

IDDRI



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ANNUAL REPORT 2010

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Project

The Institute for Sustainable Development and International Relations (IDDRI) is a Paris and Brussels based non-profit think tank. Its objective is to develop and share key knowledge and tools for analysing and shedding light on the strategic issues of sustainable development from a global perspective.

Given the rising stakes of the issues posed by climate change and biodiversity loss, IDDRI provides stakeholders with input for their reflection on global governance, and also participates in work on reframing development pathways. A special effort has been made to develop a partnership network with emerging countries to better

understand and share various perspectives on sustainable development issues and governance.

For more effective action, IDDRI operates with a network of partners from the private sector, academia, civil society and the public sector, not only in France and Europe but also internationally. As an independent think tank, IDDRI mobilises resources and expertise to disseminate the most relevant scientific ideas and research ahead of negotiations and decision-making processes. It applies a cross-cutting approach to its work, which focuses on five threads: global governance, climate change, biodiversity, urban fabric, and agriculture.

Institutional framework

IDDRI

Founded in 2001, IDDRI is a Foundation of public interest. The new statutes of the "Research Foundation Institute for Sustainable Development and International Relations", known as IDDRI (Institute for Sustainable Development and International Relations) were approved by the French Council of State on 4 November 2009.

Since 2007, two strategic partnerships structure IDDRI's activities: one with the University Sciences Po (see p. 38) and another with the Foundation for international development studies and research (FERDI) in the framework of the Development and global governance Initiative (IDGM), supported by the French Development Agency (see Box p. 30). A partnership with Columbia University is underway; it will complement the one with Sciences Po in the framework of the Alliance programme.

Board

IDDRI's board is made up of 15 administrators, divided into three constituencies:

Founding members (EDF, EpE, GDF Suez, Lafarge, Saint-Gobain, Veolia Environnement):
Françoise **Guichard**, GDF-Suez
Olivier **Luneau**, Lafarge

Claude **Nahon**, EDF
Jean-Pierre **Tardieu**, Institut Veolia Environnement
Claire **Tutenuit**, EpE

Ex officio members:

Ademe, represented by Dominique **Campana**
AFD, represented by Robert **Peccoud**
Cirad, represented by Patrick **Herbin**
CNRS, represented by Françoise **Gaill**
INRA, represented by Michel **Eddi**

Honorary members:

Michel **Griffon**
Jean-François **Soussana**
Jean **Jouzel**
Bruno **Latour**
Jean-Michel **Charpin**

Executive board

Jean **Jouzel**, Chair; Françoise **Guichard**, Vice-Chair; Claude **Nahon**, Treasurer; Michel **Eddi**, Secretary.

Scientific council

This multidisciplinary council ensures the monitoring of emerging scientific issues in order to guide the work of the teams and to support the board in identifying new areas of research.

IDDRI's scientific council is made up of 13 members and is chaired by Claude Henry:

- Philippe **Aghion** (Harvard University, Sciences Po)
- Scott **Barrett** (Columbia University)
- Ian **Goldin** (Oxford University)
- Pierre-Henri **Gouyon** (Muséum National d'Histoire Naturelle, AgroParisTech, Sciences Po, CNRS)
- François **Guinot** (CNRS, Académie des technologies)
- Alain **Grandjean** (Founder and associate of Carbone 4)
- Claude **Henry** (Sciences Po, Columbia University)

- Sylvie **Joussaume** (CNRS)
- Georgina **Mace** (Imperial College London)
- Laurent **Mermet** (ENGREF-AgroParisTech)
- Shyama **Ramani** (United Nations University in Maastricht, École polytechnique)
- Nicholas **Stern** (Grantham Institute for Climate Change and the Environment, LSE)
- Michel **Vivant** (Sciences Po)

Advisory council

This council's objective is to discuss the major guidelines in order to steer the activities of the Foundation and to guarantee the relevance of its work.

IDDRI's advisory council, chaired by Daniel Lebègue, is made up of 21 members representative of society's stakeholders:

Administrations

- Michel **Badré** (General Commission on Sustainable Development)
- Pierre-Franck **Chevet** (Ecology Ministry)
- Philippe **Lacoste** (Ministry of Foreign Affairs)

Research and higher education

- Bernard **Delay** (Biodiversity Research Foundation)
- Sylviane **Guillaumont** (Auvergne University)
- Jean-Charles **Hourcade** (Cired)
- Christian **Lequesne** (CERI)
- Marc **Pallemaerts** (IEEP)

Private sector

- Matt **Christensen** (Axa-Investment Managers)
- Pierre **Ducret** (Caisse des dépôts Climat)
- Françoise **Guichard** (GDF-Suez)
- Claude **Nahon** (EDF)
- Jean-Pierre **Tardieu** (Veolia Environnement Institute)
- Jean-Pierre **Tillon** (InVivo)
- Gilles **Vermot-Desroches** (Schneider Electric)

Non-governmental organisations and trade unions

- Pierre-Yves **Chanu** (CGT)
- John **Evans** (TUAC)
- Timothy **Geer** (WWF International)
- Daniel **Lebègue** (IFA)
- Camilla **Toulmin** (IIED)

Local authorities

- Denis **Baupin** (Deputy to the Mayor of Paris)

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foreword

LAURENCE TUBIANA (DIRECTOR), JEAN JOUZEL (PRESIDENT), IDDRI

Between science and decision: A critical role for IDDRI

The sustainable development debate is heating up. This can be seen in political declarations, the assertions of some economic decision-makers or the doubts expressed in opinion polls. Copenhagen is a good illustration of this, with its boomerang effect on the political consensus that gradually emerged throughout 2009. The moral imperative, called for right up to the level of Heads of State, prevented dissenting opinions from being heard and led to an agreement that fell short of expectations. Consequently, the sceptics, those who see sustainable development as a threat to progress or a triumph for obscurantism, or those who simply see no personal advantage in it, have found new resolve. But this is nothing new when we think back to the Heidelberg Appeal published prior to the Rio Earth Summit in 1992.

This renewed passion became the object of a true campaign when, particularly in the United States, but also in France, “doubts” about the reality of climate change were staged as a “scientific” debate within which the different points of view had their place. The American historian Naomi Oreskes, invited by IDDRI and Sciences Po, shed light on this phenomenon: just as sceptics disputed the origin of cancers linked to tobacco consumption, climate sceptics focus on the concept of uncertainty.


The scientific debate, which is sometimes exploited by different social actors, establishes the framework for the debate on public environment policies and confronts them with the coherence of their choices without judging the priorities set. Hence the importance for an institute such as ours, at the interface between social sciences and life sciences, that refers to scientific research, understands how society takes hold of these debates and addresses issues raised in politics. This is no simple task, for numerous reasons, one of which is time management. One example: seven years passed between two IPCC reports, and yet only a few months were provided to reach a consensus on the target of a mean temperature rise of two degrees relative to pre-industrial levels. Once the consensus was outlined, the significance of emissions reduction pledges

needed to be reconsidered in light of this target; an impossible task during the short time in which the negotiations took place. IDDRI fought alongside the scientists to ensure that a robust review clause was included in the Copenhagen and Cancún agreements. It is now up to us, along with the climatologists, to share what we have learned from the negotiation processes and the policies of different actors and to prepare the next stages.

Because the debate on sustainable development is becoming fiercer, it must be taken into decision-making bodies, into the strategic discussions of economic actors, and into debates on European and international public policy.

Our working relationship with the companies that are IDDRI’s stakeholders is based on a critical requirement: gaining an inside understanding of the technical and economic reality of industrial processes, sharing innovation prospects and eliminating fallacies through rigorous analysis. By providing these analyses and asking these questions, we can support those who, in the corporate world, believe that business as usual is an economic and social impasse.

