invasive plant...). These 'virtual' risks are unproven until they materialise, but at that point they cannot be managed (or only at very great costs). Moreover, the perceived uneven, unfair, and unnegotiated imposition of disadvantages, damages and burdens (including future clean-up costs or enduring health problems, etc.) is, for many people, unaccepted and unforgiven – and hence explosive on social, political and diplomatic levels.

Analyses and appraisals of technological change as a factor for sustainability must incorporate the multidimensional nature of technological change, which, in qualitatively different ways, bears on (inter alia) prospects for economic production, natural resource availability, waste production, mitigation or argumentation of the adverse environmental impacts of pollution, species viability, ecosystem conservation and biosphere life support functions. In addition, if the "rate of technical change" (relative to specified performance criteria) is considered as a variable in modelling or multi-criteria appraisals, this needs to

be complemented by attention to the institutional, political or other determinants of the changes that do or might take place. Abstract parametric formulations do not do much for the understanding of the roles of stakeholders (firms, citizens, governments, etc.) in the dynamics of technological change.

POLICY DILEMMAS, SOCIAL CHOICE & DELIBERATION (THE GOVERNANCE FACTOR)

Social choice is about the principled distribution of bads and risks, as well as of monetary income and wealth, market entitlements and economic goods. In the above sections we have 'broken up' the facets of the Ehrlich Equation, not just as interdependent factors determining overall pressure of humanity on natural systems, but also in terms of societal 'means' and 'ends'. In effect, we are considering justice in income distribution and ecological distribution as a societal 'end', and we are considering population policy (including migration aspects) and technological change as among the 'means' or domains of governance action relative to these ends.

- Technological change as a policy field it a complex mix of competitive strategies and motivations, pride in creativity and excellence, collective (public) good, and risk appraisal and management.

- Migration as a policy field is partly a power problem (including the policing or contesting of frontiers of privilege). But it is also a diplomatic, international and cross-cultural problem of purposes and meanings.

What is the societal basis for policy choices in these domains? Sustainability is about commitment to justice and coexistence in various forms of extended community. The Brundtland Report formulation of sustainable development seeks to reconcile present day needs with the requirements of future generations (WCED 1987). Other definitions put to the fore the maintenance of biosphere life support systems, species diversity, economic justice between North and South nations, political self-determination and tolerance of diversity in cultural and political conventions. The articulation of sustainability as a problem of social choice – the problem of sustaining of what, why, for whom? – thus highlights a tension between two forms of discourse and action (see O'Connor 1999, 2002):

- On the one hand, self-centred attitudes associated typically with discourses of control or of domination, which seek to pursue or to impose one's own set of

purposes with the exclusion or discounting of any contradictory claims of what is good or valuable, to be respected or merits to be done;

- On the other hand, more generous attitudes that propose to search out possibilities of coexistence based on tolerance of and respect for a plurality of antagonistic or seemingly contradictory considerations.

A domination ethic tends to consider the outside world, including other people, as a potentially hostile domain to be kept under surveillance with the frontiers controlled. It is alternatively a means to an end (e.g., gains from trade) or a source of danger and obstacles to achieving one's purposes.

A coexistence ethic, by comparison, proposes courtesy and dialogue, diplomacy before declaration of war. Discourses in favour of coexistence can, sometimes, appear as naïve, with an unrealistic pleading of 'equal rights' for everything and everybody. It is clear that a precept of coexistence is an open question. At all levels of society, some antagonisms are inevitable. Dilemmas arise from the tensions between parochial goals and self interest, and the desire (of some) to find forms of life where each party potentially in antagonism leaves a space for the others (notwithstanding the differences).

These remarks therefore do not solve the question of what to do concerning migration pressures and population, whether viewed from "within" or from "without". They are intended to highlight the character of the dilemmas being faced, and to suggest some of the terms in which they can be addressed.

Processes of "inclusive governance" including deliberative procedures (of which parliamentary democracy is one form, but not the only one) seek to permit those involved – the elected representatives, the negotiating parties, the stakeholders in sustainability – to maintain a permanent 'dialogue' or 'argumentation' between non-reconciled principles or positions. An economic analyst or social scientist in such circumstances does not have a simple job of describing facts or providing an algorithm of rational choice! Rather, they need to be like a 'midwife of problems' (Rittel 1982, pp.35-48), helping to raise into visibility, 'questions and issues towards which you can assume different positions, and with the evidence gathered and arguments built for and against these different positions'.

This view of a dignified collective 'working out' of impossible social choice problems is what underpins much of the current focus on multi-stakeholder deliberation as a political cornerstone for the pursuit of sustainability. The argument is that decision quality may be

enhanced through integrating wide stakeholder considerations together with scientific, technical and economic expertises within a permanent communication process.([2])

Within European policy support and governance institutions, for example, it is more and more affirmed that including the divergent interests of the various stakeholders in a sort of multi-stakeholder and multidisciplinary dialogue, can provide a more robust basis to help in the evaluation of risks and conflict management in the long term.([3])

Each stakeholder group may express different criteria of adequacy or quality in relation to each of the 'governance issues'. Tensions, conflicts of interests, uncertainties and dissent (amongst scientists as well as decision makers, administrators and stakeholders from different walks of commercial activity and civil society) can be explored by comparison of the judgements made about the good and less good features of each solution concept or implementation strategy. In effect, the scenario set becomes the platform for a multi-stakeholder deliberation about the social meanings as well as the scientific/technical quality associated with the different decision options and policy choices.

In this way, decision makers are acknowledging that the choice and achievement of the objectives of sustainable development policy, are strongly dependent on the ways in which the various stakeholders are associated with the preparation and the implementation of policies.

SUMMING UP

The Ehrlich Equation, although excessively simplistic, draws attention to increasing charge (pressure on the environment) relative to carrying capacity. Since the 1970s, a great variety of models have been constructed in which there exists the technological capability for unlimited growth in the value of economic capital over time while reducing per-unit environmental impact (e.g., substituting away from non-renewable natural capital, increas-

([2]) For some recent developments around themes of multi stakeholder deliberation for sustainability, see Dryzek (1994); Holland (1997); Jacobs (1997); Sagoff (1998); Bailly (1998); De Marchi & Ravetz (1999); De Marchi, Funtowicz & Pereira (2001); Le Dars (2001); van den Hove (2000, 2001).

([3]) In the same way, European institutions understand that scientific practice is not fundamentally "value free" but that it has to find its justification by reference to prevailing social concerns. The object of the scientific endeavour in this new context may well be to enhance the process of the social resolution of the problem, including the participation and mutual learning among stakeholders, rather than a definitive "solution" or technological implementation. This is an important change in the relationship between problem identification and the prospects of science-based solutions, which has clearly been formulated as a "new social contract by science" by Jane Lubchenco (1998) in her presidential address to the AAAS on 15 February 1997.

ing eco-efficiency in resource use and reduction of pollution emissions). Achievement – or not – of consumption sustainability is, within the limits of what nature and technology can permit, a societal choice.

Achieving sustainability would depend, one way or another, on environmental and economic resource management choices made on behalf of future generations, investments whose payoff is diffusely distributed into the future. Quantification of prospects and risks is highly speculative, but even if sustainability is globally feasible (which has not yet been, and perhaps cannot in advance be proven), the components of it would be very unevenly distributed. In the meantime, environmental as well as economic poverty is likely to lead to increasingly sharp migration pressures. The focus here is not only on the distribution of economic income and wealth but also the distribution of ecological services and nuisance – that is, the production of dangers, damages and of 'risks' (prospects of future penury, stresses, difficulties and damages) that may fall on others elsewhere or in future generation.

The idea of policies for poverty relief, population control and immigration based on principles of respectful coexistence may seem rather utopian — indeed naïve — in the current climate of geopolitical tensions about access to resources, power to pollute, wealth and poverty, right and wrong. The search for justice and for compromise solutions depends not only on economic insights and expertise but more especially on mobilising human capacities including trust, generosity, compassion and empathy. Respect of differences means willingness to accept limits, to accept vulnerability, and to make compromises based on the hope of benefits coming from coexistence. Whether or not, in the face of very different attitudes and convictions, lack of interest, and the myriad fears (including, but not limited to concerns about radioactivity) that populate the landscapes of everyday life, our societies can develop and maintain this willingness, remains to be seen.

There will evidently be many situations where people, or different cultures, or different species of plants and animals, simply cannot, or do not want to, find a basis for durable coexistence. Reflective deliberation as advocated here, may work to highlight appreciation of tensions, but it does not necessarily find a way to put an end to them. In this regard, as Serge Latouche (1989, p.139) once suggested, the conviction in the merits of a philosophy of coexistence can arise almost paradoxically, because the other options are clearly worse:

'...as there is no hope of founding anything durable on the short-change of a pseudo-universality imposed by violence and perpetuated by the negation of the other party, the venture is warranted that there is indeed a common space of fraternal coexistence yet to discover and construct.'

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Migrations, pauvreté et développement durable

L'objectif de l'exposé est de partager avec le grand public la vision d'ENDA et ses angles d'analyse sur la question migratoire, en articulation avec la pauvreté et les concepts en vogue sur le co-développement et le développement durable.

Aussi, d'entrée de jeu, l'exposé expliquera en quoi la vision et la mission de l'organisation internationale ENDA tiers monde prennent en compte implicitement les migrations internationales. Ensuite, l'exposé analysera les discours dominants sur la migration et le développement. Ce chapitre servira de transition vers un questionnement du développement en rapport avec les fondements des migrations internationales.

VISION ET MISSION D'ENDA: UNE PRISE EN COMPTE IMPLICITE DES MIGRATIONS INTERNATIONALES

La vision d'ENDA

«*Un monde solidaire* et en paix, respectueux des droits et de la dignité humaine, de la justice sociale et de la diversité culturelle, *où les différentes ressources sont réparties équitablement* et gérées dans l'intérêt des générations actuelles et futures»

Commentaire

Cette vision du monde a inspiré les initiatives et les discours d'ENDA depuis sa création dans les années 70. ENDA a été créé au Sénégal, en Afrique de l'Ouest, au moment où le continent africain subissait une période douloureuse de sécheresse dans les pays du Sahel et dans les contrées de la Corne de l'Afrique. Les déplacements de populations provoquées par cette crise environnementale et économique, ont forcé la réflexion sur la gestion communautaire et politique des ressources naturelles, sur nos systèmes de production et nos systèmes socio-économiques.

Les évolutions sociales et économiques et les modes d'exclusion qui les accompagnent, ont par la suite démontré que **les ressources ne sont pas réparties équitablement,** ni à l'échelle internationale, ni à l'échelle des pays et des communautés. Ceci est l'une des causes des migrations transnationales et des migrations Sud-Nord.

La vision d'un monde solidaire induit, à priori, un monde où la dignité de chacun est respectée et la liberté de circulation de tous est un droit acquis.

Les missions d'ENDA

« ENDA travaille à la construction de sociétés où chacun-e peut participer, en pleine responsabilité, à la régulation collective. Dans cette optique, ENDA œuvre en faveur du développement et *combat les différentes formes d'exclusion et de pauvreté ainsi que les mécanismes qui les génèrent.*

ENDA promeut *l'autonomie, le renforcement et le protagonisme des communautés et mouvements sociaux*; elle favorise leur participation significative et qualifiée aux processus socio-économiques ainsi qu'à la détermination des politiques publiques.

ENDA œuvre au respect des droits humains, du pluralisme, de *la diversité culturelle* et de l'équité entre les genres et entre les générations.

ENDA se mobilise en faveur du décloisonnement et de l'articulation des savoirs et des actions à l'échelle locale, régionale et globale.

Par la formation, la recherche-action, le plaidoyer et la construction d'alliances stratégiques, ENDA contribue à la formulation de politiques publiques allant dans le sens d'un développement durable et à l'avènement d'une culture de paix et de non-violence. »

Commentaires en rapport avec les migrations

- L'expression « les différentes formes d'exclusion » peut être comprise comme incluant l'empêchement de migrer, mais aussi la migration comme seule alternative de survie;

- Les groupes de diasporas sont à considérer comme faisant partie des « communautés et mouvements sociaux »;

- La « diversité culturelle » naît du brassage des populations, donc des migrations à toutes les échelles géographiques.

LES MIGRATIONS INTERNATIONALES SOUS LES FEUX DE LA RAMPE

La conscience de l'ampleur du phénomène migratoire à l'échelle internationale a considérablement augmenté ces dernières années, sans doute davantage que le phénomène lui-même.

Grace à un certain nombre d'études et d'observations, faites notamment par les Nations Unies, on peut noter que :

- Il existe 191 millions de personnes considérées comme « migrants » (ayant quitté leur pays d'origine) dans le monde en 2005, contre 176 millions en 2000[1]. Les migrants représentent 3% de la population mondiale.

- Les femmes représentaient 49.6 % des migrants en 2005, proportion qui change la nature des flux et leur impact tant au Nord qu'au Sud.

- Les Etats-Unis sont de très loin le pays accueillant le plus de migrants, la France se situe à la 5ème place du classement des pays d'accueil[2].

- L'Afrique est la 1ère région d'origine des étrangers installés en Union Européenne, qui en dehors de l'Afrique, est la 1ère destination des migrants ouest-africains[3].

- La diversité des pays d'origine des migrants a beaucoup augmenté.

(1) Source: United Nations' Trends in Total Migrant Stock: The 2005 Revision, http://esa.un.org/migration.
(2) Source: United Nations, Trends in Migrant Stock: The 2003 Revision.
(3) Source : Nelly Robin, chargée de recherche, IRD, Sénégal, 2006.

- L'augmentation des flux migratoires depuis les années 1950 concerne surtout les flux Sud-Nord[4].

En outre, *les projections estiment que les flux Sud-Nord vont aller en augmentant*, en particulier depuis l'Afrique qui connaît une forte croissance démographique (100 millions d'habitants dans les années 1960, 600 millions aujourd'hui, probablement 1 milliard dans 20 ans[5]) en décalage avec sa croissance économique insuffisante. La nature de la croissance économique des pays africains n'est pas porteuse d'un développement durable, car elle ne provient pas d'un secteur productif générateur d'emplois, elle n'entraîne pas suffisamment d'investissements dans les secteurs sociaux et n'engendre pas des formes de richesses partagées et durables. D'où une forte dépendance des pays en développement vis-à-vis de l'aide. Malheureusement, celle-ci n'a pas propulsé une croissance durable et équitable chez les pays récipiendaires.

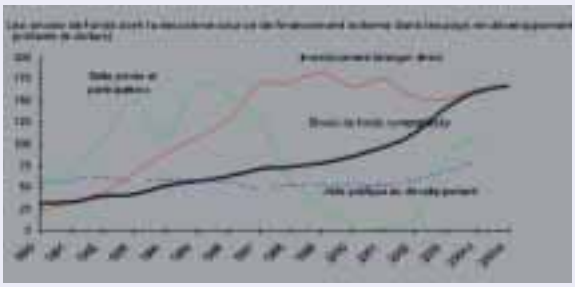

Figure 1. Water balance contrasts in terms of annual precipitation, potential (white) and actual evaporation (full) and runoff generation.

Source : Mansour Tall – ONU-Habitat

Un diagramme présenté par Mansour Tall (ONU-Habitat), montre clairement l'évolution des différentes sources de financements externes dans les pays en développement : Il ressort que les envois de fonds privés comptabilisés, sont la deuxième source de financement externe après les investissements étrangers directs. La Dette privée et l'Aide publique au développement viennent en 3ème et 4ème position.

(4) Hein DE HAAS, http://www.imi.ox.ac.uk/pdfs/wp2-development-instead-of-migration-policies.pdf.

(5) Nations Unies, *World Population Prospects*, cité par le Sénat français, 2007, *Rapport d'Information n°417 sur le co-développement et les relations entre politique de développement et de gestion des flux migratoires*, 65 pages.

LES DISCOURS DOMINANTS SUR LA MIGRATION ET LE DÉVELOPPEMENT: DÉRIVES ET EFFETS PERVERS

Une approche dramatisante et exclusive des migrations comme un phénomène sud-nord

Si l'Afrique est la première région d'origine des étrangers installés en Union européenne, les migrations africaines qui se font à l'intérieur du continent, dans la même sous-région ou d'une sous-région vers une autre sous-région, sont de loin beaucoup plus importantes que les migrations africaines à destination des pays du Nord.