Because no major country remains unaware of the debate on sustainable development, it is essential to understand the factors that determine national policies and to analyse them in light of global issues. From China to Brazil via Mexico or India, the debate on the change of development model is no longer the preserve of the old industrialised nations. But every country, whether emerging, emerged or established, is questioning the viability of this shift, which no country will make on its own because our economies are so integrated. Therefore, it is vital to build confidence: this depends on understanding the dynamics at work in each society and on the chances that progressive views prevail, conditions for creating the positive expectations needed for change.

Providing these elements of understanding, proposing informed and rigorous analyses, and creating channels for informal discussions to avoid false debates are increasingly important tasks for IDDRI. This vision determines the evolution of our work programme and our practices. 

editorial

BRUNO LATOUR (SCIENCES PO)

Where are the passions commensurate with the stakes?

It is vital that we change trajectories, as everyone knows, and yet it is proving harder and harder to do so, be it at the level of poorly adapted political frameworks, as was the case at Copenhagen in 2009, or the even more poorly adapted socio-technical frameworks, as shown on our screens by the gutted nuclear power stations in ill-fated Japan. The problem is that there is no mobilising, positive, alternative to the myth of progress, which nowadays is increasingly associated with a “headlong rush into the unknown.” “Negative growth” is unable to marshal the near-on revolutionary energies that would be needed to see through such radical change. As for “development”, be it sustainable, unsustainable, or managed, this also fails to incite the gamut of passions needed to match the stakes.

There seems to be a total disconnect between the scale of change required and the pallor or frailty of the feelings kindled by these transformations—which are nonetheless politely recognised as being “absolutely necessary.” As if each of us is preparing for a revolution, but actionlessly and from our armchairs... Fredric Jameson,¹ in his article “Future City” published in 2003, evokes the irony of the expression “it is easier to imagine the end of the world than to imagine the end of capitalism!” We see a historical and very particular form of market organisation as being natural and eternal, whilst at the same time dispassionately envisaging the possible disappearance of nature itself, or in any case Earth—and humankind along with it. The fact is that, with the ecological crises, we are trapped in a dual excess: we have an excessive fascination for the inertia of the existing socio-technical systems and an excessive fascination for the total, global and radical nature of the changes that need to be made. The result is a frenetic snails’ race. An apocalypse in slow motion...

The enthusiasts of old-style progress often complain about what they call gross exaggeration, or “millenarian fears”, and even a return

to religion and fanaticism. Yet, on the contrary, what should in fact strike us is the disconnect between the scale of the manifest threats and the placidity with which we calmly continue as if nothing were amiss. This is a far cry from the cinema’s apocalypses. During the Cold War, it is worth noting that no one demanded that we wait for absolute certainties before ensuring we had the wherewithal to defend ourselves. The precautionary principle was applied without a quibble. It is worth remembering the energy unleashed by the Soviet threat. In case of war, every one knows what passions need to be felt, what safeguards need to be taken, what counter-threat needs to be immediately set up. But when it comes to this asymmetrical threat, which is at the same time immense and remote, sure and contested, protean and above all non-human, we feel afraid and even terrified, but at heart cold and above all powerless. Some even say that we should do nothing until we are absolutely certain.

It is, moreover, deeply unjust to talk of an apocalypse with reference to ecology, as the pious souls of ages past awaiting the Final Judgement were well aware that what was playing out was less a real threat than an opportunity for conversion. When Albrecht Dürer engraved his famous *Apocalypse* in 1498, he like many others was expecting the world to end one millennium and a half after the birth of Christ. Even so, he still hoped that his immortal work would earn him a handsome income and was scarcely surprised to find the world was still around in 1501... As for us, what we need is not simply a conversion, but rather an alliance with a world for whose survival we must do all we can. Changing trajectories means more than a mere apocalypse and is more demanding than a mere revolution. But where are the passions for such changes? ■

1. Fredric Jameson is an American literary critic and political theorist. The author cites this phrase in his article “Future City”, 2003 in *New Left Review*.

January 26

Workshop *Water impacts of French biofuel development at the 2030 time horizon*

Restitution of the results of a CLIP study (*Water and Biofuels in 2030: Water impacts of French biofuel development at the 2030 time horizon*) carried out by French Petroleum Institute and Tréfle Laboratory.

JANUARY

February 10

Conference-debate *Paying for progress. The cash on delivery approach to development assistance*

Conference on a new aid modality conceived by Nancy Birdsall (Center for Global Development, CGDev), entitled *Cash on Delivery Aid* that will both ensure that donors pay only for measurable progress and promote recipient country ownership of development strategies.

February 16

International conference *Biodiversity 2010 and beyond?*

This special event opens a series of international biodiversity conferences organised jointly by the Fondation d'entreprise Hermès and IDDRI. It will be the opportunity to participate in the scientific, political and strategic review that will be presented by the different stakeholders concerned by biodiversity protection.

FEBRUARY

March 16

Conference-debate *Funding of water utilities in Nigerien urban areas*

Presentation of a cost assessment for the Niamey (Niger) water distribution extension programme and analysis of the respective contributions from the State, users and donors to this programme. The work has been conducted within the framework of the research project: "Financing urban water and treatment utilities in developing countries: modalities for sharing the global long-term cost between actors".

MARCH

April 14

Conference-debate *Confronting the challenge of effective urban governance: Lessons from New York City*

A conference by Ester Fuchs, on the viability of cities in the 21st century, which will depend on their ability to compete in the global economy and that in turn will depend on effective governance.

APRIL

May 03-07

International conference *Global forum on oceans, coasts and islands*

IDDRI co-organised the 5th Global Oceans Conference, "Ensuring survival, preserving life, improving governance", and members of its team organised and participated in technical panels and interventions.

May 05

Workshop *Sharing experiences in developing ICZM Protocols: Mediterranean and Western Indian Ocean perspectives*

The main objective of this informal meeting is to gather available stakeholders from the Mediterranean and Western Indian Ocean regions so that they can discuss the Mediterranean ICZM (Integrated coastal zone management) protocol experience regarding drafting and negotiation.

May 19

Conference-debate *The road to the Millennium Development Goals Summit*

In the framework of the Initiative for development and global governance, IDDRI co-organised (with the Ministry of Foreign Affairs, FERDI and the French Development Agency) debates on the Millennium development goals (MDG) in view of the MDG Summit (New York, 20-22 Septembre 2010).

MAY

June 11

Workshop *Roadmap 2050: a practical guide to a prosperous, low-carbon Europe - What does it mean for France?*

A workshop organised in order to present and discuss the results of *Roadmap 2050*, the landmark energy study from the European Climate Foundation, which has brought new ambition and understanding into the debate on Europe's future energy system.

JUNE

DOCUMENTARY

- January 11, 2010: The first broadcasting of *Copenhagen : Chronicles of an Unaccomplished Agreement*. This documentary was broadcasted on Canal+. Over the course of one year, from Bonn to Bangkok concluding in Copenhagen in December

2009, the documentary follows a fierce, difficult and passionate discussion between countries – rich and poor – often with divergent interests and objectives, and features Laurence Tubiana, mediator during the negotiations and member of the French Delegation.

BOOKS

- *Anticiper pour s'adapter*
Laurence Tubiana, François Gemenne and Alexandre Magnan.
Published by Editions Pearson, the book *Anticiper pour s'adapter – Le nouvel enjeu du changement climatique (Anticipation for adaptation - The new challenge for climate change)* first defines the concept of adaptation, then gives a comprehensive overview of future climate impacts and of the way in which they will affect human societies throughout the world, taking into account the different degrees of vulnerability of territories and populations. The authors also take stock of specific actions already planned by the NAPAs (National Adaptation Programmes of Action) and address the thorny issue of funding for these policies, providing an insight into the different possible options for international cooperation.

- *A Planet for Life Series 2010. Cities: Steering towards Sustainability*
The thematic dossier of *A Planet for Life series 2010* is dedicated to cities, which are are pivotal to sustainability concerns. As more than half of the world population lives in urban areas, today's evolution of cities in various regions of the world does not fit ecological, social and economic needs. However, urbanisation is not a problem per se for sustainable development, as cities, in all their diversity and complexity, offer solutions as well as challenges. In that regard, megalopolis in the emerging and developing countries might play a crucial role in defining and adopting new sets of development norms.

IDDRI'S COLLECTIONS

- Synthesis 01/2010 *Adaptation to climate change and industrial vulnerability*
Benjamin Garnaud, Céline Ferret
- Synthesis 04/2010 *Biodiversité 2010, et après ?*
Damien Conaré
- Synthesis 06/2010 *CEP 10 in Nagoya: A success for global biodiversity governance?*
Raphaël Billé, Claudio Chiarolla, Lucien Chabason
- Analysis 01/2010 *International collaboration: the virtuous cycle of low carbon innovation and diffusion*
Kathleen Dominique
- Analysis 04/2010 *Questioning the theory of PES in light of emerging experience and plausible developments*
Romain Pirard, Raphaël Billé
- Ideas 05/2010 *Building global policies: development assistance, a source of inspiration?*
François Pacquement

July 07

Workshop Agriculture, Development and Climate Change

A workshop organised with IDDRI within the 2010 CIRAD meetings dedicated to the stakes and implications of research on climate change.

JULY

September 21

Conference-debate Which meaning to growth?

A conference-debate organised by IDDRI and Association HEC's Sustainable Development department which objective is to brainstorm on the issues at stake in measuring growth at the micro and macro economic levels.

September 27

Workshop Bringing more collective and shared expertise in global food security debate

An informal workshop organised in Rome (Italy) by France, Argentina, Brazil and Germany, with support provided by IFAD, Cirad, IDDRI and Bioversity International, on the management of FAO's High-Level Panel of Experts on Food Security and Nutrition (HLPE).

SEPTEMBER

October 27-29

International conference Climate Controversies - Science and Politics

A Seminar organised in Brussels and Paris with the objective to unravel the form, content and actors of the controversies surrounding climate change: scientific aspects of the debate; actors central to the controversies; media representation; effects on public initiatives; linkages between ideological cleavages and scientific controversies; visualization and representation of these controversies.

OCTOBER

November 16

Conference-debate What is the future of bluefin tuna? Perspectives before ICCAT

A conference organised by Pew Environment and IDDRI, on the eve of the 17th Special Meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT), whose 48 member states will decide on the future of bluefin tuna in the Mediterranean.

November 16

International conference Science and society: IPCC reform and the global climate challenge

An international conference co-organised in New York by Columbia Climate Center-Earth Institute, IDDRI, The Alliance Program and The School of International and Public Affairs (SIPA, Columbia University), dedicated to the analysis of the links between science and public policy as related to climate change.

November 25

Conference-debate Towards low carbon cities in China

A conference organised by AFD (French development agency) and IDDRI, in order to give a presentation of the "Energy efficiency and urban development" Task Force's report made for policy recommendation to the CCICED (China Council for International Cooperation on Environment and Development).

NOVEMBER

SCIENTIFIC PUBLICATIONS

- Ideas 07/2010 *Making Sense of the Draft Protocol on Access and Benefit Sharing for COP 10*
Claudio Chiarolla
- Ideas 08/2010 *Can export tax be genuine climate policy? An analysis on China's export tax and export VAT refund debate policies*
Xin Wang, Ji Feng Li, Ya Xiong Zhang
- Ideas 09/2010 *Pêche et biodiversité marine : complémentarité ou concurrence au sein de l'ordre juridique international ? Le cas du thon rouge*
Serge Besier
- Ideas 10/2010 *Agriculture and deforestation: What role should REDD+ and public support policies play?*
Romain Pirard, Sébastien Treyer
- François Gemenne : "Climate-induced Population Displacements in a 4°C + World", *Philosophical Transactions of the Royal Society A*, 2010
- Laurence Tubiana, Jean-Charles Hourcade, Hervé Le Treut, « L'affaire climatique, au-delà des contes et légendes », *Projet* n°316/2010
- Raphaël Billé, Julien Rochette, « Mise en œuvre de la gestion intégrée des zones côtières (GIZC) : comment réconcilier approche par projet et approche normative ? », *Annuaire droit de la mer* n°13/2010
- Alexandre Magnan, « Proposition d'une trame de recherche pour appréhender la capacité d'adaptation au changement climatique », *Vertigo* vol.9 (3).
- Tancrede Voituriez, « L'économie verte bouleversera-t-elle la géographie de la production et du commerce ? », *Cahiers français* n°355/2010
- Romain Pirard, « Les marchés carbone ne sauveront pas les forêts tropicales », *Études foncières* n°146/2010
- Xin Wang, Ying Chen, "Disentangling Carbon Tariffs: An analysis of the European policy", *Chinese Journal of European Studies* n°166/2010
- Benjamin Garnaud, Raphaël Billé, "Adaptation to climate change: lessons from North African cases" In R. Fujikura and M. Kawanishi (Ed.), *Climate change adaptation and international development: making development cooperation more effective*, Earthscan, London, 2010, pp. 239-258, Earthscan 2010
- Jun Li, Michel Colombier, "Economic instruments for mitigating carbon emissions: scaling up carbon finance in China's buildings sector", *Climatic Change*, Springer, DOI: 10.1007/s10584-010-9970-y, Dec. 2010

Introduction

Solid roods to tackle new issues

After the resounding failure of the Copenhagen conference, which was highly charged because of the excitement it had caused, the year 2010 was, for global sustainable development issues, a year of reconciliation marked by the return of modest signs of hope and by a renewed ability to make collective progress, albeit with the fear of having to wave good-bye to environmental ambitions and demands that nevertheless remain a necessity.

As regards the climate, the planet seems to have hailed the renewed capacity of the United Nations Framework Convention on Climate Change to facilitate the emergence of agreements such as the one reached in Cancún, made possible, *inter alia*, by the diplomatic abilities of India and Mexico, and to reconnect the Copenhagen agreement to multilateral negotiations. The emerging countries also played a major role in the Nagoya biodiversity agreement. Admittedly, these are small steps, but they seem to be going in the right direction. Having strongly asserted their sovereignty, but also their commitment to seriously addressing the need to direct development models towards greater sustainability, the emerging countries are redesigning multilateralism rather than contesting it.

In this very progressive approach to international negotiations, two characteristics seem to have established themselves in 2010.

International negotiations: progress sets the wheels back in motion

First, it is now almost impossible to collectively set environmental targets at the global level. Of course, the major States, both emerging and developed, are currently implementing policies on climate or biodiversity. But whether or not global environmental targets are met (limiting global warming to +2°C, halting biodiversity degradation, etc.) depends on the collection of national or regional policies that have varying levels of coordination and ambition. They must therefore be the focus of attention: they represent the beginning of the solution, sometimes in an innovative way, but they may also be major obstacles.