Même si les « sans papiers » et les passagers des bateaux de la mort, en quête d'une terre d'accueil, sont plus visibles et suscitent l'attention internationale, les migrants éthiopiens, somaliens, burkinabé, tchadiens, sénégalais, congolais et nigérians, qui vont chercher du travail dans d'autres pays africains et dans les pays du Golfe, sont de loin, les plus nombreux.

Nous pensons que la crise économique et sociale dans certains pays industrialisés du Nord, est une traduction des failles du capitalisme qui entretient l'élitisme ainsi que l'accumulation et la protection absolue des richesses, le refus de partager, et de ce fait provoque le syndrome de « l'envahisseur étranger » qui devient le bouc émissaire des déséquilibres sociaux ambiants.

Ainsi, les pays d'accueil engagent-ils des interventions d'envergure, souvent maladroites et contestables sur le plan moral, en vue de renforcer la protection de leurs frontières (pour ne pas dire de leurs richesses...) et le contrôle des mouvements des étrangers, tandis que les mêmes pays et leurs gouvernements sont moins agressifs à propos des trafics Sud-Nord qui se font clandestinement sur des milliers de filles et de femmes à des fins bassement immorales et économiques.

La vague de migrations-suicides auxquels nous assistons aujourd'hui peut être interprétée comme une conséquence directe des politiques d'enfermement des pays du Nord. C'est pourquoi, nous refusons donc la stigmatisation des migrants traités comme des criminels alors que les migrations actuelles traduisent, comme pour toutes les migrations antérieures, la recherche d'une vie meilleure. A cet égard, il nous semble que la logique sécuritaire utilisée par les pays du Nord est sans issue.

Sur les diasporas qualifiées et la mobilisation des compétences et de l'épargne des migrants

Des signaux d'alarme ont été émis pour attirer l'attention sur la fuite des cerveaux et son impact critique sur les secteurs de l'éducation et de la santé dans les pays du Sud. L'exemple des médecins ghanéens ou béninois, plus nombreux au Royaume Uni que dans les pays d'origine où leur absence dans un contexte sanitaire difficile conduit à une surmortalité, a fait le tour des conférences internationales.

De plus en plus, les migrations sont perçues comme des opportunités porteuses d'un potentiel de développement qui s'offrent aux pays africains. Trois axes prioritaires sont généralement cités comme stratégies d'exploitation du potentiel des migrants :

De plus en plus, les migrations sont perçues comme des opportunités ou porteuses d'un potentiel de développement qui s'offrent aux pays africains. Trois axes prioritaires sont généralement cités comme stratégies d'exploitation du potentiel des migrants :

- Consolider le rôle des migrants comme « agents du développement »
- Transformer l'expatriation des cerveaux en un avantage pour les pays d'origine
- Mieux utiliser les transferts financiers de la diaspora

Certes, parce qu'elle est pourvoyeuse de devises, la migration internationale contribue très largement à l'amélioration des conditions de vie et à la survie des familles des migrants en particulier dans les bassins d'émigration située dans les régions enclavées des pays du Sahel. Le même phénomène de transfert de devises s'observe dans une proportion plus large dans les pays de la Corne de l'Afrique, notamment l'Ethiopie, le Soudan et la Somalie et dans certains pays d'Afrique centrale.

L'ampleur des transferts de fonds a été découverte ces dernières années et portée à la connaissance des acteurs du développement par un rapport de la Banque Mondiale de 2003. Une grande partie de ces transferts reste méconnue car elle se fait en dehors des circuits bancaires classiques. On reproche à ces fonds d'avoir un caractère informel et d'être surtout utilisés pour la consommation des ménages et non pour des investissements productifs.

Des tentatives de capter et d'orienter ces fonds sont en cours chez plusieurs familles d'acteurs et notamment les banques commerciales, qui développent des services commerciaux pour s'adapter aux caractéristiques de cette nouvelle clientèle transnationale.

Toutefois, la Banque Mondiale elle-même a fini par reconnaître, et rappeler à tous, le caractère privé de ces transferts. Par ailleurs, ces flux ne devraient pas être considérés comme un substitut de l'aide au développement – mais à la limite, comme un complément.

La Tunisie est l'un des pays, qui a su très tôt mettre en œuvre une politique publique de promotion, de rapatriement et d'utilisation de l'épargne de ses migrants internationaux en faveur d'un développement industriel endogène, générateur d'emplois et créateurs de produits de première consommation.

A ENDA, nous pensons qu'il convient de *respecter la liberté des diasporas de ne PAS contribuer au développement des pays du Sud***.** Contribuer au développement de son pays ne doit pas être une obligation morale, mais plutôt un choix de solidarité à l'instar des citoyens du Nord qui choisissent de se mobiliser pour soutenir des populations des pays du Sud ou de leurs propres pays. Vouloir faire à tout prix des migrants, des « acteurs de développement » est tout aussi idéaliste que de vouloir faire de tous les citoyens du Nord des « citoyens solidaires des pays du Sud», ou de vouloir faire de chaque coopérant étranger, un acteur de développement dans le pays de travail.

Sur le lien entre migration et développement

Si le lien de cause à effet entre pauvreté et émigration est reconnu, en revanche il n'est pas évident que réduire la pauvreté permette de réduire l'émigration internationale, car cette dernière, qu'elle soit légale ou pas, est une initiative coûteuse, et ceux qui décident de partir ne sont pas ceux qui manquent de toit et de nourriture chez eux.

Le lien entre migration et développement génère depuis quelques années de grands espoirs. La communauté du développement est à la recherche de solutions dont les pays d'émigration, d'immigration et les migrants eux-mêmes sont tous supposés ressortir gagnants, afin de maximiser les bénéfices de la migration sur le développement.

Cependant, le débat sur l'apport positif ou négatif de la migration sur le niveau de développement des pays du Sud est loin d'être tranché.

L'introduction de la thématique « migration » dans les plans de développement, en l'occurrence dans les Stratégies de Réduction de la Pauvreté, est elle réaliste et même souhaitable ?

L'argument de mettre en cohérence les politiques de développement avec les politiques migratoires à des relents de conditionnalité, avec l'ultime objectif de déboucher sur une gestion restrictive des migrations

Sur le même registre, nous nous interrogeons sur les appels à une meilleure gouvernance internationale des migrations. Pour certains gouvernements, ces appels se fondent sur l'argument que si les flux commerciaux sont régulés, de même que les flux financiers, pourquoi ne devrait-on pas réguler les flux de personnes. On s'approche alors dangereusement de la réduction des personnes au statut d'objets marchands dont les mouvements seraient planifiés, décidés et gérés par ceux qui les gouvernent. Ceci nous rappelle douloureusement les schémas des échanges commerciaux internationaux au 18ème et au 19ème siècle.

REPENSER LE SENS DU DÉVELOPPEMENT DANS LE CONTEXTE DES MIGRATIONS INTERNATIONALES

Un préalable : réaffirmer que la liberté de circulation est un droit pour tous les êtres humains

En réaction aux traitements violents et aux mesures répressives sans précédent qui sont prises à l'encontre des migrants internationaux par les pays de destination, ENDA veut réaffirmer que la liberté de circuler et le droit à la migration sont un droit pour tous les êtres humains. Les peuples ont toujours rejeté, à leur façon, toute restriction à leurs libertés. De tous temps, ils ont développé des alternatives pour contourner les barrières imposées à l'expression de leurs libres choix. Les africains ne font pas l'exception à cette quête de liberté. C'est pourquoi la migration pour rechercher de meilleures conditions de vie a toujours été pratiquée par tous les peuples de toutes catégories et de toutes races. Pourquoi est-elle considérée aujourd'hui comme un acte positif lorsqu'il s'agit des élites qui décident de changer de pays et d'emplois, tandis que pour les pauvres, le même acte devient un acte criminel donc coupable ?

Il y'a moins de 400 ans, les européens n'ont-ils pas massivement migré vers les Etats-Unis, l'Australie, l'Amérique latine et l'Afrique australe ?

Les anciens pays colonisateurs ayant conservé des liens historiques, politiques et sociaux très forts avec leurs anciennes colonies, comme par exemple la France et le Sénégal, ne devraient pas s'offusquer des flux migratoires importants qui en découlent aujourd'hui. Enfin, est-il nécessaire de rappeler que les migrations sont « une conséquence presque inévitable de l'insertion des nations dans l'économie mondialisée »([6]).

Le développement ne doit pas être considéré comme un moyen de « fixer » les populations dans leurs terroirs.

Les gouvernements européens affirment de plus en plus le rôle de l'aide au développement comme un moyen de lutte contre « les causes profondes » des migrations internationales grâce à l'amélioration des conditions de vie des populations.([7]).

Il est utopique de croire qu'un jeune africain, membre d'une communauté rurale ou urbaine dotée de tous les services sociaux et des infrastructures de base et qui est auto-suffisante, serait privé de toute envie de voyager ou de migrer. Ce serait nier son autonomie, ses aspirations personnelles et ses choix de vie. Comme l'a bien souligné hier, M. Barroso, Président de la Commission de l'Union Européenne, le développement durable (je dirais, le développement tout court) ne doit pas avoir un contenu purement matériel. « Le développement durable, a-t-il dit, renvoie à des *questions existentielles*. »

Les questions existentielles, d'ordre moral, s'appliquent également aux populations des pays en développement. Ces quêtes existentielles dépassent la simple satisfaction des besoins matériels de base tels que l'eau, la nourriture, l'habitat et la santé, même si ces paramètres sont très importants en matière de développement.

Les questions existentielles auxquelles sont confrontées les populations du Sud, notamment les jeunes ruraux et urbains qui décident de migrer, proviennent du fait qu'ils ne s'identifient pas au projet de société que leur imposent leurs dirigeants, promoteurs d'une civilisation dite « moderne » dont les principes s'accommodent avec la corruption, la violence, les crimes économiques et la dictature. Une civilisation qui est engendrée par le capitalisme international pour lequel le gain économique et l'accès à la notoriété justifient tous les moyens.

([6]) MASSEY Douglas, 2000, *To Study Migration Today, Look to a Parallel Era. Chronicle of Higher Education* 46 (50).p.B5.

([7]) Extrait de l'audition de M. Jean-Michel SEVERINO, directeur général de l'AFD devant le Sénat, 7 février 2007, cité dans : Sénat français, 2007, *Rapport d'Information n°417 sur le co-développement et les relations entre politique de développement et de gestion des flux migratoires*, 65 pages.

Alors, ces jeunes, lettrés ou non, s'interrogent en permanence sur leur avenir, sur leur utilité et sur leur identité. Face à ces questionnements légitimes, le monde leur renvoie des concepts étrangers et rébarbatifs tels que « la croissance », « la sécurité des frontières », « la lutte contre la pauvreté », « le co-développement », « les Objectifs du Millénaire pour le développement », etc. etc.

Vouloir ôter à un être humain son droit à la libre circulation, c'est aussi ne pas lui reconnaitre le droit de ne pas migrer. Le développement local doit offrir aux populations qui le désirent, le droit de pouvoir vivre de leurs terres et des autres ressources de leur environnement de manière durable.

Le co-développement - ambiguïtés autour d'un concept

S'agissant du co-développement, il a été officiellement défini en 2003 par la coopération française comme *« l'association des migrants aux projets de coopération pour le développement »*([8]).

Depuis lors, on assiste cependant à une dérive politicienne de l'utilisation du terme, qui est associé à une utilisation accrue de l'aide au développement dans le but de freiner les flux migratoires. Le co-développement rencontre actuellement un écho important, compte tenu de l'échec des politiques répressives et sécuritaires de lutte contre l'immigration qui n'ont fait qu'induire l'immigration illégale sans agir sur « les causes profondes » des migrations internationales.

Des ONG européennes ont récemment rappelé leur définition du co-développement en y incluant un bénéfice aussi pour les sociétés du Nord : le co-développement serait donc *« un ensemble de pratiques bénéficiant aux sociétés du Sud et du Nord, en plaçant les migrants au centre des projets menés »*([9]).

Si le co-développement est la réalisation conjointe de micro-projets, il est loin d'être une réponse au phénomène migratoire et encore moins un facteur du développement durable pour une région ou un pays.

([8]) Discours de B. Girardin, Ministre Déléguée à la Coopération, au Développement et à la Francophonie dans le cadre du Conseil Affaires Générales de l'UE consacré au développement, 16 octobre 2006.

([9]) *Migrations et co-développement : quels positionnements pour les ONG européennes ?* Actes des rencontres des 24 et 25 avril 2007, Paris, 45 pages.

Lorsqu'on parle de rapport gagnant-gagnant dans les relations de coopération, il faudrait inscrire la coopération bilatérale dans une perspective régionales et/o globale. Il faut inscrire le concept « gagnant-gagnant » dans un contexte international dans lequel s'exercent l'équité et la solidarité.

L'échec des négociations commerciales internationales dans le cadre de l'OMC nous renvoie au fait que les dirigeants des pays les plus riches parlent de solidarité et d'équité mais agissent dans le sens contraire parce qu'ils sont assujettis au système économique international dont le principe actif est de produire du profit pour les multinationales. La coopération solidaire ne peut donc pas s'exercer dans un tel contexte à moins de se forcer à réguler et à moraliser le capitalisme international.

L'Europe serait-elle disposée à se lancer dans cette bataille ? Si oui, les peuples africains, en s'appuyant sur les valeurs humanistes dont l'Afrique est le berceau, pourraient être l'alliée de l'Europe pour une telle bataille.

ENDA Tiers Monde œuvre inlassablement pour redonner de la dignité et de la citoyenneté aux pauvres et aux exclus du système. Nous prônons le dialogue politique et stratégique entre les acteurs de la société civile et les représentants des services publics à l'occasion de toute action de développement, qu'il s'agisse de la construction d'un puits, d'une école, d'une autoroute, ou de la promotion de plantes médicinales.

Ces dialogues doivent engendrer des dynamiques de gestion politique, sociale et économique dans lesquelles chacun sort gagnant sur le plan civique, moral et matériel.

Pour revenir aux migrations, les déséquilibres dans les relations commerciales internationales sont un facteur d'appauvrissement qui engendre l'émigration des perdants du système. Mais est-ce un mal de chercher à échapper aux conséquences d'un système inégal?

CONCLUSION: LA MIGRATION N'EST PAS UNE STRATÉGIE DE DÉVELOPPEMENT DURABLE

Nous sommes d'accord avec les affirmations du Forum Social Mondial sur la Migration et le Développement, tenu à Bruxelles en juillet 2007, qui stipule que le développement doit viser « à créer un environnement qui permette à la migration internationale de se produire par choix plutôt que par nécessité ».

Le terme « choix » me semble être le concept-clé lorsqu'on veut parler de « développement » tout court.

Le développement durable des pays du Nord ne s'est pas construit avec des microprojets ni avec des projets de développement. Après la deuxième guerre mondiale, en même temps que des investissements publics et privés promoteurs d'emplois et d'infrastructures économiques et sociales, les pays du Nord ont subi des transformations sociales qui ont contribué à forger une citoyenneté responsable, corollaire de la mise en place de systèmes à caractère démocratique au sein des collectivités, des unités de production grâce aux syndicats et au sein des services publics (même si aujourd'hui ces systèmes connaissent une certaine dérive...).

C'est le poids social et économique des organisations de la société civile qui impose la participation citoyenne aux choix de développement et leur confère un pouvoir de négociation et de contrôle sur la classe dirigeante.

L'émergence de ce poids social et économique passe par la sécurisation des ressources de vie de la population active, l'industrialisation et l'accès à la formation par une large proportion de la population.

Le poids social et économique des acteurs de base devient un poids politique lorsque les populations s'organisent librement en communautés de producteurs et en mouvements sociaux reconnus et respectés et qui s'expriment sur la gestion de la chose publique et participent à la définition du futur de leur société et de leur pays.

Le monde unipolaire dans lequel nous vivons aujourd'hui, impose dans tous les pays, le matérialisme, l'enrichissement rapide par des spéculations et des trafics en tout genre et la recherche du luxe comme objectifs de vie, tandis qu'il tue progressivement la conscience humaine.