The second characteristic is that the negotiations are not far from functioning accord-

ing to the principle of the lowest common denominator to reach an agreement; the fundamental issues and the balance of power are thus deferred until the implementation stage, during which the most difficult problems will surface. The case of the Convention on Biological Diversity (CBD) Strategic Plan for 2011-2020, adopted in Nagoya, is a perfect example of this approach. In relation to the 2010 targets that were not linked to any realistic leverage, it opens a very useful framework for strategic action, not just to reassert the legitimacy of the convention; it also seems to provide the first serious possibilities for achieving the capacity to truly alter the trend towards the degradation of ecosystems, for example where subsidies harmful to biodiversity are concerned. It will therefore be when the time comes to discuss the implementation of these tools for change, once an agreement has been reached, that resistance will be felt more keenly. Likewise, the implementation of the Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) will constitute an inch-by-inch negotiating phase to interpret the wording that made it possible to reach an agreement in Nagoya. Nothing is certain, therefore, but some good reasons for taking action have emerged.

Economic and social crisis: the tail of the comet or a fundamental issue?

Alongside environmental multilateralism, it proved difficult in 2010 to tell whether the crisis was over, or whether it – or at least some of its symptoms – might be taking root, especially in developed countries. Several lines of interpretation of the crisis have been put forward in the international arena. First, the crisis means that for a long time to come the accent will be on the adverse or positive social impacts of the changes underway – the fear of losing jobs or, on the contrary, the hope that the transition towards green growth will create jobs, as proposed by the Green Economy Report published by the United Nations Environment Programme (UNEP). It will therefore be important to avoid becoming trapped in a debate that would show, from a static approach, the adverse social impacts of environ-

mental policies on a society that is already depressed; it will become increasingly necessary to find ways of showing that environmental criticism of current development models also aims to question the social impacts of these models and of the paths they follow, in both developed and developing countries. To do so, the joint analysis, according to both social and environmental aspects, of the regional dynamics involved in the development of cities or of the sectoral dynamics of energy and agriculture is becoming more and more essential.

Social weaknesses are particularly at the core of IDDRI's work on adaptation issues, which is increasingly focusing on adaptive capacity and vulnerability: going beyond climate change alone, questions regarding the vulnerability of our development models are at the heart of some particularly tricky social choices, such as the need to see migration as a legitimate adaptation strategy and not just as an impact of environmental or economic change that should be avoided.

The second characteristic of this world that is not entirely sure whether it can claim to have overcome the crisis concerns the need, for the whole planet, to innovate in order to move towards more sustainable societies, knowing full well that this implies a technology race between States whose investment capacities appear to be permanently differentiated. Competition and cooperation dynamics seem to be inherent to the activity of innovation, but accompanying policies for this innovation vary considerably from one country to another, and fears are high, especially in Europe, that in the context of an open, globalised world, support for research and development (R&D) will in fact mainly benefit other countries that provide far greater support for technological resources. Innovation policy-making is therefore a key issue in such a context, where macro-economic asymmetries between countries with very high growth and those with low growth will heavily influence the means for investing in R&D policies and the potential benefits of these policies.

We may therefore have to admit, just over a year before the 20th anniversary of the Rio Earth Summit (1992), that the collective global project adopted there, which counted on synergies between trade globalisation, development and environment, based on a change

of development model in both the North and the South, has been greatly challenged by the 20 years that have passed since then, during which the rate of globalisation has accelerated and the asymmetries in financial resources have increased.

News questions for IDDRI, at the juncture between different programmes

In this context, which confirms the relevance of IDDRI's project, at the interface between the analysis of international relations and the in-depth understanding of national and sectoral policy-making, the structure of its programmes also makes perfect sense. The two mainstay programmes, focusing on environmental subjects covered by a convention resulting from Rio – Climate and Biodiversity – enable IDDRI to take a close look at specific issues in terms of both the diagnosis made by scientists and the means of action.

Today, they are supplemented by two other programmes focusing on human activities and their spatial or sectoral dynamics, which contribute to the irreversibilities and inertia of our development paths. It is now essential to tackle these in detail, in order to analyse the links between the social and environmental dimensions, and to show how they can also be a melting pot for innovative solutions and changes in our development models.

The year 2010 was in fact the first of the full deployment of the Urban Fabric programme, which compares detailed analysis of initiatives in favour of sustainable cities and tools for action set up within the framework of multilateral environmental agreements with analysis of the social consequences of underlying trends at work in the urban fabric, such as the financialisation of financial markets, which could undermine all the efforts of sustainable development policies. A programme on agricultural and food security issues was also launched in 2010, and is currently in the structuring phase. Since the food crises of 2006-2008, the international debate

The collective global project adopted at the Rio Earth Summit in 1992, which counted on synergies between trade globalisation, development and environment, based on a change of development model in both developed and developing countries, has been greatly challenged by the 20 years that have passed since then.

has gradually developed the concept of food security as a global public good, which is not only a new challenge for the global community, but also a framework for questioning our development models. This implies focusing on international trade and local development policies; the consequences of climate change, of the scarcity of resources and of concentration in the agri-food industry; and the impact of the modernisation of agriculture on the natural resource base upon which it is built, but also on the social conditions of agricultural workers, who still make up a considerable proportion of the world population.

Finally, in 2010, IDDRI's Governance programme, which provides a cross-cutting approach to issues such as the articulation between trade negotiations or the international financial system and the different multilateral environmental agreements, saw the expertise developed in the four aforementioned programmes crystallise around a set of new cross-cutting issues that will play a structuring role for IDDRI and for sustainable development at the global level.

Among these cross-cutting issues, the multilateral context mentioned earlier clearly gives special relevance to questions about the true value of international agreements: is it really at this level that sustainable development efforts should be made? Since it seems necessary to find capacities for international coordination, when the greater part of this energy seems to be spent just keeping all the actors around the table, how can the performance of negotiations be assessed in order to ensure we are actually moving in the right direction?

In all of IDDRI's programmes, 2010 also saw questions asked in different terms but according to a very coherent analytical framework about the role of science in these global environmental issues (diagnosing unsustainability, putting items on the agenda, assessing distance from the target, etc.), a role largely disputed, and which science-policy interface mechanisms are attempting to organise and to make more effective and more legitimate. Through the IPCC, IPBES or the Panel of Experts on Food Security, this issue is therefore

becoming a key area of research and action for IDDRI.

For the last few years, IDDRI has also centred the work of its Governance programme on analysis of the role of emerging countries and understanding of their representation of sustainable development problems. On this point, IDDRI's different programmes have confirmed the importance of the experiments or new ideas developed in these countries, which seem set to give impetus to the sustainable development agenda in the near future, far more than the illusion of the virtuous model of the European Union alone leading the way. Europe and the rest of the world are watching with interest not only attempts at carbon taxation in China, but also radical urban policies on the production of low-carbon cities. In this context, in 2010 IDDRI also considerably developed its capacity to analyse and influence debates on European policies: review of the debate on the objectives of the Climate and Energy Package, dialogue between Member States on transport, and understanding of the emergence of global arguments (food security, climate) in the debate on the reform of the Common Agricultural Policy (CAP). Without holding up European choices as an example, these debates on EU policies are relevant case studies in that they conceal important elements of analysis regarding room for manoeuvre for policies at the regional level. These analyses are also a condition for having a say on these issues at the international level.

Finally, 2010 saw questions emerge in all of the programmes about the conditions and regulation of innovation policies (ABS Protocol, priorities for international agricultural research, technology transfer for climate issues, etc.), which all become relevant in the general context described above of highly varied State capacities to guide this transition towards sustainable paths.

Institutional framework: confirmed academic and operational partnerships

From an institutional viewpoint, IDDRI's grounding of these different subjects and of the new challenges that appear to be emerging strikes a chord with two institutional partnerships whose role was particularly important in 2010. First, the partnership with Sciences Po ensures essential scientific and

The experiments or new ideas developed in these countries, which seem set to give impetus to the sustainable development agenda in the near future, far more than the illusion of the virtuous model of the European Union alone leading the way.

educational cooperation; collaboration with this leading international academic network provides IDDRI with new possibilities for strategic alliances, especially in the emerging countries, and allows the institute to benefit from the creativity, expertise, and diversity of Sciences Po students themselves through internships, innovative educational exercises such as role plays, and also IDDRI's association with doctoral projects. This partnership with Sciences Po becomes even more strategic in the sense that the institution's scientific project has some significant points of convergence with the key issues described above, which imply transformative capacities for analysis of the representation and construction of public issues, questioning not only the role of science but also that of all the other actors concerned.

2010 was also the first year for the Initiative for Development and Global Governance (IDGM), a strategic partnership between IDDRI, the French Development Agency (AFD) and the Foundation for International Development Study and Research (FERDI), whose main objective is to rethink development assistance at a time when not only large-scale South-South cooperation, but also some truly global public policies seem to be emerging.

Based on the solid foundations of IDDRI's strengthened programmes and partnerships, the year 2010 was the opportunity to launch an in-depth analysis of future scenarios for the institute, which will lead in 2011 to the establishment of a new strategic plan for IDDRI, in line with the challenges and radical changes facing the field of sustainable development. ■

Key Figures

Website

- > 14,720 visits per month (7% more than 2009)
- > More than 35% of visits from outside France
- > 23 videos of conferences and seminars posted online (about 30,000 viewings)

Publications

- > 21 IDDRI publications:
 - 10 Ideas; 6 Synthesis;
 - 5 Analysis;
 - > 3 books published with partners:
 - A Planet for Life* 2010;
 - Cahiers du CLIP* n° 20;
 - Anticiper pour s'adapter*
 - > 4 reports & briefing papers
 - > 165 articles or quotes in the media
 - > 50 external contributions (including 19 scientific publications)

Activities

- > 128 interventions by the IDDRI team in conferences, workshops, seminars, etc.
- > 26 conferences-debates and 9 workshops ("Preparing for population displacement and resettlement associated with large climate change adaptation and mitigation projects", "Bringing more

collective and shared expertise in global food security debate", "Roadmap 2050: A practical guide to a prosperous, low-carbon Europe – What does it mean for France?")

- > 5 international conferences (including the "Biodiversity 2010 and beyond?" conference, organised in partnership with the Fondation d'entreprise Hermès, and the "Climate Controversies – Science and Politics" conference, organised in Brussels and Paris)
- > 2 regular seminars throughout the year:
 - 9 sessions of the "Sustainable Development and Economics of the Environment" seminar, organised with the École Polytechnique-EDF Sustainable Development Centre;
 - 2 sessions of the "Fondation d'entreprise Hermès – IDDRI" seminar.

Please visit our website for a complete list of IDDRI activities in 2010: www.iddri.org

Biodiversity

2010 was the second full year of implementation of the guidelines of the long-term work programme on biodiversity. This programme has continued its work in the four areas selected in 2008: international biodiversity governance, the economics of biodiversity, ocean and coastal zone management, and tropical forests.

From a more cross-cutting perspective, these activities were all aimed at informing an in-depth discussion on the three major issues that have emerged since 2009 that are not only at the heart of the biodiversity problem, but also structure IDDRI's sustainable development agenda:

- To what extent and in what way is biodiversity loss a matter for international coordination? Placed under national jurisdiction by the Convention on Biological Diversity (CBD) of 1992, biodiversity is in fact not legally recognised as the common heritage of humankind. The surfeit of international conventions and organisations is often criticised – rightly or wrongly – for being a source of inefficiency, and multilateralism is gradually being redefined, particularly under the effect of the emergence of new economic and political powers. It is therefore now essential to accurately analyse to what extent and for which specific issues the international level of governance should be mobilised, given its strengths and weaknesses.
- How can we influence the sectors of activity with the greatest involvement in biodiversity loss? It is clear that this loss will not be slowed, let alone halted, without a radical reversal of trends linked to the most impacting sectors, in other words those with the most voracious demand for natural areas and resources.
- How can routine management be transformed other than increasing the number of “islands of innovation”? The field of sustainable development is seeing the proliferation of institutional, legal, procedural and technological innovations through

an ever-growing number of pilot experiments whose success has resulted in the multiplication of exceptions rather than the transformation of the ordinary. How then can the replication and change of scale be planned in a precise and strategic manner?

But of course 2010 was not a year like any other: officially declared the International Year of Biodiversity by the UN (*see* Highlight “International Year of Biodiversity”, p. 13), it has seen a string of successes as well as the culmination of the increasingly insistent paradox resulting from the concomitance of the worrying decline in global biodiversity and the intensification of efforts deployed to remedy this decline. It therefore seems appropriate to highlight two questions underlying the previous ones, to which IDDRI has attempted to provide some answers: what do we call a success in terms of global biodiversity governance? And how can we change the nature of decisions made beyond formal processes?

What constitutes a success for international biodiversity governance?

Depending on the case, IDDRI has worked to accompany, inform and/or analyse the main issues of the 2010 agenda. Alongside its French and international partners, for example, IDDRI has continued to support the implementation process for the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), whose creation was made official by a United Nations General Assembly decision in December. This special observation post has enabled IDDRI to make progress in its work on the opportunities provided by this new “IPCC for biodiversity”, which will clearly depend on its internal functioning mechanisms and the work programme it will set.

The chief success of 2010, the Nagoya deal is based on three main components¹: the pro-

1. Billé, R., Chiarolla, C., Chabason, L. (2010), *La CdP 10 de Nagoya : un succès pour la gouvernance mondiale de la biodiversité ?*, IDDRI, « Synthèses » 06/2010.

protocol on access and benefit sharing (ABS), the 2011-2020 strategic plan and its 20 targets for 2020², and the agreement on financing the implementation of this strategic plan. Through its close monitoring of negotiations prior to the adoption of the ABS protocol³ and with its detailed analysis of the final text, IDDRI stressed both the importance of this stage in the life of the CBD (Convention on Biological Diversity) and the limitations of the text agreed upon. The latter are largely due to the non-binding nature of many provisions, the room for interpretation given to Parties, the key role that national legislations will play in its future implementation and the foreseeable weakness of the future compliance monitoring mechanism. The 2020 targets, which are made relatively non-binding by the legal nature of the strategic plan and its wording, have nevertheless been given special attention by IDDRI since they work on a different level to that of legal obligations for Parties. Indeed, several of these targets concern – for the first time in such an explicit manner within the CBD framework – the driving forces behind biodiversity loss, such as agricultural pollution, overfishing or harmful economic incentives. Consequently, they indirectly establish responsibilities and provide conservation actors with extra leverage for argumentation and action. Finally, in 2010 IDDRI launched research on financing that highlights the lack of robustness of assessments of needs and of means already available, explaining and stressing the weakness of this third pillar of the Nagoya deal.

Are the “successes” for global biodiversity governance therefore still to be confirmed, given that they largely depend on what States and actors are willing or able to do with them? Just as it is legitimate to ask, within the UNFCCC framework, whether the results of the climate negotiations will steer us onto the path to meeting the substantial targets set, we must also ask whether the successes of 2010 have laid the foundations for reversing the major trends at the origin of biodiversity loss: at this stage, the answer can only be no.

2. Billé, R., Le Duc, J.-P., Mermet, L. (2010), “Global biodiversity targets: Vain wishes or significant opportunities for biodiversity governance?”, In E. Broughton (Ed.), *Global governance of biodiversity: New perspectives on a shared challenge*. IFRI, décembre, pp. 45-85.

3. Chiarolla, C. (2010), Making Sense of the Draft Protocol on Access and Benefit Sharing for COP 10, IDDRI, « Idées pour le débat » 07/2010.