Nous pensons que les systèmes et les modalités dans lesquels s'opèrent l'Aide au développement ainsi que les micro interventions ont perturbé la capacité de formulation et d'expression des aspirations des populations pour un développement égalitaire à l'échelle de leurs communautés et de leurs nations.

L'Aide internationale a longtemps réduit le développement à une série d'investissements matériels dont les bénéfices économiques et sociaux sont éphémères parce qu'ils ne s'inscrivent pas dans un projet de société définie par les « bénéficiaires » de l'aide. Dans de

telles conditions, devons-nous être surpris et offusqués de voir des milliers de jeunes africains prendre le large parce que c'est la seule voie d'expression de leur liberté d'exister?

Tout comme les jeunes des banlieues parisiennes, les migrants des pirogues de la mort expriment ainsi leurs quêtes existentielles, en agressant avec violence le système dominant et dominateur, au péril de leur vie.

Nous pleurons ceux qui meurent dans cette aventure, et nous rendons hommage à leur intrépidité et à leur quête de solidarité, de liberté et d'un nouvel ordre politique et économique. Puissions-nous ne pas rester à jamais insensibles à une interpellation aussi forte!

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Demography, Poverty, Migration and Sustainable Development Challenges

This contribution deals with the subject of migration and the link between migration and development policy. I concentrate on questions related to Africa because, as Director in the European Commission's Directorate General for Development with responsibility for Pan-African issues, this is my main professional focus.

THE CONCEPT OF MIGRATION

I would like to start by devoting a few sentences to the background under which European development policy looks at the issue of migration. We have to be clear that when we talk about migration, we do not only discuss the tragic situation of boat people who try getting into Europe. This is a very visible but very small part of the migration question. First and foremost, migration is essentially an issue between rural areas and cities within individual African countries. Secondly, migration is a big issue between African countries. It should be noted that, in contrast with the European Union, there is no regulated system of free movement of persons between countries in Africa. Intra-African migration and mobility is very much a traditional phenomenon, which is part and parcel of Africa's history. Most of it is uncontrolled and 'semi-legal'. Much of it is certainly not chosen, but

is driven by the factors such as poverty, war, environmental disaster. Thirdly, there is the migration to Europe. This has two dimensions: (a) legal and well-managed migration; and (b) spontaneous, and often dangerous illegal migration. The latter cannot benefit from support by official bodies, it does not lead to regular jobs in Europe, it complicates the regular transfer of money back to the families in Africa. In other words, this type of migration is far less sustainable, not for the people concerned, not for Europe, not for Africa. It is therefore important for all to get it under control, and to turn, where possible and required, illegal migration flows into legal flows. Europe is not creating a fortress, Europe is not closing its borders, but Europe tries to better manage its migration, for the benefit of all.

THE RECENT INCLUSION OF MIGRATION CONSIDERATIONS IN THE EU'S DEVELOPMENT POLICY

For the European Union's development policy, migration is a relatively new issue. This is not because migration is new. On the contrary, migration is much older than development policy. Moreover, the EU realizes very well that, among the root causes of migration, are issues of high relevance for development policy: poverty, lack of decent jobs, conflicts, bad governance and last but not least environmental problems. Ms. Faucheux's contribution in this volume points out very well how climate change is affecting the issue of migration. The link between migration and development is therefore logical. That this link is only recently acknowledged in the framework of EU's development policy can be explained by two reasons.

First, issues of migration are a relatively new addition to the European Union's list of competences. It is only since 2005 that we have our Global Approach to Migration. Until very recently, migration questions were of a purely national competence. Therefore, a common approach was by definition very difficult. The recent creation of the Frontex Agency to better coordinate the protection of the EU's borders against illegal immigration shows that the issue is now in the process of triggering a certain institutional reaction in Europe. But this is a very recent phenomenon. When we are dealing with migration, producing a coherent EU policy response always requires difficult coordination work.

Secondly, apart from migration there are many other European policies that have an impact on development. But it is only since about two years that there is a systematic discussion about how these policies can contribute to development, in the context of our efforts to enhance Policy Coherence for Development. Adapting European policies like trade, agriculture, fisheries and migration in such a way that they do not counteract the

development policy approach, but rather strengthen it, is a recently discovered challenge. So again here we are in a situation where things are evolving rapidly and where we only just now create a better basis to deal in particular with the issue of migration into Europe from Africa or to address questions of migrations inside Africa.

THE EU RESPONSE TO MIGRATION AND DEVELOPMENT

The first step in the EU's response to the migration issue has been to establish a dialogue with the partner countries in Africa and elsewhere. As a basis, we have a well established political dialogue with governments of the partner countries. We use this to analyse the issues at stake, how are these issues perceived, and what the governments can do. For the moment, we are working on a series of specific missions to African countries. Member States participate along side with the Council and the Commission. We use these missions to discuss all issues of migration in a holistic approach.

At the continental level the migration dialogue between the EU and Africa led to the EU-Africa Ministerial Conference on Migration and Development of November 2006 in Tripoli. This historical event created a basis for continued discussion and cooperation in this domain, based on an action plan, which is very comprehensive and embraces many of the issues that have been mentioned in the other contributions. The implementation of this action plan is fully under way now, and will be reconfirmed and strengthened at the EU-Africa Summit of December 2007 in Lisbon.

One of the concrete actions currently being prepared it the establishment of a network of regional observatories in Africa to study the migration phenomenon. It is correct that there are no complete and updated statistics for movements between African countries and on migration routes to Europe. Establishing the observatories is a necessary step to find out more about the phenomenon in order to develop policies to address it.

THE ISSUE OF THE REMITTANCES

In relation to migration from developing countries, the issue of remittances is very important. The total amount of migrant transfers exceeds official development aid. In most of African countries, remittances are also bigger than the overall amount of foreign direct investment. That shows how important remittances are (but also how little foreign direct investment goes to Africa).

Remittances are also important because they allow immigrants to sustain the families that are staying in Africa. We are not in favour of trying to direct or to influence where remittances go. Remittances are private money. But what we can do is to improve the system. We can try to reduce the transfer costs and therefore make sure that more of the money arrives with the families in Africa. This would be an area where the Commission will propose action soon to favour this.

THE ISSUE OF BRAIN-DRAIN

Another important issue is this question of brain-drain. For instance, one of the reasons why the health systems in Africa are not working is because health workers are emigrating and there is no skilled staff left. Thus, if we allow migration to Europe, we also have to address the issue of brain-drain. We need to help African governments to ensure that there are decent employment opportunities in the African health systems. Here we can act with development assistance. We also try to promote so-called 'circular migration', where migrants move back and forth between their country of origin and country of destination, and can professionally contribute to development in both these countries.

You may have heard recently about the proposal of the Commission to introduce a blue card for highly skilled workers who seek jobs in Europe. Europe needs skilled workers and it can provide good job opportunities for migrants, also from Africa. The Commission proposal also addresses the issue of brain-drain through small technical devices that will promote circular migration and will thereby contribute to matching the two interests: the personal interest of people who want to come to Europe and the interest of African countries and systems that need to have access to skilled staff.

PROVIDING INFORMATION

Providing correct information on migration in the developing countries is also a crucial part of development policy. We are right now in the process of establishing an important pilot project in Mali. A Migration, Information and Management Centre would provide information to potential migrants about the possibilities of legal mobility and migration inside Africa and to Europe, about the dangers of illegal migration, and about other legal and administrative issues. By establishing this Migration, Information and Management Centre, which we obviously expect to replicate in other African countries, we are very specifically using development funds to address in a very large way the issue of migration.

CONCLUSION

The preceding paragraphs make clear that we are in the middle of a paradigm change on migration and development: moving away from a security focused approach, to a more comprehensive approach, which also looks at employment, labour mobility and development. We obviously recognise the huge potential of migration: for Europe, for Africa and other developing countries, and for individuals. But in order to implement and to transform this paradigm change into policies, there are still a lot of questions to be solved.

We are now lifting this subject to the highest political level. The 2007 Summit between EU and Africa in Lisbon, will adopt a *Joint EU-Africa Strategy*, which will go far beyond the traditional development agenda. The *Joint EU-Africa strategy* notably contains eight strategic partnerships between Europe and Africa. One of these strategic partnerships is on Migration, Mobility and Employment. This new partnership will implement a framework for many of the issues that I have outlined above. This provides us with a very solid political basis to deepen our dialogue and to develop our policy in this area.

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European Governance of Sustainable Development and the Doha Development Agenda([1])

(with a special reference to the implications for the Czech Republic)

The Earth Summit in Rio de Janeiro([2]) could be seen as the first serious attempt of the international community to overcome the fragmented governance and in the effort to face the global economic, social and environmental impacts of the globalization at the multilateral level. The participants of the summit agreed on the Agenda 21 (UN, 1992a), the set of ambitious goals for the upcoming years, as well as on many treaties enhancing the protection of the environment.([3]) Five years later, the Review of the United Nations Conference on Environment and Development concluded that the unsustainable trends

([1]) This chapter has been worked out within the framework of the Czech Science Agency Project *"Regionalism and multilateralism: foundations of the new world trade order?"* No. 402/07/0253, and the Research Plan of the Faculty of International Relations *"Governance in context of globalised economy and society"* No. MSM 6138439909.

([2]) The United Nations Conference on Environment and Development held in Rio de Janeiro in June 1992.

([3]) Rio Declaration on Environment and Development and the Statement of Principles for the Sustainable Management of Forests belong among the most important.

in global development continued and the environment degradation was even faster than in 1992 (UN, 1997b). The main reason, why the negative trends could not be inverted, was pointed out in the United Nations Development Program's Report in 1999 as the unprecedented growth in world consumption (UNEP, 1999). The insufficient results of actions introduced by the international community at the multilateral level led many countries to work on the solutions on their own in the framework of the regional integration. The leading role was recently taken over by the European Union (EU).

The EU became the key player at the attempt to face the global climate change and to introduce the mechanisms that tend to the more sustainable management of the natural resources. The major official document of the EU that tried to promote those principles was the Sustainable Development Strategy (SD Strategy) of 2001 (EU, 2001a), but the first significant international success of the EU policy was probably achieved when the Kyoto Protocol (1997) was promised to be ratified by Russia in 2004.(4) While the EU is the second largest green house gases emitter, second only to the United States (EPA, 2002), it is well understandable that it introduced the first emission trading system and tries to hold a high climate policy profile. As the reflection of an even enhanced global competition, continuing deterioration of the environment as well as the serious disorders of the developing countries, the EU amended its first strategy and introduced the Renewed Sustainable Development Strategy (Renewed Strategy) in June 2006 (EU, 2006). Further step was concluded in March 2007, when the European Council committed to reduce the carbon emissions by 20% by 2020 compared to 1990 and to use 20% of the renewable energy sources by the same year (EU, 2007). The achievement of these ambitious goals could not be evaluated as a significant contribution to the solution of the global climate change problem, if the other members of the international community do not spend the effort to work together in attempt to reverse the negative trends in the global environment. The need for a common action was acknowledged by many international organizations, especially the United Nations (UN), the Word Bank Group and World Trade Organization (WTO), but the structure of the multilateral environmental governance is still insufficient.

The aim of this paper is to outline the institutional structures of the multilateral governance of the sustainable development, particularly in the field of global environment. It analyzes the contribution of existing international organizations and in more detailed way the approaches of the World Trade Organization. It also describes reasons for its involvement and its relationship to the Multilateral Environmental Agreements, especially due to

(4) Russia ratified the Protocol on 18th of November.

its dispute settlement mechanism. Consequently, the second part tries to characterize the participation of the European Union within the environmental governance as defined in its strategies with respect to the crucial role it plays. The final part outlines the implications for the Czech Republic and the results that were achieved.

PARTICIPATION OF INTERNATIONAL ORGANIZATIONS ON THE SUSTAINABLE DEVELOPMENT POLICY

As stated above, the first serious attempt to answer the challenges of the sustainable development was represented by the Earth Summit in 1992. On the other hand, it was certainly not the first multilateral body that tried to solve the global environmental issues. The multilateral management of these problems began at the United Nations Conference on the Human Environment in Stockholm in 1972. As the result of the Conference, the United Nations Environmental Program (UNEP) was established that has become the major UN instrument in the field of the global environment (UNEP, 1972).

The main and almost the crucial doubt that can be addressed towards the functioning of UNEP is that it lacks the relevant tools to force the participating countries to respect the agreed rules. It has become visible that the key role at the introduction of any binding multilateral rules will be carried on by other international institutions. The international community did not pay enough attention to the issues of the sustainable development except of the actions taken by the United Nations. It creates the problem of the adequate multilateral environmental governance. The UN agencies act as important initiating bodies of the multilateral sustainable development policies, but the enforcing role will be probably played by others. The World Bank Group could certainly be one of them. In 1999 the World Bank agreed on the establishment of so called Prototype Carbon Fund that was meant as a contribution to the solution of global climate change problems. It introduced an interesting opportunity, how to involve the private companies through the PPPs (Private Public Partnerships), but it does not represent the complex coverage of the global environmental governance issue (IBRD, 2000).

During the previous decades, the environmental problems also became a vital part of the discussions held within the framework of General Agreement on Tariffs and Trade and later World Trade Organization. The issues that could be mentioned include the establishment of the Commission on Trade and Environment in 1994 (WTO, 1994a) and introduction of its Report concluded in 1996 at the Singapore Ministerial Conference or adoption of negotiation mandate on WTO relationship to the later Multilateral Environmental Agreements at Doha Ministerial Conference in 2001 (WTO, 2001). The reason, why the

WTO had focused on the environmental problems is based on the statement of the Preamble of the Agreement establishing the WTO, where the sustainable development and the protection of the environment were mentioned as its objectives. However, the legal text of the agreement does not answer the question, why the WTO ought to deal with the problems of the environment, if there certainly are more suitable existing institutions in charge of it. The answer can be found in the nature of the sustainable development. As introduced above, the concept of the sustainable development includes the necessary regulation of the environment and economy at the national as well as global level. The environmental regulation is further closely related to the international trade, particularly due to the potential danger of the race to the bottom hypothesis or eco-dumping theory.

The race to the bottom hypothesis deals with the problem of a different environmental law in two or more nations (Nordström – Vaughan, 1999). The freedom in setting up the national environmental law can lead to the competition in offering the most favorable conditions for the manufactures, which therefore mean the least favorable for the environment. The common action by the trading partners is the way, how to eliminate the potential danger of race to the bottom hypothesis. If the international community decides to adopt the common environmental standards, the relocation of the polluting industries will lose its sense. The environmental standards are closely related to the WTO agenda and the need for the common approach makes it clear, why the WTO should be involved.

The relationship between trade and environment is dealt within the WTO at two different levels. First of them is represented by the political negotiations that are supposed to lead to the agreement on the common environmental rules. It is important to stress that due to the difficult procedure, how the WTO rules can be amended, the achievement of the common agreement is not probable. The second level could be seen within the WTO jurisprudence and therefore by establishing the environment related cases though the dispute settlement procedure. Due to the required unanimous agreement on any amendments of WTO rules, the negotiation process is quite slow and complex. In regard to the decaying state of nature, the first level is not sufficient enough. On the other hand, the unique system of compulsory jurisprudence, right of appeal, legally binding results and the possibility of sanctions in the case of non-compliance makes the WTO very powerful and influential at the environment protection issues.

In recent years, many countries have preferred the so called Multilateral Environmental Agreements (MEAs) to the negotiations within the framework of WTO, due to the slow process and reasons mentioned above. MEAs could be described as the legally binding agreements between the governments dealing with the common environmental issues.

They became the centrepiece of the environmental governance and as they developed around themselves different groups of actors and institutions, the different regimes were therefore created in regard to the environmental protection. However basically all MEAs respect certain common principles, the danger of the fragmentation is the legal multilateral framework is very strong. Therefore, we can conclude that the international environmental governance is very fragmented and the competencies are shared among too many institutions within different regimes (UNEP, 2001).

There was no MEAs related dispute brought to the WTO dispute settlement mechanism so far, but the possibility of that is certainly influencing the further creation of those regimes. The judicial organ of the WTO would be the ideal body to clarify the compliance of these regimes with the provisions of the GATT. The problems in defining the relationship between the WTO and MEAs under the Commission on Trade and Environment led also to two different results. First, the developing countries are strengthening their opposition towards the common environmental rules in the framework of WTO due to the fear of the eco-protectionism. Second, the developed countries, in particular the EU members, have introduced even more ambitious aims and strict legally binding rules and therefore have enlarged the existing gap in between the two groups of countries, due to which the common agreement has became more complicated.