Finally, the work underway at IDDRI highlights the gap that remains – and is perhaps even growing – between processes and results. From Nagoya to IPBES, red tuna, the French Grenelle (Round table bringing together main environment stakeholders) or the US ocean task force, the emphasis on processes rather than on changes in practices and their impact on biodiversity is nevertheless increasingly characteristic of action.

How can decisions be changed beyond processes?

Through its four focal areas, the biodiversity programme therefore also seeks to provide information on this dichotomy between procedural and substantive rationality, particularly by studying how both legal and economic tools are mobilised.

As we have seen, research conducted on the ABS protocol and the 2011-2020 strategic plan reveal the decisive nature not only of the content of the texts adopted at the international level, but also of their normative scope, of mechanisms for monitoring implementation or even sanctions, and of the way in which States and actors take them up. Research on the future implementation of the Protocol on Integrated Coastal Zone Management in the Mediterranean (see Highlight “Integrated coastal zone management: from research to international negotiations”, p. 14) fully confirms these analyses, while adding another dimension with the key issue of institutional, organisational and individual capacities for implementation. IDDRI thus analyses these capacities while helping to develop them at the regional level as well as within the States concerned. The issue is also particularly acute in the Western Indian Ocean, where the contrasts between Parties to the Nairobi Convention are at the heart of the draft protocol and the negotiations that began in 2010. In its feasibility study⁴, IDDRI made it clear that taking this issue into

IDDRI has therefore placed at the heart of its work on biodiversity the key question of the real use of economic evaluations, which has been somewhat abandoned in international research.

4. Billé, R., Rochette, J. (2010), *Feasibility Assessment of an ICZM Protocol to the Nairobi Convention*, Report prepared at the request of the Nairobi Convention Secretariat and presented at the first conference of the national ICZM Committees in the WIO (Mombasa, Kenya, 24-25 March 2010).

account is one of the main conditions for ensuring the aforementioned Protocol eventually produces some real, positive results for coastal zone management in the region, and is thus providing technical assistance for the process underway and studying the possibilities for consolidating the regional framework in line with the needs identified.

Furthermore, an existing trend that is currently progressing in the field of biodiversity is unquestionably the growing role being given to economic science. This role is mainly divided into two complementary aspects: the proliferation of economic evaluations of biodiversity and ecosystem services, which are intended to make a pragmatic, decisive contribution to decision-making in favour of biodiversity, and the implementation of incentive instruments that are supposedly more effective than command-and-control type regulations. IDDRI is therefore first studying whether the use of economic evaluations is truly pragmatic: how exactly are they expected to contribute to decisions that are more favourable to biodiversity? Both analysis and research

on known cases of mobilisation in specific decision-making processes tend to show that an immense gap exists between the formulaic calls to conduct economic evaluations of biodiversity and their actual use. Although it may seem obvious, decision-making cannot be captured as the result of a calculation, however sophisticated. IDDRI has therefore placed at the heart of its work on biodiversity this key question of the real use of economic evaluations, which has been somewhat abandoned in international research. In terms of incentive instruments, which are often hastily termed market mechanisms, in 2010 IDDRI continued its investigations into payments for ecosystem services (PES)⁵, which are based on the principle of voluntary, contract-based payments between the beneficiary of a service and the provider of that service (who controls the resources at the origin of the service). Not that this type of intervention is new – it has been implemented over the last few decades under different names – but the high expectations currently being raised by PES make it necessary to conduct an in-depth analysis of their foundations, the conditions for their success and the potential possibilities they offer. Moreover, the emergence of international mechanisms such as the one aimed at reducing deforestation and forest degradation in the developing world under the aegis of the Climate Convention (REDD) is likely to lead to the large-scale implementation of PES, particularly in tropical forest ecosystems.

These different activities have made it possible to dispel certain unfounded beliefs and to put into perspective the capacity of economic evaluations and incentive instruments to profoundly influence the majority of decisions and policies that contribute to biodiversity loss. However, some promising avenues have also emerged, especially through the ability of the public authorities, in certain contexts, to combine PES and the consolidation of public policies. ■■■

IDDRI AT THE HEART OF THE GLOBAL FORUM ON OCEANS (PARIS, MAY 3-7, 2010)

Created in 2001 in preparation for the World Summit on Sustainable Development in Johannesburg (2002), the Global Forum on Oceans, Coasts and Islands is the largest informal forum for discussion on marine and coastal issues. The fifth edition of the Forum, whose theme was “Oceans, Climate, Biodiversity: From Copenhagen 2009 to Nagoya 2010”, was held in Paris and brought together over 800 participants from 80 countries.

As co-organiser of this event, IDDRI was particularly involved in its scientific coordination. IDDRI's Biodiversity and Climate teams thus organised and contributed to several workshops: implementing integrated coastal zone management; including marine issues in post-Copenhagen discussions; the relevance of using carbon market mechanisms in financing the protection of marine and coastal ecosystems; the vulnerability of Small Island Developing States; and challenges linked to population movements, etc. IDDRI's recent work on the integrated management of seas and coasts on the one hand, and on the future role of the IPBES platform on the other, was also presented during a plenary session.

5. Pirard, R., Billé, R. (2010), *Payments for Environmental Services (PES): A reality check (stories from Indonesia)*, IDDRI, « Analyses » 03/2010, et Pirard, R., Billé, R. (2010), *Questioning the theory of Payments for Ecosystem Services (PES) in light of emerging experience and plausible developments*, IDDRI, « Analyses » 04/2010.

International Year of Biodiversity

Biodiversity was on top of the agenda in 2010, which was not only the deadline for the “2010 Targets” aimed at halting biodiversity loss, but also the International Year of Biodiversity. The Conference of the Parties (COP) to the Convention on Biological Diversity (CBD), held in Nagoya in October, was thus the culmination of a year full of major international meetings: the Global Forum on Oceans, Coasts and Islands (May) (see Box, p. 12); the Third Intergovernmental Meeting on the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES), which came out in favour of its creation (June); the United Nations General Assembly Special Session on Biodiversity (September); and, finally, the Fifth Meeting of the Parties to the Cartagena Protocol on Biosafety, which adopted a supplementary protocol on liability and redress (October).

In order to contribute to debates and discussions and to play its full role as a “conveyor”, both between science and decision-making and between the national and international levels, IDDRI took different kinds of action during this International Year of Biodiversity.

First, it organised several meetings with its member companies, aimed at working with them to decipher the results of the report on The Economics of Ecosystems and Biodiversity (TEEB) by Pavan Sukhdev, as well as the challenges of the COP in Nagoya.

In addition, on several occasions IDDRI invited the media to press conferences, enabling it to present its vision of the issues of each major event during the Year of Biodiversity, as well as its analysis of the subjects addressed: ocean governance, IPBES, access to genetic resources and the fair and equitable sharing of benefits arising from their use (ABS), and TEEB.

In partnership with the Fondation d'Entreprise Hermès, IDDRI also organised two conferences. The first, entitled “Biodiversity 2010, and beyond?” brought together a panel of high-level international speakers, as well as around 400 participants, for a review of the 2010 Targets and the strategies to be implemented after 2010. The second conference concentrated on the synergies and conflicts between global

biodiversity governance and the intellectual property rights regime.

Finally, IDDRI was very active at the COP in Nagoya, which it monitored closely in cooperation with the actors present, including the delegations of the different State parties. In addition, different contributions were made to the debates on the three key issues of the Nagoya agreement held before, during and after the conference: a publication explaining the negotiations on the ABS protocol, an analysis of the Biodiversity Technology Initiative, a publication on the limitations and opportunities of the global targets and an intervention on this issue during the Oceans Day in Nagoya, as well as in-depth research on the issue of financing, whose findings will be published in 2011 in order to contribute to discussions that remained largely unresolved in Nagoya.