To finally describe the current state of the relationships between the MEAs and the World Trade Organization, we have to stress two remarks. The complicated negotiation system under the WTO rules led to the creation of many agreed environmental regimes that are concluded outside of the WTO framework. The Doha Round of negotiations does not show the signs of the upcoming change of this state. Second, the existence of different regimes can lead to the conflicts with the common trade rules. The possibility of conflicts ought to press the WTO members to come to the conclusion on the environmental rules. Otherwise, the multilateral environmental governance will continue to lack the tools to enforce the effective rules that would contribute to the solution of the climate change and other global environmental problems.

The cooperative solution to common environmental problems in the world can be highly recommended not only because of its efficiency in achieving of the global environmental goals, but also due to the avoiding of the distortion of the international trade involved in the eco-dumping or race to the bottom hypothesis. The World Trade Organization offers the suitable background for the attempt to get closer to the common international standards in environment. The natural disposition does not mean that the WTO will actually act as suggested. On the other hand, important contributions to the sustainable development

agenda were already made in the framework of the Doha Development Agenda (DDA). This will be described further.

The Doha Round of the multilateral trade negotiations is the process that started at the WTO fourth Ministerial Conference in Doha in November 2001. The decisions that were made included the launching of the new round of trade negotiations, which would deal with further trade liberalization as well as with the strengthening of the assistance to developing countries. The countries considered as developing had been experiencing long term problems with the implementation of the existing trade agreements and the DDA made an attempt to help them facilitate that problem.

The far-reaching goals that were agreed on in Doha may introduce a new role for the WTO itself. The organization will surely play more important role in poverty reduction, enhancement of economic growth and better international governance. The position of WTO has therefore moved from the international trade focused agency towards the role of a global player in the field of the sustainable development of the planet.

The Doha Development Agenda continues to evolve with an important progress made at the sixth Ministerial Conference in Hong Kong in December 2005 (WTO, 2005) and with the negotiations going on during 2007. The Agenda includes broad range of subjects, for instance agriculture, services or intellectual property as well as the relationship between the trade and the environment. This is strongly related to the MEAs.

Multilateral Environmental Agreements, the international treaties dealing with the environmental issues, are basically agreed on outside of the framework of the WTO, but due to their nature, some of them bear strong influence on the international trade. It is in the interest of all the members of the international community that these are in accordance with the general rules on trade provided by the WTO. The intensified coordination of both is a key condition for the smooth functioning of the international trade. On the other hand, there was so far no disharmony in the conditions set up by the MEAs and the WTO rules. In spite of that, their consonance is highly desired and can be achieved by the stronger communication and coordination of all the relevant members of the international community.

Despite of many obstacles and delays that the Doha Development Agenda is facing, the negotiations continue during 2007 and the progress already achieved is promising successful conclusions of the current round in the future.

CONTRIBUTION OF THE EUROPEAN UNION TOWARDS GLOBAL SUSTAINABLE DEVELOPMENT

The European Union adopted its first Strategy for Sustainable Development in June 2001 as the respond to the serious challenges that the EU was facing. The global environment seemed to be decaying even faster than in the years before, the structure of the global economy was changing and the EU had to adjust broad range of its policies to the ongoing process of globalization. However, the environmental problems of the planet were officially accepted many years before.

In 1987, the so-called Brundtland Report (UN, 1987) was published as a result of the five years effort of the World Commission on Environment and Development to improve well-being in the short-term without threatening the local and global environment in the long term. The report introduced the definition of a sustainable development in the form that was later adopted by the European Union and therefore is being used in its strategies. As the follow-up, the first Earth Summit was held in June of 1992 in Rio de Janeiro, where the global Agenda 21 was agreed on. The international effort was accompanied by a growing activity of the European institutions that culminated at the European Council Summit in Göteborg (EU, 2001b), where the first SD Strategy was adopted, in June 2001.

The need for stronger international cooperation as an integral part of the EU policy was acknowledged in 2002, when the SD Strategy was supplemented with its external dimension by the European Council Summit in Barcelona (EU, 2002). Although the intensive effort of the EU continued, the deterioration of the world environment had not stopped. Probably the most visible signs of a deficient activity could have been recognized in the field of the climate change and the energy resources availability. These negative trends found their exposures also in the development of a European society, especially in its aging and demographic pressure. The urgent action was required and the EU responded shortly. The European Commission reflected all these negative challenges and rising risks (EU, 2005). The activity of the Commission led to the Renewed Strategy for an enlarged EU that was agreed on in June 2006.

The Renewed Strategy presents the essential and therefore the most important EU document in the field of the sustainable development and the complex environmental protection and it is wise to introduce its key elements in a more detailed way. On one hand, it is meaningful to mention that it is basically built up on the SD Strategy as implemented in Göteborg in 2001. This has to be understood as another step in the continuous process of the complex environmental protection in the framework of a broad international effort

to minimize the negative results of the human activity. It forms a part of an EU strategic respond to the challenges of the globalization and the structural changes of economy that it bears. On the other hand, it brings an important connection to a Lisbon Strategy (EU, 2000) and also more efficient approach towards the achievement of its ambitious targets.

The Renewed Strategy is aimed to be a single and coherent document that will set up the road to meet the long term objectives of the EU in the dynamic and changing world. It repeats the key definition of the sustainable development mentioned above. In accordance with the UN approach([5]), the EU understands the sustainable development as the state when the needs of the present generation „should be met without compromising the ability of future generations to meet their own needs"([6]). To achieve this long standing goal, the strategy stresses the importance of an international cooperation with the partners outside of the EU, especially with the dynamic developing countries whose impact on the global environment may have been underestimated.

The four key objectives that are set in the EU document include the environmental one as well as the social and economic ones. The growing threat to the global nature and environment is linked to the economic development and these two sides of the human activity cannot be solved separately. The very important objective is the one that emphasizes the need for meeting the international responsibilities. All EU policies, including external ones, should be consistent with the overlapping aim of the promotion of the sustainable development not only within the EU borders, but worldwide.

The four basic objectives introduced the background for the principles that will guide the policy making in the EU. The principles include very wide spectrum of rules, from the specific ones as the polluters pay principle to the very broad ones as the higher involvement of citizens and social partners. The significant importance of the Renewed Strategy can be seen in the attempt to find and strengthen the synergies between the sustainable development and the Lisbon Strategy for Growth and Jobs (Lisbon Strategy). Although the Renewed Strategy is considered as the ultimate and overarching one, the Lisbon Strategy brings an important contribution towards the ability of the EU to adjust its policies to the pressure of a changing world economy and therefore enable to achieve the objectives of the Renewed Strategy more efficiently.

([5]) How stated in the Rio Declaration on Environment and Development from 1992.
([6]) The official and respected definition of the sustainable development as can be found in the EU Strategies.

One of the most significant acknowledgments in the recent Renewed Strategy can be found in the acceptance of the fact that the economic and environmental objectives do not stand against each other but can be achieved together. Both strategies call for the necessary structural changes of the European economies that will reflect the globalization and the importance of the global trade for the economic and social development.

The new development of its implementation and even quite a different approach to the essential understanding of the sustainable development itself can be recognized within the new member states. Their participation on the practical adoption of the Renewed Strategy may move its original ideas on a new level. As the national strategies of the sustainable development in new member states show, the Renewed Strategy is implemented in a pattern that is focused on the economic goals. For instance, the Czech Republic defines its goals in the framework of the sustainable development as six basic groups with the economic ones on the first and basically the most important place (MŽP, 2006). The sustainable development is understood as an approach that leads to a long term and steady economic growth. This is not only the aim on its own but also the tool, how to achieve the other goals, mainly the environmental ones. The strong growth of the GDP will allow the allocation of more resources in the environmental protection and therefore help to improve its conditions. The basic goal is to get closer to the standard of living of the original member states and the environmental situation is an important but not the only part of that process.

This approach can bring many doubts but one significant advantage is clear. The policy of the new member states links together the goals of the strategy with the Lisbon Strategy ones. The other addition is that the Renewed Strategy is evaluated according to the fulfilment of the set of measurable indicators. The linkage to the economic sphere makes it easier and more efficient.

However, the new member states can face the similar problems as the Czech Republic. The economic part of its implementation of the sustainable development policy is showing the signs of major improvement but the environmental one stagnates. One way, how this can be explained is just due to the strong emphasis on the economic growth that brings another incentive for the deterioration of the environment. The innovative approach of the new member states has to be viewed very carefully and its final evaluation will need certainly more time. The essential merit is however clear and could be adopted by the EU as the whole.

The challenges that EU is facing cannot be addressed without stronger and more efficient international cooperation. For instance the problems of the climate change or global poverty can be solved only with a great and significant effort of all nations and the involvement of the existing international agencies is highly useful. The successful attempt to conclude an international action is represented by the famous Kyoto Protocol and its commitments. However, this cannot be considered as the sufficient effort of the international community in a struggle to find the responds to threats the world undergoes. The existing international organizations should be more involved in this process as the common action is highly required.

As already mentioned, not only United Nations and its specific agencies, but also other organization could constitute the needed framework for the world wide action. Particularly, the World Trade Organization represents the body that could be used as an area to negotiate and find the compromises in a wide range of topics related to the sustainable development. There is no surprise that even the Renewed Strategy mentions the WTO and the negotiations in its framework as the right place to promote the sustainable development. This aim is in accordance with the preamble of the Marrakech Agreement(7), where there is the sustainable development mentioned as the WTO objective as well (WTO, 1994b).

The European Union proposed already in 1996 two alternative ways, how to amend the GATT Article XX, in regard to its general opinion on the issue of the relationship between the WTO rules and the provisions of the Multilateral Environmental Agreements. The topic was analyzed above, but it is important to mention that the EU played, from the early beginning, the key role in attempt to amend the trade rules in the framework of WTO in respect to the MEAs.

The move towards stronger international cooperation as an integral part of the Renewed Strategy can be also seen within the plan of actions that should be undertaken by the EU institutions. The Commission and the member states are encouraged to increase the effort to include the international trade and investments as the tool to fulfil the sustainable development objectives. This approach is suggested not only within the multilateral or regional context, but also in the bilateral level of negotiation. The aim to transform the United Nation Environmental Program into a UN agency is raising several doubts. It is a question of an approach if the number of the international organizations is not already considered as sufficient enough to cope with the global environmental and economic

(7) The agreement of 123 countries from April 1994 establishing the World Trade Organization.

problems. It may not be the lack of the agencies, but the lack of its willingness to address the global challenges and to cooperate with the other bodies of the international community to enhance the synergies of the common action.

The current activities of the enlarged EU in the field of stronger international cooperation to prevent the negative aspects of human activity can be generally observed at three different levels. The first level is represented by the EU policies within the framework of the United Nations. All the projects that can be submitted to this category are related to a broad and long-term goal of fighting and diminishing the global poverty. Projects undertaken of purpose to get closer in the achievement of this goal are numerous and only the most important can be mentioned. The EU has decided to play an active role in the fulfilment of the Millennium Development Goals([8]) and since 2006 every member state is supposed to allocate at least 0.33% of its GNI as official development assistance. Other activities include an EU participation in the UN Commission for Sustainable Development. The new 2008/2009 implementation cycle will focus on rural development, agriculture, desertification and Africa. The second level is constituted by the bilateral and regional trade agreements, probably most significantly with the African, Caribbean and Pacific countries([9]). The third and for the purpose of our paper the most important level is the World Trade Organization and the activities of the EU within the global trade framework.

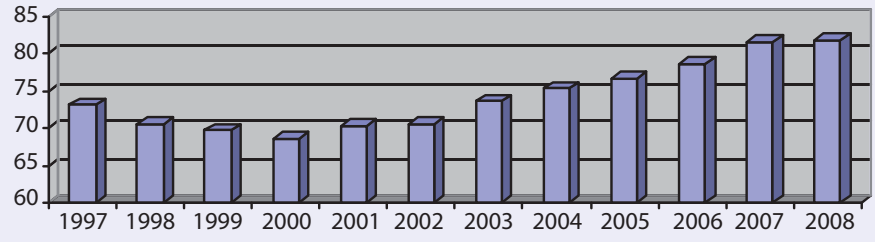
THE APPROACH OF THE CZECH REPUBLIC TOWARDS THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT

As stated above, the policy following the principles of sustainable development is provided through three basic fields. For new member states of the EU, the crucial problem is how to combine the approaches within the economic, social and environmental pillar. Due to the historical burden that has to be quickly overcome by Central and East European countries, major stress is being paid to the economic part of the sustainable development. It can be noticed in the effort of new member states to converge their economies to the level of West European countries as soon as possible. Official documents of the Central and East European countries, as well as the Sustainable Development Strategy of the Czech Republic (MŽP, 2006) try to put the accent on sustainability of economic growth and their strength in cases of internal or external shocks and negative tendencies. This

([8]) The Millennium Development Goals is the set of goals that were agreed on at the Millennium Summit of the United Nation leaders in 2000. The aim is to achieve them by 2015.
([9]) In the form of the Economic Partnership Agreements.

strategic goal is therefore described in the set of partial goals that focus on issues like energy, resource management or regional development. The national Sustainable Development Strategy of the Czech Republic was approved by the government in 2004. Strategy defines major goals as well as partial goals and tools that should be used to achieve them. Strategic goals are formulated as economic pillar, environmental pillar and social pillar.

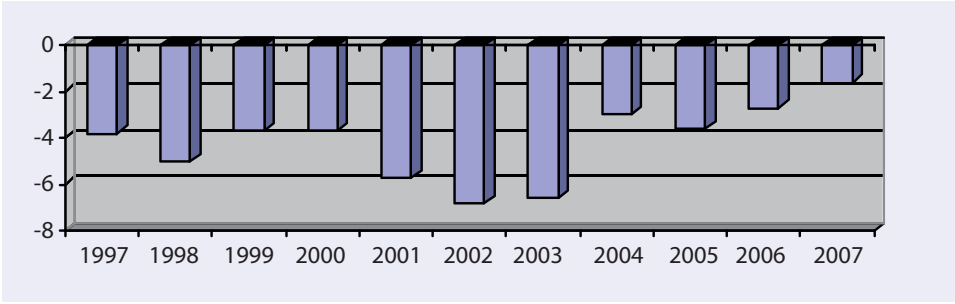
In the economic pillar, the situation within the Czech Republic and more generally in the region of Central and East Europe, improves. The most important sign of this development is the long-term strong growth of GDP and of the Labor Productivity. The level of Czech GDP per capita shows *Graph 1.*



Graph 1: GDP of the Czech Republic per capita in PPS, 1997-2008; GDP per capita in Purchasing Power Standards (PPS) (EU-27 = 100)

Source: GDP per capita in PPS. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=STRIND_ECOBAC&depth=2

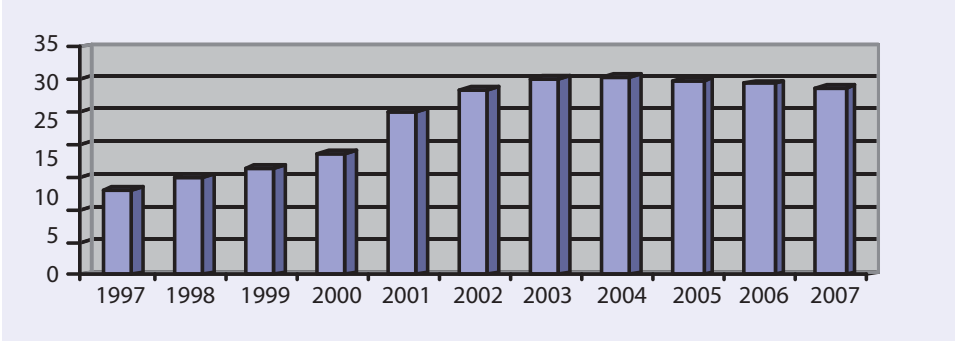
The long-term relative position of the Czech Republic to the West European countries is however without any significant change, partly because of the transformation of our economy. The robust economic growth can be evaluated as a big success. On the other hand, the negative tendencies in the public finances remain. The relevant data shows *Graph 2* and *Graph 3*.