Overall, IDDRI feels that the International Year of Biodiversity produced mixed results. In terms of processes, 2010 proved that the multilateral environmental system within the United Nations system still functions: it remains an appropriate forum for global regulation in which all those concerned feel legitimate, responsible and valued. The fact remains that the foundations laid in 2010 will not be enough in themselves to halt the global increase in biodiversity loss, in other words to profoundly influence the main drivers of this loss, such as land conversion, overexploitation, pollution and climate change. Although the formal objectives set (the creation of IPBES, the adoption of an agreement on ABS and a new strategic plan) were unquestionably achieved, the international community essentially agreed to make decisions, rather than actually making them. The hardest part is therefore still to come, not only within the CBD, but also in other forums and at other levels of governance. The current reforms of European agricultural and fisheries policy are key examples of this. ■

Integrated coastal zone management: from research to international negotiations

IDDDRI has made research on Integrated Coastal Zone Management (ICZM) a key area of its Biodiversity programme.

Since 2009, IDDDRI and the Sciences Po *Chaire Mutation de l'Action Publique et du Droit Public* have been working together on the Protogizc project, which is co-financed by the French Ministry of the Environment (LITEAU programme) and the PAP/RAC (Mediterranean Action Plan). The aim of this project is to analyse the challenges and opportunities for implementing the Protocol on ICZM in the Mediterranean, which was adopted in January 2008 by the Contracting Parties to the Barcelona Convention. This Protocol is the first supra-State legal instrument aimed specifically at coastal zone management. As Mediterranean coastal zones have been on an unsustainable development path for the last few decades, the application of this new legal tool is of vital importance for the future of the Mediterranean basin. The Protogizc project is therefore devoted to the theoretical and operational issues raised by the entry into force of the text. In making a detailed analysis of the Protocol's provisions – their content, their normative scope, etc. –, the aim of the research is to study methods for implementing the text in four States (Croatia, France, Italy and Syria) whose comparison is interesting on several counts. The goal of this project is thus to make it easier to gradually create the conditions for implementing the Protocol in various fields, ranging from the legal framework to capacity building (administrative and legal staff, etc.), the use of regional planning documents (cadastres, land use plans, etc.) and the integration of climate change issues in planning and ecosystem protection decisions. For example, special attention is given to the implications of establishing a uniform 100 metre setback zone, provided for in Article 8.2, whose potential opportunities in terms of both biodiversity protection and adaptation to climate change come up against local contexts that are inevitably specific. A guide to the Protocol for Mediterranean States should be published in 2011 by the PAP/RAC, based on the findings of the project.

The dissemination of the preliminary results of the project coincided with the emergence, within the Western In-

dian Ocean regional system (Nairobi Convention) of discussions on the creation of a similar legal instrument. Due to its experience in the Mediterranean, IDDDRI was called upon to accompany the regional actors in this process. At the request of the Indian Ocean Commission (IOC) and the European Union, IDDDRI began by conducting a feasibility study for the adoption of an ICZM protocol to the Nairobi Convention. This study was examined by the States during the Conference of the Parties in April 2010, which officially decided to launch the protocol development process. In collaboration with a group of regional experts, IDDDRI then helped to draft an initial text, which served as the basis for technical discussions. Since then, IDDDRI, with the support of the FGEP and the IOC, has been providing technical assistance during the successive meetings of the Ad-hoc Legal and Technical Working Group for the Drafting of an ICZM Protocol to the Nairobi Convention. It has thus made a number of interventions during sessions in order to inform debates, especially in light of the Mediterranean experience. In addition, more formal presentations have been made “on request”, as needs arise – for example on the potential linkages between an ICZM protocol and adaptation to climate change efforts. Finally, the feasibility study stressed the need to work now to anticipate the challenges of future implementation in order to prevent the risk of developing a “paper protocol”. As part of these discussions, IDDDRI is also producing a report on opportunities for consolidating the regional system; its delivery will coincide with the end of negotiations. ■

Climate

GOVERNANCE
CLIMATE
PROGRAMME
NATURAL
RESOURCES
BIODIVERSITY
URBAN FABRIC
GLOBALISATION
INFLUENCE
NEGOTIATION
INTERFACE
DECISION
RISK
TRAJECTORY
SCIENCE
ANALYSIS
STAKEHOLDERS
EUROPE
EMERGING
GLOBAL ISSUES
TRANSFORMATION
FINANCING

In 2010, IDDRI's Climate programme continued to focus on and take part in international negotiations. It also stepped up its presence in the emerging countries, especially in China and India, and improved its understanding of the changes taking place in these countries. Above all, it also returned to the European arena, especially co-organising a high-level dialogue on European policy and leading an important project on the move from 20 to 30% emissions reductions in Europe by 2020. Finally, the Climate programme launched a partnership with the Grantham Institute (United Kingdom) in order to inform the debate on green growth issues, and continued to tackle adaptation to climate change issues.

International negotiations

The year 2010 was marked by the success in December of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Cancún (Mexico). However, this success is only marginal, since the problem of climate change is still far from being resolved. The international community reasserted its decision to cooperate in order to attempt to limit global warming to less than 2°C relative to pre-industrial levels. But the sum of quantified emission reduction commitments by the different countries for 2020 does not provide a reasonable chance of meeting this global warming target for the time being. This success is nevertheless significant in relation to the failure – which was in fact exaggerated – of the Copenhagen conference a year earlier. The negotiations have made visible progress, finishing what Copenhagen was unable to achieve, in other words the adoption of an agreement under the UNFCCC, and clarifying the content of certain rules, particularly concerning the MRV system (measurement, reporting and verification) for emissions reduction commitments and initiatives, as well as mechanisms for finance and technical cooperation. In addition, the environment ministers and inter-

national negotiators gave the impression of a united group, demonstrating their cohesion and their desire to succeed, so that the lack or weakness of an international agreement could not be used as a pretext for opposition to change from a national viewpoint.

In this context, IDDRI continued its monitoring, analysis and mediation in the international negotiations, and focused its work on two key elements: the MRV system and the mechanism for reviewing collective and individual targets. In particular, IDDRI actively participated in the definition and implementation of the International Partnership on MRV and NAMAs (nationally appropriate mitigation actions), launched by the German and South-African governments. This network is aimed at making a connection between the national utility and international necessity of setting up the MRV mechanism, using side events to the international negotiations to bring together the MRV experts from the different delegations. This partnership proved its worth in Cancún and is expanding. IDDRI also takes part in the Open Climate Network initiative launched by the World Resources Institute (WRI), whose objective is to develop an independent capacity for measurement and verification of the emission reduction commitments and action of the different countries. This initiative is based on the geographical expertise of different research institutes and think tanks throughout the world.

IDDRI also continued its research on the international negotiations, concentrating particularly on the target of limiting global warming to 2°C and on the role of emerging countries in global climate governance and in the implementation of national climate policy. On the former point, IDDRI produced some work that was both historical and analytical, to show how the 2°C target is a joint scientific, political and media construction. This target is the indispensable guide for collective and national emission

reduction efforts, even though it has been progressively and knowingly deprived of a large part of its significance in the negotiations. On the latter point, IDDRI centred its research on the analysis of the creation and functioning of the BASIC group (Brazil, South Africa, India and China) in the climate negotiations, which reflect the growing involvement of emerging countries as co-developers of international standards.

Development paths in emerging countries

In 2010, the Climate programme continued to observe and analyse the changes taking place in the major emerging countries. Given the current and future economic growth of these countries, it is very important to monitor the changes occurring and the innovations underway (in terms of technologies, corporate strategies, public policy and foreign policy), not only because of their impact on global public goods, but also because they will either

hamper or facilitate change and innovation in the developed countries themselves.