Graph 2: Public balance – Net borrowing/lending of consolidated general government sector, 1997-2007; as a percentage of GDP

Source: Public balance. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=STRIND_ECOBAC&depth=2

The important reforms of the health care and pension systems were not done yet, which can cause many serious problems in the future. Worries can represent the small level of the separation of economic performance from the burden to the (decoupling), where none of the measured indicators as material, energy or transport load in proportion to the GDP did not improve in the multilateral comparison. However, the energy load is showing signs of positive trends



Graph 3: General government debt – General government consolidated gross debt, 1997-2007; as a percentage of GDP

Source: General government debt. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=STRIND_ECOBAC&depth=2

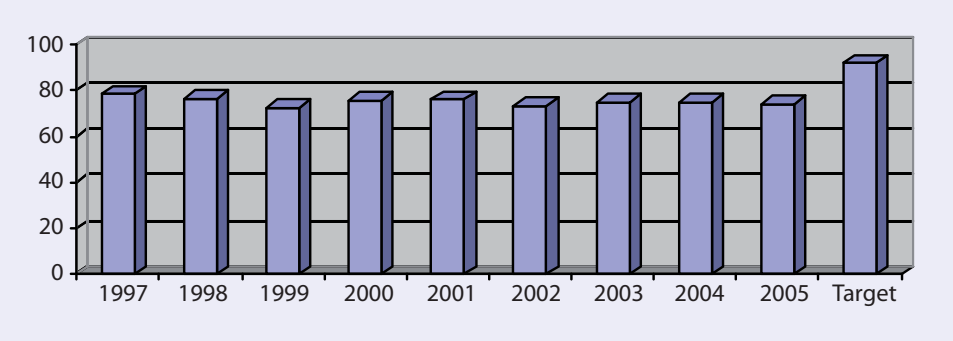
Rather complicated is the situation with the fulfilment of the National Sustainable Development Strategy of the Czech Republic in the environmental pillar. First partial goal at this field is to secure the highest quality of all parts of the environment as possible (including their basic mutual relations), consequently improve them and therefore to cre-

ate the conditions for the regeneration of nature and minimize and even eliminate the risks for human beings. In respect to that also at highest possible economic and social level protect the wealth of the Czech Republic (non-renewable resources, biological and landscape diversity). Second partial goal is to minimize the potential conflicts between of interests between economic activities and environmental protection. Another aspect of this pillar is to influence, through the education and the dissemination of information the individuals and general public. Due to this, it is very important to allow the general public the access to the relevant information and actively support the environmental education. The third partial goal is to contribute, in respect to the limited possibilities of the Czech Republic to the solution of European and global environmental problems (especially the danger caused by the climate change and the ozone layer as well as the reduction of biodiversity).

Between 1990 and 1999, an extremely fast improvement of basic parameters of environment was achieved. The air pollution was reduced at record speed, the quality of water and of nature improved extremely. However the world wide decrease in biodiversity was not curbed. On the other hand, since 1999 the improvement of the environment slowed down significantly, at some cases even stopped. The level of CO_2 emissions that is measured in the Czech Republic is slightly above the EU-27 average. The field of the climate change, especially the CO_2 emissions dominates the measured indicators compared internationally and we have to stress that this area is for the Czech Republic one of the most problematic. The development of the environmental investments is not very positive as well. After high rate of annual investments during the period of 1992-1998 (above 2 % of GDP), there was a sharp drop below 1 % of GDP in 2001 and this inappropriate level still continues up to now (MŽP, 2006).

The Czech Republic signed and ratified the United Nation Framework Convention on Climate Change as well as the Kyoto Protocol. In the period of 2008-2012, we commit to reduce the amount of measured aggregated emissions of green house gases about 8 % compared to the base year 1990. In the case of a relative indicator of CO_2 emissions per capita, we bind to achieve the level of EU average of 2000, it means that by 2020 it ought to be 8.7 ton per capita and year. The Czech Republic reduced total emissions about more than 26 % from 190 million ton in 1990 to 140 million ton in 2004, which is a success that allow to fulfil the Kyoto Protocol commitments without any major difficulty. *Graph 4* shows that even the amount of emissions per capita reduced in the mentioned period. The total decrease was possible due to the reduction of industrial production in the beginning of 1990s that was caused by the restructure of national economy going together

with the closure of the energy demanding factories and a complete modernizing of the economic structure of the country.



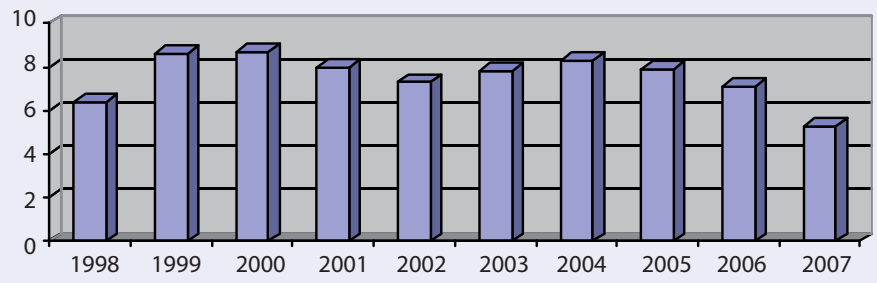
Graph 4: Total greenhouse gas emissions in the Czech Republic, 1997-2005, index base year (1990) = 100

Source: Total greenhouse gas emissions. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=REF_SD_CC&root=REF_SD_CC&depth=3

Although all the attempts, the CO_2 emissions per capita compared to others European countries remain still high and represent a serious problem for the Czech Republic. On the other hand, we can state that in the beginning of 1990s not only our country, but also Poland, Slovakia and other Central and East European countries reduced the emissions significantly. The decrease has slowed down recently. Some of the old member states of the EU, for instance Austria or Spain increased the CO_2 emissions within the same period and the trend is there quite opposite that in our region.

The third pillar of sustainable development policy, social field, stands quite aside. The first partial goal is to support the development of human resources and through to secure higher level of social cohesion. Second aim is to reduce the unemployment rate as far as the social-economic motivation of people to engage in the work force is maximized. The third one is to keep stable number of citizens of the Czech Republic and improve their age structure. Indicators in the social area suggest that the development is quite positive. The main indicator, the average life expectancy is continually increasing since the collapse of communist regime. However, in the recent years there has been rather stagnation and comparison to the EU-15 average is still not optimistic. International comparison shows that the amount of people living in the state of extreme poverty is very low and the Czech Republic has stand on the first place in the EU-27. Since 1999, the social expenditure of the country growths very fast, about 10 % a year, which can create problems in the future. Contrary, the item that grows very slowly is the average level of pension. The

rate of pension to the average salary decrease rapidly, from 45 % in 1998 to 40 % in 2005. Some indicators of the social situation show *Graph 5*.



Graph 5: Unemployment rate in the Czech Republic, 1998-2007; unemployed persons as a share of the total active population

Source: Unemployment rate – total. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=STRIND_EMPLOI&depth=2

CONCLUSION

The multilateral environmental governance structures are still very limited. Although the United Nations and its agencies play an important role, they lack the tools to enforce the rules that were agreed. The other suitable organization is the WTO. The complicated negotiation system makes it very difficult to come to any binding conclusions. The significant number of countries prefers to agree on the common environmental rules outside of its framework and concludes the Multilateral Environmental Agreements. They bear many potential problems in regards to the possible collision with the common trade rules of the WTO.

The further international cooperation is crucial for the smooth and efficient promotion of the sustainable development worldwide. Although the WTO is probably the most appropriate institution to combine the economic and environmental issues together, the current development does not promise any upcoming multilateral agreement dealing with those problems. As for now, the activities of the European Union ought to be evaluated as the most detailed and complex approach to the problems of the global environment and it seems that its leading role will continue further.

The nature of the global problems and the time pressure together with the new atmosphere in the WTO after the adoption of Doha Development Agenda led the European

Union towards the stronger support of the broader international action. The main goals of the EU policy within the WTO are focused on four main subjects.

Firstly, the EU continues to press on the easier market access for industrial goods. The basic instrument is the tariff reduction and therefore it does not represent any new approach related to the prospect of the sustainable development. Secondly, the EU wants to enhance the market opportunities by negotiations on services. It is supposed to lead to the higher consumer utility, but as Commission itself admits, the liberalization has got its own limits where the principles of public interest are at stake. The third area of the EU interest is the agricultural goods, where the problems of national subsidies form the main topic for negotiations. As the previous ones, this goal is not important for our paper. Finally, the fourth one is related to our topic, the sustainable development.

The EU basic goal is to increase the coherence among the actions undertaken by WTO and others international agencies. Its own effort to implement the Renewed Strategy could be accompanied by the similar actions of its partners and therefore the achievement of its goals would be easier and more efficient.

The long standing devotion of the EU towards the developing countries could be seen at the offer that was made in October 2005 before the Hong Kong Ministerial Meeting. The EU has suggested the 70% reduction in trade distorting agriculture subsidies as well as total reduction of export subsidies. In spite of the failure of the meeting, it shows the approach the EU holds towards the developing countries within the negotiation of the WTO.

The Doha Development Agenda is a process that seems to bear the right characteristics as a right place for a stronger international coordination of the subjects related to the sustainable development. The EU is one of the key players of the WTO and with its own strategy for sustainable development it would be no surprise if the WTO becomes even more important base for the EU's move towards the society with the sustainable growth and development.

The position of the new member of the EU states is quite different due to the historical burden they bear. The case of the Czech Republic shows that the situation in economic pillar of the sustainable development policy is improving. On the other hand, the relative position of the country to the West European countries is still at the same level and has not changed yet. Strong economic growth is the positive factor. The environmental pillar has undergone significant improvement in the beginning of 1990s. Recently, the progress

slowed down. Social sector indicators improve, but their development is quite slow. The participation of the Central and East European countries on the sustainable development policies will be increasing and the way they went through since the collapse of communist regime represent an interesting example of possibilities, challenges and weak points that the policy includes.

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V. Conclusions

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Professor Manuel Porto

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Europe, Education and Globalizing World

C'est un honneur pour moi d'introduire les contributions de clôture de cette conférence globale Jean Monnet.

Au cours de cette conférence, j'ai été frappée par l'honnêteté, la hardiesse et la qualité intellectuelles des points de vue et positions qui ont été exprimés. A l'heure où l'Europe et les autres régions du monde entrent dans une nouvelle phase de l'histoire, c'est précisément ce que nous devons exiger de nous-mêmes. Le succès de cette conférence confirme de nouveau la qualité des travaux effectués au sein du Programme Jean Monnet.

Tout comme le Commissaire Figel' l'a souligné avant moi, je tiens à rappeler que la communauté universitaire a un rôle crucial à jouer en nous aidant à présenter les idées innovantes et nécessaires qui nous permettront de faire face aux changements d'un monde en constante évolution.

Le programme Erasmus nous a montré le bon exemple: cette initiative, à l'origine uniquement orientée sur la mobilité, a ouvert la voie des changements bien plus importants. Pour rendre possible les échanges, les universités, enseignants et personnels encadrant, ont du coopérer étroitement pour la mise en œuvre de cette action. Ainsi, progressive-

ment et dans un mouvement d'ensemble, nos établissements se sont engagés dans la réforme de nos systèmes d'enseignement supérieur.

Je suis convaincue de la grande valeur ajoutée que le monde universitaire peut apporter dans les discussions que nous menons et je peux difficilement imaginer un "groupe de réflexion" plus à même d'influencer nos débats de société que votre groupe de professeurs du réseau Jean Monnet: à vous tous, votre audience dépassent les 250 000 étudiants par an! Ainsi, au quotidien dans l'enceinte de vos universités, vous participez activement à la promotion de nos valeurs européennes en partageant vos connaissances, votre enthousiasme sur l'Europe. Par votre engagement, vous la rendez plus lisible, plus accessible aux citoyens. Et c'est la raison pour laquelle nous attachons cette importance au réseau Jean Monnet.

Lors de cette conférence, vous vous êtes montrés critiques sur les thèmes que nous avons abordés, mais également à l'égard des actions des institutions de l'UE dans ces domaines. Pour autant, tout au long des échanges vous êtes placés dans une démarche constructive, et, j'ai apprécié votre franchise. En confrontant nos points de vue, nous pouvons ainsi faire évoluer nos pistes de réflexion et nos actes.

Par le passé, le réseau Jean Monnet s'est impliqué intensément sur l'avenir institutionnel de l'Union, sur la politique de voisinage et sur la question du dialogue entre les cultures. Maintenant, vous vous êtes penchés sur la question primordiale du développement durable pour l'Union, mais plus largement, pour notre planète avec notre perspective européenne. Cette conférence constitue le prolongement logique du thème que vous aviez choisi l'année dernière sur les enjeux de l'Europe à l'heure de la mondialisation. Une nouvelle fois, vous avez su identifier les défis que nous devons relever, tout en soulignant la complexité des problématiques que recouvre le sujet.

Pendant cette conférence, vous avez travaillé sur les sujets les plus brûlants, si vous me permettrez l'expression, auxquels notre monde doit faire face : changement climatique énergie et sécurité; mais également changement et migration démographiques.

Nous devons intégrer ces enjeux à notre mode de vie et prendre des nouvelles initiatives. Nos valeurs européennes communes - solidarité et cohésion; respect des droits fondamentaux; égalité des chances et non-discrimination; accès universel à l'enseignement et aux soins de santé; et enfin, dialogue multilatéral et paix - sont un bon point de départ pour une contribution viable et constructive.

J'ai été particulièrement frappée par le thème de la session précédente: comment pouvons nous créer des sociétés durables tout en affrontant le changement démographique, la pauvreté et le phénomène migratoire? Toutes ces questions se retrouvent précisément aujourd'hui au cœur du débat sur l'enseignement. Pour moi, cela démontre clairement que, dans notre monde globalisé et interdépendant, nous faisons face de plus en plus à des défis similaires, et c'est seulement en mettant nos réflexions en commun que nous pourrons trouver les meilleures solutions.

En passant de la langue de Voltaire à celle de Shakespeare, laissez-moi-vous présenter succinctement les réponses que nous pouvons apporter en matière d'éducation.

In our global world, Europe is falling behind. If we cannot meet today's – and tomorrow's - challenges, Europe's social and economic model will be at risk.

Europe's main asset is our human capital, our ideas, our creativity. But we need to make the most of this asset. We must invest in education and training. We must improve our systems to offer citizens better opportunities for lifelong learning, for the benefit of our economies and societies.

Europe is facing a **demographic dip**, in a society that depends more and more on knowledge. Yet one-third of our labour force is low skilled, and one in six young people leave school early. With a shrinking population and a more fluid labour market requiring high-level skills, education and training must become more attractive, and more relevant to society and the economy.

People today also need different types of skills. Just one generation ago, it was still possible to predict, more or less, the knowledge and skills that young people would need for the rest of their lives. This is no longer the case. It is a commonplace nowadays to say that young people can no longer expect to spend their whole lifetime in the same job, or even in the same sector. The jobs they will have may not even exist today. And the knowledge they require may be knowledge that we currently do not teach or even possess! So people have to learn and have the confidence to be creative and adaptable throughout their lives, otherwise they will be left on the margins.

Education and training isn't just about ensuring that people have the right skills in a rapidly changing economy. Education and training are also a path to social inclusion and active citizenship, which are just as fundamental for our citizens, and for cohesive societies. In a world of **migration**, education opens doors.

In a sense, how our education systems deal with migration is a litmus test of the wellbeing of our societies. We must offer more, so that the doors to employment and active participation in social and cultural life are open, and remain open, for everyone. We cannot afford to leave anyone behind.

At the same time, migration is a challenge for education systems. Diversity naturally calls for more nuanced policy responses. We have to look at migration and equal treatment, intercultural dialogue and multicultural values. We will be turning our attention to this area next year, during 2008 the EU Year of Intercultural Dialogue, highlighting what works in the different countries in the EU, when we plan to produce a Green Paper on Education of Migrants.

We must also strengthen **the place of education and training in the knowledge triangle**. The issues that have been identified at this conference must be met by nimble thinking, by brave and innovative solutions. This is the rationale behind the European Institute of Technology, which will probably take on the issue of climate change as one of its first challenges.

A telling aspect of how we prepare for a sustainable future is our relations with the rest of the world. **The European Union is not an island**; the European Areas for Higher Education and Research are open and we are engaging with our neighbours and the wider world.

Through the **Tempus** programme, the Commission is supporting the overhaul of curricula and management systems that will modernise higher education in 26 neighbouring countries.

New programmes such as EduLink and Nyerere will support capacity-building in education in the world's most disadvantaged regions, sub-Saharan Africa in particular. We also run bilateral programmes with Latin America, Asia, the United States and Canada.

Our flagship programme for worldwide academic cooperation, **Erasmus Mundus**, enables students and faculty from all over the world to study and teach in Europe. The Erasmus Mundus Partnerships, which send European students and faculty out into the world, are establishing sustainable education links worldwide.

The expertise and knowledge that these programmes generate are helping us modernise in Europe in turn, as well as making for ever-better cooperation with higher education institutions, students and scholars around the globe.

Let me add that it is my heartfelt conviction that education is not just about skills and knowledge. The two-way nature of the exchange that underpins all our education and training programmes –building trust and contacts between students, faculty and management in our interdependent world – is also a force for building better understanding and closer ties between people.

And this must be the cornerstone of our endeavours to solve the common challenges we face at the EU and global levels.

David White

Director, Directorate General Education and Culture of the European Commission

Sustainability for Migration, Education and Innovation

SYSTEMATIC SUSTAINABILITY

The Gothenburg European Council of June 2001 agreed on the need for European policy to take full account of sustainability. In doing so, it had a particular mind to the Lisbon agenda, agreed in 2000. Sustainability covers not just environmental aspects, but also economic and social aspects. As a result, sustainability has subsequently been treated as a systematic aspect of Lisbon and other major policy developments.

THE DEMOGRAPHIC CHALLENGE

The main features of the demographic situation of the EU are well known. The EU faces falling birth rates. These have affected all the Member States, although not always to the same degree. Germany is the most striking example. Fertility rates there fell below replacement levels in the early 1970s and have continued to fall. When low fertility continues for over a generation, the structural decline in the youth cohorts becomes deeply embedded. The cohorts reaching the fertile years are historically low; and with low fertility, the next generation will be smaller still. It would take many years to stop the consequences of this decline, let alone reverse it. The full effect of declining fertility has been

partly hidden from public awareness by increasing longevity. This has exacerbated the changing age structure of the population and in particular the increasing ratio between older generations and the working-age population. The consequences of increasing dependency have been widely discussed. It has also been concealed by free movement and immigration, which has been at historically high levels.

Such demographic changes inevitably affect the demand and supply for certain types of skills. There will be increased demand for services relevant to older people – not all of which are health related. Declining youth cohorts will affect the demand for child-related services. But the change in the age distribution of the working age population will also affect the adaptability of the labour force and may well affect creativity and innovation, which is often exercised by relatively young people. Further, around a third of this workforce is unskilled or low skilled. With the balance of the demand for labour moving towards higher skill levels, it will be difficult to both provide jobs for the less skilled and meet the demand for skilled operatives.

MEETING SHORTFALLS IN THE LABOUR MARKET

A skill shortfall can be compensated in the near-term by attracting suitable labour in free movement. But with the new Member States themselves experiencing low birth rates, this is a limited source over the medium term.

Beyond that, there is scope through migration from third countries. Many of the Member States have had recourse to such migration before, whether from former colonial dependencies, through the guest workers of the 60s and 70s, or by accommodating those fleeing political, economic or ecological disaster.

Some migrants have arrived with a basis in the language and culture of the host country, but others have not. Some have come in the hope of returning home later, while some have moved their permanent home to the host country. Inevitably, some who have moved with the intention of returning to their country of origin have found that they do not do so.

THE PULL AND THE PUSH ON MIGRATION

EU demand for labour will exert a pull on migration in the years to come. But there seems equally little doubt that migration will also be fed by a push of would-be migrants.

The European Union is an area with an aging, declining population of increasing wealth. But there are many countries in the world characterised by rapidly growing populations and stagnant or even declining wealth. The EU has close relationships with many of them, whether through proximity or history. The EU will continue to be an attractive destination for migrants seeking a better life.

Of course, the EU is not the only attractive destination for migrants. But its relative accessibility, its prosperity, its demography and its cultural diversity make an attractive cocktail.

Even if the EU goes shopping for migrants with certain skills, many of those anxious to migrate will be driven by completely different concerns. The world has more than enough potential for political, economic or ecological disaster to ensure this. Desertification has already led to large population movements. High energy costs and food shortages are causing problems, not just in the poorest countries, but in middle income countries too. Looking farther forward, it has been said that a 1-metre rise in the sea level would displace 55 million people in Bangladesh alone.

The demography of many of the larger countries of the world is changing as they develop. For example, a country like Egypt, whose population has nearly doubled in the last 35 years, has nonetheless seen important reductions in birth rates. But it would take a full generation of birth rates at replacement levels to stabilise youth cohorts. Hopefully health standards in developing countries will improve and longevity increase. This will provide a further major source of population increase. Therefore the time of stabilisation of population in potential emigration countries remains a long way off.

The conclusion has to be that migration to the EU will grow substantially for as far ahead as we can see, both from a burgeoning supply and from increased demand from the EU.

MIGRATION AND EDUCATION

Migration is already challenging education policy in the EU.

Across the EU, 1 in 10 pupils aged 15 and 1 in 7 aged 10 are of migrant origin, using that term in a loose sense to include those in free movement. In cities like Rotterdam, Birmingham, Brussels, half of school pupils are of immigrant origin. In Ireland, Italy, Spain the numbers of migrant pupils have tripled since 2000.

On average, migrant pupils perform less well in education. Part of the reason is that teachers are confronted with needs that are hard to meet. The children of migrant families often face language and cultural barriers that make it difficult for them to get the best from education. It is therefore hardly surprising that on average migrant pupils have lower educational achievement than their peers.

Education is a crucial instrument in integration. It will have to surmount these challenges if the EU is to successfully handle the migratory flows of the coming period.

UNEXPECTED INNOVATION

Europe has had a long history of successful innovation that has enabled it to sustain, for over 200 years, economic growth rates far beyond anything previously experienced in human history. Yet past success does not guarantee the future. The globalised economy that facilitates migration also demands economic competitiveness that can only be achieved by sustained innovation. In recent history the USA has outperformed the EU on innovation, even if it turns out that some of the Member States are world-beaters in their fields. Innovation holds the key to Europe's competitiveness and hence to its ability to create the jobs it needs and to generate the flow of resources to meet its needs.

Innovation results from the encounter of a perceived economic opportunity with a technical solution capable of satisfying it. It depends on the interaction of entrepreneurial instinct and technical know-how. Neither is enough on its own. Either/or is not enough. Both/and is a necessary condition for innovation. Even this is not sufficient. The conditions to enable successful commercialisation (access to market, sources of capital, skilled labour and management, a favourable intellectual property regime...) must also be present if innovation is to succeed. Even then, commercial success is not guaranteed.

Yet a double challenge confronts the economy in delivering that encounter of the entrepreneurial and the technical, which is sine qua non for innovation.

Markets are normally enabled to clear by the information that brings supply into contact with demand. But those who believe they hold a unique insight into economic opportunities and those with unique technical know-how are often reluctant to put their insight on display, because by doing so they risk losing it. One of the central issues of innovation policy is how to help that encounter come about.

Further, breakthrough innovative encounters between economic opportunity and technical solution most often happen on the interface between existing disciplines or fields of knowledge, in the gaps between fields of research, or on the frontiers of different cultural and intellectual groupings. Existing paths are usually too well-trodden to yield dramatic breakthroughs. It is on the frontiers and interfaces and in the gaps and spaces that the surprising encounters are most often to be found.

EDUCATION AND INNOVATION

Education can make a crucial contribution to a creative and innovative society.

Innovators need to be open to surprising and potentially rewarding encounters. They need readiness to seek them in unfamiliar territory; and to incorporate unusual wisdom. In turn, this requires an adventurous and self-confident mindset, with the competence to adapt. Such a mindset and such competence can be learned and it can be supported by an appropriate education system.

One of the most potent instruments in the support of the creative, innovative mindset is a culture of lifelong learning, which prepares the mind and the personality to be receptive to new ideas and to surprising shifts in thinking and affirms those who are open to them.

EDUCATION, MIGRATION AND INNOVATION FOR SUSTAINABILITY

Herein lies an interesting perspective for the EU. For if migration will certainly challenge the EU at many levels, including in the education system, it will also offer a rich vein of new mindsets and approaches which, if they can be successfully mobilised, will offer great opportunities for new interfaces and frontiers on which to make innovative encounters.

Thus migration offers both challenge and opportunity.

Migration is already challenging the education system severely and in the future will do so still more. That is why the Commission has prepared a Green Paper on the issues involved. If the education system is not resourced, or fails to rise to this challenge, the consequences could be very serious.

But if the education system can enable migrants to interact constructively and confidently with existing communities (which implies integration in two directions, not just one) then the possibility of liberating new innovative encounter is real.

This is greatly to be hoped for. Innovation has to be part at least of the solution to the material, and even the non-material, issues that confront the EU.

Thus the Lisbon goals of jobs and growth for Europe depend on innovation, as does sustainable development.

Innovation is not just material. It has potential in all fields. Innovation in education has to be part of the package that enables the EU to handle migration in a way that turns out to be sustainable.

Jan Pronk

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European Union and World Sustainable Development

PERSONAL LIFE LESSONS CONCERNING THE EU

Let me start by setting my understanding of European integration in the context of my personal evolution. I am a European, who was educated after the Second World War and saw the European integration as a peace project. The general idea was that reconciliation and sustainable peace could take place thanks to the cooperation in the field of energy, food and agriculture, widening to the economy as a whole and embracing such sectors as financial services and environment. This cooperation would bind the countries together and lead to reconciliation and peace. However, witnessing the power politics of the bigger countries in Europe at the beginning of 1970s, I was critical and hesitant about European foreign policy integration. But I was wrong. I have learned couple of life lessons.

First, the effectiveness of a common step on the world scene by the EU as a whole is much greater than the effectiveness of steps taken by the individual countries. Second, it is obvious now that the main problems that are threatening us are of a global character and it is physically impossible to address issues such as climate change, international security, and problems resulting from migration on just on a national level. We have to cooperate. Third, the model of decision-making in the EU is based on the combination

of meetings of national and European politicians, the Commission and other bodies and institutions. This provides a guarantee that the decisions taken at the political level can no more be paralyzed by a disagreement of one country. Once a decision has been taken, its implementation is guaranteed. Fourth, by traveling around the world I have learned that – in Africa, Middle East, Latin America, and Asia – Europe is seen in a somewhat different light than the other big players: powerful, but less powerful in a way, a bit more democratic, a bit more oriented towards care for people and human rights. These are the reasons why a common European view concerning international affairs is worthwhile and worth to be striving for. I have become a strong supporter of the common European policy in international relations in the matters of peace and development as well as sustainable development.

THE EU AND THE TRUTH ABOUT DEVELOPMENT

As we have heard during the conference, the EU certainly has a number of positive results in the field of development. But there is no reason to congratulate ourselves for what we have achieved. The EU is the biggest aid donor, but we promised in 1960 to devote one percent of our national income to developing assistance and we transferred it to 0.7 percent target in 1971. Our protectionist agricultural policy has been threatening many African farmers in the countryside for decades. We have one-sided policies that have consequences across the Mediterranean. I was responsible for world climate negotiations for couple of years. Some speakers were optimistic about the state of affairs but we have to face that we have lost a couple of years between 2002 and 2007 and our optimism now is based on the development of the last couple of months. It is far from certain that we are – the EU as a whole – going to meet the Kyoto targets. It is true that since the early 1950s, the EU has become more sustainable socially, economically and environmentally; at the same time the EU has become more sustainable also by exporting emission, poverty and pollution to other parts of the world.

Already in 1961, when launching the first development decade, the UN Secretary General said that sustainable development is only possible when there is no sustainable inequality. We have to be realistic – we are not on track as far as the Millennium Development Goals are concerned, although we have to meet them. For example, the Agenda 21 agreed at the 1992 Rio Conference has not been implemented. We did not use the unprecedented economic growth of the 1990s to fight poverty. There is stagnation in poverty eradication. The number of people without access to water or access to sanitation (with the obvious major consequences for hygiene and health) has not dropped and still affects 2.2 billion people in the world. The child and maternal mortality remain extremely high.

The persistence of poverty and inequality has been built into the global system as a whole. Since the end of World War II, Europe has gone through a period of sustained economic growth and stability. This was different from the ninety thirties, a period of crisis and mass unemployment. After 1945 the European middle class was willing to build a society with a fair degree of equality so that poor people could work, use their purchasing power to buy, contribute to growth and could become an actor of stability rather than a threat to security. However, Europe has failed to apply this model to the world as a whole. In a world wide perspective the situation is rather reverse. The poor are out of sight and are not seen as a factor of stability and more welfare. The poor are neglected. Poverty reduction, which is still based on rather neo-liberal policies, is seen as too costly and the poor are seen as a cost factor, not as a potential asset to the world society. That is a moral issue. If we really want the EU to contribute to the world sustainable development, we have to be aware of and change this moral aspect.

Moreover, the poor are not just out of sight, but they are seen as a threat. The world middle class, which includes the major part of the population of Europe, has been competing with the poor for resources and for access. The world middle class is winning the battle because it has access to more fertile soils, to economically more promising areas, better facilities for water and energy, as well as to better settlement areas, which are more secure and less vulnerable. It has more access to public services in education and health, better access to political power and funds. It has deprived the poor of the access to the global system itself. The poor have not only been thought of as dispensable but they have been disinherited and driven away from the scarce resources.

In many countries of Africa, Asia, Latin America and the Middle East the middle class and the regimes are neglecting and excluding the poor. However, Europe shares a responsibility as well. Our protectionist trade policies, our common agricultural policy, our large scale exploitation of vulnerable fishing grounds, our greenhouse gas emissions, our political support to non-democratic regimes, our restrictive immigration policies serve our interests and affect the poor elsewhere.

The consequences are an increasing inequality since the end of the Cold War and a widening gap between the rich and the poor, world wide as well as within many countries. It is important to change this, and Europe should lead the way

THREE CHALLENGES CONCERNING EUROPE AND DEVELOPMENT

I give you three main challenges concerning Europe and development. First, let's be aware of the facts. The reality of misery has been put out of sight by statistics. For instance the poverty line of one dollar a day, which we consider to be decent, is an artificial construction. What kind of life can you live on one dollar a day? The reports of the World Bank told us that the poverty is declining, but poverty in terms of access to lifelines of sustainability (like water, sanitation, health etc.) is stagnating and inequality is on the rise. Second, if this is true then the main challenge is to combat inequalities in access, income, wealth, means to live, survive and live a meaningful life.

Third, if we really want to reach sustainability and less inequality, then the middle class in all countries should have to step backwards in lifestyle, in the use of resources, but also in power. We have to reassess all our existing agreements, existing institution procedures and guidelines. It is not only a matter of giving more to development, but also a matter of dismantling all negative aspects of our Common Agricultural Policy, banning all protectionist trade policies, writing off debts, guaranteeing transparency of all payments of resources which we are importing from developing countries, and stopping support to regimes that oppress the poor. For reaching sustainability we also have to decriminalize migration and change "our fortress Europe" approach. We are already moving in this direction, but still very slowly. Furthermore, we have to be extremely credible in meeting the Kyoto targets. The stock of CO_2 in the world atmosphere has been built up by our Western-industrialized emissions from the past. We have to make major steps first get and then we can ask Chinese, Indians and the others to take several steps. Without doing this we lose our credibility and we cannot expect them to change their policies.

THE SOCIETY TODAY: DS VS. CS

To conclude, I would like to remind us of "an inconvenient truth" mentioned by Al Gore, when he wrote about four Ds related to climate in his book*: denial, doubt, disinformation* and *delay*. Al Gore meant the *denial* of the phenomena of climate change, the *doubts* about the causes, *disinformation* about the facts and the *delay* of action. But we can mention additional Ds: the mutual *distrust* among the countries about actions to be taken, *despair* about the inaction among people and civil society; and a kind of *doom feeling* that our actions will not help anyway. These are all together seven Ds: *denial, doubt, disinformation, delay, distrust, despair* and *doom*.

These seven Ds are not merely relevant in the context of climate change, but also for poverty. We are *denying* that there is poverty, we *doubt* about the causes or their faults. We tend to believe that the poor people fight among each other that they have too high population growth and it is their entire fault. We *disinform* about the facts. The one dollar a day guideline is a good example of that. It all has resulted in a *delay* of action, which led to a mutual *distrust* among countries and among classes within countries. There is a lot of *despair* among people who do not see any perspective for themselves (in Africa for instance). In our own countries there are many media and politicians that are preaching *doom* by saying that development activities and cooperation does not work anyway. The seven Ds (*denial, doubt, disinformation, delay, distrust, despair* and *doom*) apply for climate as well as poverty and have consequences for sustainability.

How to deal with the seven Ds politically? The answer is by seven Cs: *consistence, concretization, consciousness, cooperation, concrete action, commitment* and *creativity*. I mean by this the *consistence* of persistence and search for the truth; *concretization* and convincing others and yourself with facts; *consciousness* about the needs of poor people in completely different circumstances than your own society; *cooperation* with all parties including those that do not need to share our European views and of whom we are sometimes afraid or think we should be afraid; *concrete action* in order to counter further delays; *commitment* to the good cause of the Earth and its people; and last but not least *creativity* in order to counter feelings of doom. I believe that this is the task for Europe. Europe has carried out such task when we were confronted with the doom after the Second World War. Now we should follow that up in order to contribute to the world sustainable development.

Manuel Porto

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Globalisation and Sustainable Development

INTRODUCTION

The 21st century has new challenges, to which the European Union must give the right answers. In particular, we must have in mind a new map of the world, with globalisation and an increasing role of previously not so strong countries. It is now clear for everybody that in this century we will have a multi-polar world, in which, besides the "triade" (European Union, United States of America and Japan), in particular the roles of the BRIC´s (Brazil, Russia, India and China) will be also particularly important.

Simultaneously, since the 20th century an increasing attention is being given to the need to have sustainable processes of development, having especially in mind the environmental problems. After the earlier worries about the sufficiency of the world resources to feed an increasing world population, attention is being given to the "gaspillage" caused by the countries in their processes of development.

With Europe giving the right steps in this field, one last question is to know which attitude should be taken by us in relation to the countries which do not follow the "rules of the

game": having in mind the world conditions, the welfare of the citizens of those countries and the interests of the EU (including our workers and our entrepreneurs), where stricter rules are followed.

A NEW OR RENEWED MAP OF THE WORLD

There are no accurate numbers, but it is interesting to remember that in the 15th century countries of ASEA, in particular China and India, were among the most developed countries of the world([1]): with quite advanced cultural standards and strong and diversified economies: producing not only primary products, also manufacturing with the highest quality at the time (for example ceramics and textile).

It was of course the knowledge of these circumstances and of the quality of these products (not only spices, and in no case raw materials), which attracted the interest of the Europeans, purposed to reach India (in one second moment China) either by the east (as Vasco da Gama did) or by the west (as Cristóvão Colombo attempted, thinking that the American territory was territory of India...).

Beginning with the Portuguese navigators([2]), followed by the navigators of other European countries, for five centuries Europe had a leading role, shared only in the 20th century. Before the 15th century connections between the continents were dangerous and expensive, therefore scarce. The improvement in the connections by sea was therefore the point of departure for globalisation giving to the Europeans the opportunity to reach all the other continents in much better conditions. But it remains difficult to explain how we could keep supremacy all over the world for four centuries: on territories that were not only much more populated, they were also richer than Europe([3]).

([1]) Recent descriptions of this situation can be seen in Sen (2005) and in Baru (2006), showing as well the interrelationship and good neighbourhood that for centuries existed between China and India.

([2]) The contribution of Portugal for the openness of the world economy is well expressed in the titles (and in the contents) of two books: Charles Vindt, *Globalisation, from Vasco da Gama to Bill Gates* (1999) and Martin Page, *The First Global Village. How Portugal changed the World* (2002).

([3]) There is no exact explanation why the European leadership lasted so long even when having in mind the usual arguments of better technology (in particular in navigation) or better weapons, because even these of course could be imitated without difficulty by so advanced Asian countries. We should remember that still in 1820 China had 28.7 % of world GDP and India 13.4 % (so, the two together 42.1 %), when (in what were later on the territories of these countries) France had 5.5 %, the United Kingdom 5.0 %, Japan 3.1 %, Germany 2.4 %, Spain 1.9 % and the United States 1.8 % (see Maddison, 1995, Annex C; or also Dan, 2006).

In the 20th century there was already a different world, a bipolar or tri-polar world, with special relevance for the coming up of the USA, both as a political and as an economic world power, since the beginning of the century.

In the political arena, mainly after the Second World War there was a bipolar world, with the "cold war" between capitalism and communism: the capitalist "bloc" led by the United States and the communist "bloc" by the Soviet Union. In the economic arena, disputing the world markets, we have had a tripolar world, with an overall supremacy of the "triade".

In the 21st century we will however have a multi-polar world: in which the "triade" will remain, but in which, together with new members, we will have again China and India as world powers(4).

Looking at the IMF forecasts, in 2008 China will grow 10% and India 8.4%; going on with a sustained growth process, with similar figures since more than 10 years (as an effect of the opening of the economies, by Deng Xiao Ping in China and Manhoban Singh in India).

A CLEAR APPROXIMATION OF THE STRUCTURES OF THE ECONOMIES

The traditional pattern of international trade, in particular between countries of different degrees of development, was trade of different finished goods, all the chain of production being in the same country (or only raw materials being imported).

The approximation of the countries, with their development, an easier access to technological improvements, a general qualification of the people (indeed with important differences between the countries) and of course also better transports and communications, led in the last decades to a new pattern of comparative advantage and trade.

Many less developed countries are no more specialized only in the exports of raw materials and primary products; in several cases they have also developed diversified manufacturing products (in several cases, they are leaving the "category" of less developed countries...). With this evolution, we see an increasing number of countries exporting and importing products of the same sectors.

(4) On some prospects see for example Dicken (2003) and Gnesotto and Grevi (2007-8).

A specific consequence of this evolution is the pressure on the demand for energy, in particular oil, and for some raw materials, made not only by the previously industrialized counties. One main reason for the actual high increases of the prices of these goods is indeed the demand made by China and, into a lower extent, by India.

A FORESEEABLE GREATER OPENNESS OF THE ECONOMIES, DESPITE DIFFICULTIES IN THE WTO NEGOTIATIONS

Even with the acknowledgement of the better arguments in favour of free trade and of free economy, according to the theory and according to the experience, we should always expect that in periods of difficulties protectionist temptations arise again.

It is interesting to see nowadays a clear change of attitude in the more developed countries relatively to free trade in manufacturing and in services. Traditionally they have been protectionist for agricultural products, three main examples being the countries of the "triade": the European Union, with the Common Agricultural Policy, the United States, with enormous public subsidies (of course now – not during the Uruguay Round – also contested by many less developed countries) and Japan, with extremely strong protectionist measures. Already in manufacturing and in the provision of services the industrialized countries were generally in favour of the free trade.

A clear change of attitude can be noticed nowadays, e.g. with delocalisations to and outsourcing from less developed countries. But both in Europe and in the United States the institutions and most of the economists remain defending free trade, of course together with the required measures for the restructuring of the sectors, the promotion of competitive sectors and compensations for the people, sectors and regions harmed with globalisation.([5])

Anyway, it is clear that the movement of openness will go on, despite delays and difficulties in the negotiations of the World Trade Organization.

Of course, each country or bloc (the case of the EU, necessarily with a common position, being a customs union) will always try to have the highest gains and the lowest losses, even if these are only short run losses, in many cases trying to postpone the effects. But the overall gains of trade finally lead the countries to accept the negotiations.

([5]) On a recent dispute see Stiglitz (2002), Samuelson (2004), on one side, and Bhagwati (2004) and Bhagwati, Panagarya and Srinivasan (2004), on the other side (see also Kirkgaard 2005 and Fontagné 2005).

In particular with realism, nobody can expect that the other countries accept without retaliation our protectionist measures. Some protectionist defenders seem to have a "dream" of no reaction: their home countries would establish or increase barriers, while the others, "friendly", would remain with full open borders...

This is something that Europe should have particularly in mind, having usually a surplus in the balance of trade (it is not the case of the United States, with a big deficit).([6]) According to the most recent data, the Euro area had in the last year a trade surplus of 1.5 billion euros, with 113 billion euros of exports and 111.5 euros of imports.

Of course, a general retaliation of the other countries of the world would at the end have more costs than benefits for the Europeans.

It should finally be stressed that a revival of protectionism would perhaps be possible for commodities, with limitations (even prohibitions) in the borders of the countries. This is however a possibility not available for many services, in their immateriality, with new technologies of communication, without difficulties and very low costs of transmission: services being provided instantaneously in any point of the world.

THE POLICIES TO BE FOLLOWED

We should anyway understand the present worries in the more developed countries: in Europe, in the United States and in the other industrialized countries (the case of Japan), with salaries much higher than the salaries of now extremely competitive less developed countries.

In the European case (of course also in the other cases), we can admit and perhaps agree with the attempt to have some postponements, giving time to prepare our agriculture, our industry and our services to a worldwide competition. But these delays can be admitted only if it is not possible to follow immediately the right policies (first best policies), perhaps with the help of the European Union,([7]) and if after some time the sectors become competitive. If it is not the case, we are delaying the possibility for the consumers

([6]) Not only in commodities, also in services Europe is one main world actor, with surpluses, as the first exporter, with 27.7 % of the total, and the first importer of the world, with 25.0 % of the total (the USA having 20.2 % of global trade of services).

([7]) We can remember the delay in the openness of the borders for all textile and clothing, with the negotiations of the Uruguay Round, and the specific program approved by the European Commission to help the restructuration of the Portuguese industry.

to have better and cheaper goods, with important social benefits, and of having a greater competitiveness in our productive sectors.

Moreover, as is always being remembered, if adjustments are justified, in principle they should be made with direct interventions, according to the teaching of the theory of domestic divergences.

The way to follow is to compete in a globalised world, according to the lessons of theory and of experience, removing imperfections of the market and creating the required external economies (see for example the references in Porto, 2001(4), pp.176-94, 251-7 and 342ss.).

In a synthetic way, it is possible to stress what must be done in main areas:

- It is necessary to have a non-bureaucratic framework, with a light and efficient state (more purposed to have a regulatory role).

- In a non bureaucratic framework, a strong society must be a society in which everybody, individually or through different kinds of entities, can contribute with new initiatives. Only in this way many people can develop talents, fulfilling ambitions and projects.

- Thirdly, more steps should be taken to build clearer, broader and stronger single markets. Even accepting the general advantages of world free trade, it is not realistic to think that it should be reached soon. "Regional" integrations, including several countries, can be the best ways to follow.

- We must have a realistic social model, primarily purposed to the creation of employments (see for example Tharakan, 2003, Pestieu, 2006 and European Parliament, 2006).

- Finally, it is of the utmost importance to have high qualification of the people. Even with all evolutions in technology, management, etc. (or because of them...), it remains clear that the man remains the main factor of development.

THE ATTENTION TO BE GIVEN TO THE ENVIRONMENTAL PROBLEMS

Together with the attention to be given to the above mentioned worries and policies, in the 21st century special attention must be given to the environmental problems, in the strategies to be followed.

For a long time environmental problems were thought to be localised, causing isolated damage, but without being felt that there could be wider implications. It was believed that nature was abundant and able to regenerate itself, without the actions of man bringing the permanence of resources into doubt.

People attained a greater awareness of the issues in what can be considered a starting point of environmental policy: the 1962 Stockholm Conference, in the year in which the famous report of the Rome Club about "limits to growth" was published.

In view of the destruction and scarcity of resources, it began to be feared that the current growth levels could not be maintained. Given a "trade-off" of this nature, understandably there should be reservations about growth that jeopardises the future. A "zero rate of growth" was then suggested.

It became then acknowledged that the environment is not something that is everlasting, justifying much more attention dedicated to the issue. Having in mind the following generations, a Hindu proverb from Kashmir could be quoted: "we only ask to borrow the world from our children – one day we will have to give it back" (cfr. Foueré, 1990, p.44 and Aragão, 1997, p.31).

But experience has already shown that in general the aims of growth and environmental protection do not oppose each other. If it was so, extremely difficult choices had to be made. But, on the contrary, an efficient and sustained economic policy (e.g. in the medium and long term) is one which duly considers the protection and promotion of resources and the environmental values (see for example Tietenberg, 2006 and Vivien, 2008).

Many examples can be given, from manufacturing equipment to aircrafts. More modern machinery has much lower levels of pollution and much better performances; and the more recent aircrafts are less noisy and have lower levels of consumption, becoming therefore more profitable for the flying companies.

On the other hand, advances in this field lead to new demands to the "environmental industries", creating new and in many cases well paid jobs.

THE ATTITUDE TOWARD THIRD COUNTRIES

The EU is a very good world example, with the steps given to guarantee the preservation and promotion of environment. It was a subject not considered in the Treaty of Rome in 1957, but since then very relevant steps were indeed taken.

At the institutional level the inclusion of a chapter on environment in the EEC Treaty (through the Single European Act) should be mentioned, which was afterwards reinforced by the Treaty of Maastricht. The purpose of having a plausible and desirable *sustainable development* was strongly outlined in the 5th Action Program (in similar terms to those that had already been defined by the World Commission on Environment and Development): a development that "satisfies the needs of the present without putting at risk the capacity of future generations to satisfy their needs." It is indeed recognised today that, given that the implementation of correct policies is within our possibilities, the idea that respecting the environment is incompatible with a healthy economy is wrong (for example Tietenberg 2006 or Vivien 2008).

This is the line of reasoning affirmed by the European Commission (1997), concluding that "il existe même un certain nombre de signes convaincants qui tendent à montrer que la croissance économique et une saine politique de l´environnement sont un atout l´une pour l´autre".

However, the efforts to preserve and promote the environment can not be isolated efforts, taken individually by each country: as the effects of pollution are not restricted to one country or to one continent. It can indeed be said that long before a "common market in goods" there was already a "common market in terms of pollution" (Moussis, 2007, p. 331); but what we have now is not only a common "regional" market, it is a world market of pollution, for example with the CO2 emissions.

All efforts should therefore be made to have a world commitment to environmental preservation and promotion. In particular, relatively to the up to now less developed countries, two lines of intervention should be followed:

One first line is the promotion of technical and financial cooperation. Even with the acknowledgment of the advantages of better ways for environmental protection and promotion, it can happen that some countries have not yet the required technical conditions.

Cooperation agreements can therefore be the way to follow, with EU experts going to those countries or with their citizens (students, experts, entrepreneurs, etc.) improving their knowledge in our countries.

Even with this expertise in many cases financial help is required. Within the European Union one main target of the Cohesion Fund is to help to improve the environmental conditions. Similar possibilities should be extended to third world countries.

One second way, perhaps not so easily accepted, is to force third countries to follow the "rules of the game", fulfilling environmental conditions.

It is not *environmental dumping*, if a country with lower environmental requirements can for this reason have lower costs and dispute other markets with lower prices. Dumping exists only when a country exports with a price below the internal price. But even if it is also the internal price, it is a lower price because minimal environmental requirements are not fulfilled. It is therefore a case of unfair competition.

It is a situation with which the citizens of those countries are harmed. The requirement made by us, on the accomplishment of right production procedures, is therefore a right which we should use, not only to protect our workers and our entrepreneurs, also as a way of forcing those countries to have rules benefiting their citizens. There are indeed reasons to have a strict policy, if possible in the framework of the World Trade Organization.

In a softer but surer way, for all reasons we should contribute to the reinforcement of civil society all over the world. It is clear that only a strong civil society can guarantee developments in the right direction: in this case, with everybody being aware of the costs of pollution, harming the people's health. It is with this inner motivation for change that groups and individuals of the civil society can bring what is required for a successful course towards a sustainable development.

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José-Maria Gil-Robles

Former President of the European Parliament; President of the Association of Former Members of the European Parliament; President of the European University Council for the Jean Monnet Programme; Honorary President of the European Movement; Jean Monnet Chair at the Universidad Complutense de Madrid

The Strategic Importance of the Jean Monnet Network

The preceding pages of this book are a clear testimony of the intellectually wealth of Jean Monnet reflection activities in terms of the level and number of innovative ideas and sound policy suggestions. Few themes are more pressing than the topic of this book. It is not a surprise therefore that the European Commission's Jean Monnet community decided to devote its annual gathering to the European Union and world sustainable development. In recent years, Jean Monnet Conferences and Thematic Groups have tackled all main priorities of European integration. **Jean Monnet Conferences in 2002 and 2004 provided the forum to launch the European Neighbourhood Policy. It was through a series of Jean Monnet Conferences, starting in 2002, that the Commission began its reflection on the dialogue between peoples and cultures.** The 2008 European Year of Intercultural Dialogue is a direct result of the work by the Jean Monnet community. It is logical that the main international activity in the framework of this Year, the Conference on *Intercultural Dialogue in a Greater Europe: the European Union and the Balkans* that is held in Zagreb in June 2008 is again taking place with the Jean Monnet framework. **With respect to the EU's constitutional reform, I had the pleasure of chairing a Jean Monnet Thematic Group that has, between 2004 and 2007, made several constructive suggestions to President Barroso. Its work culminated in the Seminar on the EU's institutional reform, in September 2007, one month before the finalisation of the Treaty of Lisbon.**

In addition to these high-level reflection activities, I believe that the Jean Monnet network is of strategic importance to the European Union in three respects: (1) in connecting Europe to the citizens; (2) in increasing the European Union's visibility in the world; and (3) in acting as a powerful intellectual think thank for the institutions of the European Union.

CONNECTING EUROPE TO THE CITIZENS

One of the European Union's fundamental objectives is to make EU policies understandable to the citizens. The European Commission's Plan D and new Communication Strategy are evidence of the priority that is attached to this issue. The challenge is to improve the citizens' knowledge about the EU and interest in the EU; to connect Europe to the citizens. This is a goal that can only be attained if the European Union in general, and the European Commission in particular, manage to create a fruitful partnership with local authorities, civil society, the media and, of course, the educators: professors, teachers and researchers.

Through their daily activities, the Jean Monnet professors are working at the heart of the Commission's priority of connecting Europe to the citizens and Jean Monnet projects are specifically designed to foster additional knowledge, awareness and well-informed debate about the European integration process. In view of the independence and critical expertise of Jean Monnet professors, it is hard to think of better qualified and more credible multipliers of knowledge about the European Union and its policies.

Several Jean Monnet Chairs are actively developing interesting activities that aim in particular at fostering citizens' general awareness about Europe. I am thinking of such examples as the *scuola di formazione per il cittadino europeo* by the *Università Politecnica delle Marche* and the Jean Monnet Summer School that was organised by the *Università degli Studi di Trento*, entitled "Becoming European: Citizenship and Identity in Europe". In view of the continuing need for further civic education and for dialogue between experts and civil society on European integration, the relevance of the Jean Monnet Programme is only likely to increase.

EUROPE'S VISIBILITY IN THE WORLD

Another key aim of the European Union is to stimulate Europe's visibility in the world. Europe not only needs to cultivate a strong voice of its own, it must also be understood and recognised as an entity on its own. In a special Communication on this subject, the European Commission has emphasised the need to better explain and mobilise public

support for the EU's external activities, both in third countries and within the EU. More in particular, the Commission is notably proposing:

- to reinforce "public diplomacy" in third countries to promote EU policies and models and to increase the visibility of the EU's external action, development assistance and disaster relief; and

- to promote the involvement of citizens within the public debates on EU external policy.

Since Jean Monnet professors are present in 60 countries on the 5 continents, they are already playing the role of critical and independent goodwill ambassadors. Several projects that have been co-financed by the Jean Monnet Programme treat specifically with the EU's visibility in the world. Every year, Jean Monnet Conferences and Seminars are taking place on such topics as "Raising Public Awareness about the EU" or "The image of Europe in the Mediterranean Partnership for education". Several Jean Monnet projects also deal with "The EU as a model and reference for regional integration: a comparative perspective and lessons for the Americas" or "The EU contribution to social engineering and peace promotion in the Middle East". A particularly interesting Jean Monnet Multilateral Research Group, coordinated by the Universities of Canterbury in New Zealand, has done exemplary work in investigating public perceptions and media representations of the European Union in the Asia-Pacific region. In light of the Union's expanding international agenda, it is only logical that there will be a continuing need for Jean Monnet professors as multipliers of knowledge and awareness about the European Union in third countries.

THINK THANK FOR THE EUROPEAN UNION INSTITUTIONS

Following the 2008 selection, no less than 2,000 Jean Monnet professors in European integration are active at 680 universities in 60 countries on the five continents. To 124 of these universities, the European Commission has awarded a Jean Monnet Centre of Excellence. The Jean Monnet community includes fields of expertise touching all areas of European Union competence.

While the Union is benefiting from its insights and advice on the occasion of the Jean Monnet Conferences and Thematic Groups, I could well imagine a more structural role for the Jean Monnet community as a think tank to the institutions of the European Union. With a database including 2000 committed experts, covering a large range of scientific

disciplines, I would like to propose the Jean Monnet community as a prime source for academically sound and well-argued policy advice to the institutions.

CONCLUSION

Important challenges lay ahead for the European Union. The topics dealt with in this book – climate change, energy security, poverty, migration and sustainable development – are perfect examples of the tough questions that are on the Union's current policy agenda. In this context, the Jean Monnet community constitutes a key strategic asset for the Union. It is by developing sound policies that are grounded on solid expertise that the Union will be able to successfully overcome the challenges it is facing. The Jean Monnet professors have an essential role to play in this framework. I cannot think of a more able and committed community of independent advisers and multipliers of knowledge to assist the Union in its difficult tasks.

Annexes

Programme of the Global Jean Monnet Conference 2007
"The European Union and World Sustainable Development"
in English

Programme de la conférence mondiale Jean Monnet 2007
"L'Union européenne et le développement durable global"
en français

PROGRAMME OF THE GLOBAL JEAN MONNET CONFERENCE 2007

"The European Union and World Sustainable Development"

Brussels, 5th – 6th November 2007
European Commission – DG EAC/Jean Monnet Programme
Charlemagne Building Room "Alcide de Gasperi (S3)"

PROGRAMME

Monday, 5th November 2007

08:00	Registration of the participants
09:00 – 09:50	**OFFICIAL OPENING SESSION**
Moderator:	Prof. **José-Maria Gil Robles**, Former President of the European Parliament; President of the former Members of the European Parliament ; President of the European University Council for the Jean Monnet Programme; Honorary President of the European Movement; Jean Monnet Chair at the Universidad Complutense de Madrid
09:05	Mr. **Ján Figel'**, Member of the European Commission in charge of Education, Training, Culture and Youth
09:20	**KEYNOTE SPEECH** Prof. **Julia Marton-Lefèvre**, Director General of the World Conservation Union; former Rector of the UN-mandated University for Peace; former Executive Director of LEAD (Leadership for Environment and Development International); former Executive Director of the International Council for Science
SESSION 1: 09:50 – 12:20	**Global environmental governance and the European Union: climate change, water and sustainable development**
Chairperson:	Dr. **Gerd Leipold**, Executive Director of Greenpeace International
Lead interventions:	Prof. **Malin Falkenmark**, Professor in Applied and International Hydrology and Senior Scientist at the Stockholm International Water Institute
	Prof. **Joyeeta Gupt**a, Professor of Policy Law of Water Resources and Environment at the UNESCO-IHE Institute for Water Education, Delft; Professor of Climate Change Law and Policy and Head of the International Environmental Governance Programme at the Vrije Universiteit Amsterdam

	Prof. **Sebastian Oberthür**, Academic Director of the Jean Monnet Centre of Excellence at the Vrije Universiteit Brussel; member of the Compliance Committee of the Kyoto Protocol to the UN Framework Convention on Climate Change
11:30 – 12:20	Debate

INTRODUCTION TO THE EUROPEAN COMMISSION PRESIDENT'S INTERVENTION

12:20	Mr. **David White**, Director, Directorate General Education and culture
	Cooperation between the Jean Monnet network and the European Commission

EUROPEAN COMMISSION PRESIDENT'S INTERVENTION

12:30	Mr. **José Manuel Barroso**, President of the European Commission

LUNCH

13:00 – 14:30	Standing Lunch at the Charlemagne Building

SESSION 2: 14:30 – 17:30	**Sustainable energy, security and the European Union in a global context**
Chairperson:	Prof. **Thomas B. Johansson**, Director of International Institute for Industrial Environmental Economics at the University of Lund; UNESCO Chair in Education for Sustainable Development; Co-chair of the Global Network on Energy for Sustainable Development; former Director of United Nations Development Programme's Energy and Atmosphere Programme Dr
Lead interventions:	Prof. **Jean-Marie Chevalier**, Professor and Director of the Centre de Géopolitique de l'Energie et des Matières Premières at the Université Paris Dauphine
	Prof. **Thomas W. Wälde**, Jean Monnet Chair, Centre for Energy, Petroleum and Mineral Law and Policy University of Dundee, former United Nations Interregional Adviser on International Investment Policy and Petroleum/Mineral Legislation
16:30 – 17:30	**Debate**

DINNER

19:30	Cocktail and official dinner at the Hotel Métropole

Tuesday, 6th November 2007

SESSION 3: 9.30 – 11:30	**Demography, poverty, migration and sustainable development challenges**
Chairperson:	Prof. **Sylvie Faucheux**, President of the Université de Versailles Saint Quentin en Yvelines; President of the Conférence des Présidents d'Universités d'Ile de France; former President of the European Society for Ecological Economics
Lead interventions:	Ms. **Joséphine Ouédraogo**, Executive Secretary, Environmental Development Action in the Third World, Dakar, Senegal
	Mr. **Klaus Rudischhauser**, Director, Directorate General Development
10:50 – 11:30	Debate
11:30 – 12:30	**CLOSING SESSION SPEECHES**
11:30	Mrs. **Odile Quintin**, Director General, Directorate General Education and culture
11:45	Prof. **Jan Pronk**, former Special Representative of the Secretary General of the United Nations in Sudan; former Special Envoy of the Secretary General of the United Nations for the World Summit on Sustainable Development; former Minister for Development Cooperation and Minister of Environment, the Netherlands; Professor of Theory and Practice of International Development, Institute of Social Studies, The Hague
2:15	Prof. **Manuel Porto**, President ECSA-World, Jean Monnet Chair at the University of Coimbra, former Vice-chairman of the Committee on budgets of the European Parliament, former dean of the Law Faculty at the University of Coimbra
LUNCH	
12:30 – 14:00	Standing Lunch at the Charlemagne Building

PROGRAMME DE LA CONFÉRENCE MONDIALE JEAN MONNET 2007

"L'Union européenne et le développement durable global"

Bruxelles, 5 – 6 novembre 2007
Commission européenne – DG EAC/Jean Monnet Programme
Bâtiment Charlemagne – salle "Alcide de Gasperi (S3)"

PROGRAMME

lundi 5 novembre 2007

8h00	Accueil des participants
09h00 – 09h50	**SÉANCE D'OUVERTURE OFFICIELLE**
Modérateur :	Prof. **José-Maria Gil Robles**, Ancien Président du Parlement européen ; Président de l'Association des anciens Députés du Parlement européen ; Président du Conseil universitaire européen pour le Programme Jean Monnet ; Président honoraire du Mouvement européen ; Chaire Jean Monnet à l'Universidad Complutense de Madrid.
9h05	M. **Ján Figel'**, Membre de la Commission européenne, en charge de l'éducation, la formation, la culture et la jeunesse.
9h20	**OUVERTURE ACADÉMIQUE** Prof. **Julia Marton-Lefèvre**, Directeur Général de l'Union Mondiale pour la Nature ; Ancien Recteur de l'Université pour la Paix, mandatée par les Nations Unies ; Ancien Directeur Exécutif de LEAD (Leadership for Environment and Development International); Ancien Directeur exécutif du Conseil International pour la Science.
SÉANCE 1 : 09h50 – 12h20	**La gouvernance environnementale mondiale et l'Union Europeenne : changement climatique, eau et developpement durable**
Président :	Dr. **Gerd Leipold**, Directeur exécutif de Greenpeace International.
Orateurs :	Prof. **Malin Falkenmark**, Professeur d'Hydrologie Internationale et Appliquée et Senior Scientist à l'Institut International de l'Eau de Stockholm.
	Prof. **Joyeeta Gupta**, Professeur à l'Institut UNESCO-IHE pour l'éducation à l'eau, Delft; Professeur de droit et politique du changement climatique et Directrice du Programme de gouvernance climatique internationale à la *Vrije Universiteit Amsterdam*

Prof. **Sebastian Oberthür**, Directeur Académique du Centre d'Excellence Jean Monnet à la Vrije Universiteit de Bruxelles ; Membre du Comité de contrôle du respect des dispositions du Protocole de Kyoto à la Convention-Cadre des Nations Unies sur les changements climatiques.

11h30 – 12h20 Débat

INTRODUCTION A L'INTERVENTION DU PRESIDENT DE LA COMMISSION EUROPEENNE

12h20 M. **David White**, Directeur, Direction générale pour l'éducation et la culture.

Coopération entre le réseau Jean Monnet la Commission européenne

INTERVENTION DU PRESIDENT DE LA COMMISSION EUROPEENNE

12h30 M. **José Manuel Barroso**, Président de la Commission européenne.

LUNCH

13h00 – 14h30 Cocktail dans le Bâtiment Charlemagne

SÉANCE 2 : 14h30 – 17h30 **L'energie durable, la securite et l'Union Europeenne dans le contexte mondial**

Président : Prof. **Thomas B. Johansson**, Directeur de l'International Institute for Industrial Environmental Economics à l'Université de Lund ; Chaire UNESCO en Education pour le Développement durable ; Co-chair du Global Network on Energy for Sustainable Development ; ancien Directeur du Programme Energie et Atmosphère du Programme pour le développement des Nations Unies.

Orateurs : Prof. **Jean-Marie Chevalier**, Professeur et Directeur du Centre de Géopolitique de l'Energie et des Matières Premières à l'Université Paris Dauphine.

Prof. **Thomas W. Wälde**, Jean Monnet Chair, Centre pour le Droit et la Politique de l'Energie, du Pétrole et des Minéraux à l'Université de Dundee, ancien Conseiller interrégional des Nations Unies sur la politique d'investissement international et sur la législation du pétrole et des minéraux.

16h30 – 17h30 **Débat**

DÎNER

19h30 Réception et dîner officiel à l'Hôtel Métropole

Mardi 6 Novembre 2007

SÉANCE 3 : 9h30 – 11h30	**Demographie, pauvrete, migrations et enjeux du developpement durable**
Président :	Prof. **Sylvie Faucheux**, Président de l'Université de Versailles Saint Quentin en Yvelines ; Président de la Conférence des Présidents d'Universités d'Ile de France ; Ancien Président de la Société européenne pour l'Economie écologique
Orateurs :	Mme **Joséphine Ouédraogo**, Secrétaire Exécutif, Environnement et Développement du Tiers Monde, Dakar, Sénégal.
	M. **Klaus Rudischhauser**, Directeur, Direction Générale pour le Développement
10h50 – 11h30	Débat
11h30 – 12h30	**DISCOURS DE CLÔTURE**
11h30	Mme. **Odile Quintin**, Directeur général de la Direction générale de l'éducation et de la culture.
11h45	Prof. **Jan Pronk**, Ancien Représentant spécial du Secrétaire Général des Nations Unies au Soudan ; Ancien Envoyé spécial du Secrétaire Général des Nations Unies au Sommet mondial sur le développement durable ; Ancien Ministre de la Coopération pour le développement et Ministre de l'Environnement, Pays-Bas ; Professeur de Théorie et Pratique du Développement international à l'Institut des Sciences Sociales, La Hague.
12h15	Prof. **Manuel Porto**, Président de ECSA – Monde, Chaire Jean Monnet à l'Université de Coimbra, ancien Vice-président de la Commission des budgets du Parlement européen, ancien Doyen de la Faculté de Droit de l'Université de Coimbra
DÉJEUNER	
12h30 – 14h00	Cocktail dans le Bâtiment Charlemagne

European Commission
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La vision des leaders politique & académiques

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