IDDRI worked on support mechanisms for renewable energy in China, comparing the cases of photovoltaic solar energy and onshore wind farms, examining their compatibility with WTO rules and analysing their interaction with European support mechanisms. This research revealed a major difference between solar photovoltaics – China mainly supports the industrial panel construction sector, for production and export – and onshore wind farms – China also supports power generation, with a guaranteed feed-in tariff. In addition, it revealed the need for Europe to develop a more ambitious industrial policy that ensures support for renewable energy and translates into job creation rather than imports.

IDDRI also researched the incentives and methods for creating an export tax in China, as well as its impacts in some energy-intensive and high-emitting industries. This trade policy is explained first by the need to guarantee greater energy security in China, both by reducing its energy demand and by diversifying its energy mix; next, by the desire to gradually move away from economic growth driven by exports and energy-intensive industries towards a development model based on higher value-added activities and on domestic consumption; and finally, by the need to show that China is a responsible power that is taking the climate problem seriously.

Definition of indicators and international exchange of experience

A profound and widespread lack of confidence is currently one of the main obstacles to the implementation of low-carbon development strategies and to the increase in collective and individual emission reduction effort levels. This lack of confidence is twofold: a lack of confidence in the prospect of other countries meeting their commitments; and a lack of confidence in the capacity of each country to meet its target at an acceptable political and economic price.

With this in mind, and learning from the strengths and limitations of the initiative with the German and South African governments, which only includes MRV experts from the international negotiations, in 2010 IDDRI launched a learning platform whose aim is to

MIGRATION SEMINAR (BELLAGIO, NOVEMBER 3, 2010)

During the 1980s and 1990s, numerous studies highlighted occurrences of people being forced to abandon their homelands as a consequence of dam construction. Today, the attention seems to have moved on to “environmental migrants”, i.e. populations that are forced to migrate due to the impacts of climate change or other environmental degradation.

At this point in time, when major projects are soon to be launched to tackle climate change with aims of both mitigation and adaptation, we cannot exclude the possibility that such projects will also induce population displacement. Moreover, in some instances, governments have already begun to move entire populations in anticipation of future global warming impacts.

To consider these issues, IDDRI held a residential seminar in Bellagio (Lake Como, Italy) entitled “Preparing for Population Displacement and Resettlement Associated with Large Climate Change Adaptation and Mitigation Projects”, in association with the universities of Columbia (Center for International Earth Science Information Network, USA) and Harvard (School of Public Health, USA). Supported by the Rockefeller Foundation and the AFD, the seminar brought together key experts on the subject, and aimed to identify future research directions. An article summarising the work on this issue was submitted to *Science Policy*.

generate national discussions on the performance of climate policies and to supplement them with international exchanges. More specifically, the platform works on the definition of indicators – going beyond carbon accounting alone – that are useful not only for guiding climate policy but also for analysing this policy in the power generation, transport, building and industrial sectors. This platform brings together the people in charge of defining, implementing and assessing the performance of policies at the national level, and representatives of the sectors concerned, research institutes and think tanks. It is currently based on Europe, China and India, but is set to grow rapidly to include Mexico, Brazil and South Africa. Thanks to this platform, a network of practitioners and experts is taking shape, which will be in a better position to drive the climate agenda forward in each country since it uses feedback from other countries about their successes or the obstacles they encounter.

European policy

In Europe in 2010, the debate on climate policy crystallised around the issue of the move from a 20 to a 30% emissions reduction target by 2020. This debate marked an interesting and positive change of perspective regarding the way in which Europe envisages its climate policy.

Until now Europe was set on the essentially international approach of burden sharing. Although the proof of principle experiment of the adoption of the EU Climate and Energy Package encouraged the other countries to announce targets and adopt legislation, this 20-30% strategy, which conditioned the adoption by the European Union of a more ambitious target once a global agreement was reached, demonstrated its limitations in Copenhagen.

Without neglecting this international dimension, Europe is now putting the accent on two other complementary aspects: how can it meet its own emissions reduction target of at least 80% by 2050 at lower cost; and how can it take advantage of the transition to a low-carbon economy? To answer these questions, Europe must refocus on itself and conduct a cost-benefit analysis of the implementation of its climate policies.

IDDRi actively participated in the organisation of the European debate, co-organising with

the Centre for European Policy Studies (CEPS) and the Fondazione Eni Enrico Mattei (FEEM) a high-level dialogue on European policy, and directing, on behalf of Climate Strategies, an important European project on the revision of the Climate and Energy Package.

Green growth and industrial revolution

The world economy is now faced with a threefold challenge: reducing the budget deficits that have accumulated over the last few decades and have grown as a result of the economic crisis, sometimes reaching epic proportions; correcting the major global current account imbalances that interact with trade imbalances, and which are partly to blame for the financial crisis, with an excessively loose monetary policy and a lack of financial sector regulation; and reducing greenhouse gas emissions. These three challenges may partly require a common solution, hence the need for green growth.

The debate on green growth has long suffered from guesswork and confusion. In fact, this common heading covers a number of different issues that need to be addressed separately before thinking about their articulation: what does history tell us about previous waves of innovation and about the sources of growth more generally speaking? What interaction is there between investment cycles, macro-economic policies and long-term growth? What do integrated models teach us about the impact of climate policies on the rate and composition of growth? What is the relationship between climate policy and employment? What impact does climate policy have on investment, innovation and productivity? And what can we learn from this for the definition and implementation of public policy and economic instruments?

In order to provide some answers to each of these questions, in 2010 IDDRi formed a partnership with the Grantham Institute, a multidisciplinary research centre attached to the London School of Economics and Imperial College.

In Europe in 2010, the debate on climate policy crystallised around the issue of the move from a 20 to a 30% emissions reduction target by 2020. This debate marked an interesting and positive change of perspective regarding the way in which Europe envisages its climate policy.

Adaptation

Alongside its involvement in mitigation issues, in 2010 IDDRI continued to focus on adaptation to climate change issues. This field of activity was fuelled by continued monitoring of the Adaptation part of the negotiations, especially in Cancún during the 16th Conference of the Parties (COP 16) to the United Nations Framework Convention on Climate Change (UNFCCC). At the end of the first decade of action, the Cancún Agreement put adaptation into a new perspective. It launched the Cancún Adaptation Framework, proposing a broad list of potential adaptation measures and promoting national approaches and planning, based on the experience of National Adaptation Programmes of Action (NAPAs). More importantly, it created an Adaptation Committee that will be the cornerstone of this effort to ensure coherence. The Committee will act as a knowledge sharing platform, a facilitator, a pool of expertise and a mechanism for monitoring the global adaptation effort. On the whole, the issue of “adaptation” gained in maturity in Cancún.

In the field of adaptation to climate change, IDDRI questions both the processes at work and the suitability of possible strategies. Although the international level was the preferred angle of entry, IDDRI rapidly realised that it was more important to understand the adaptation or non-adaptation mechanisms at work “in the field” in order to make a useful contribution to international negotiations. This is why, alongside its think tank activities, IDDRI has developed pure research work, particularly within the framework of the CIRCE project, first by scaling down its approach (local situations), and second, by combining basic and applied approaches (case studies). One of its main focal areas is the analysis of the factors that determine vulnerability and adaptation capacity. IDDRI has thus developed a framework for research that is now its common theme: it has already been the subject of different publications in scientific journals and in grey literature, and is the main focus of an ambitious research project submitted in 2010 to an international backer. This scientific approach enables IDDRI to explore new partnerships in France (universities) and abroad (Bangladesh, Sweden/United States, Fiji). The basic objective is to inform discussions at scales that go beyond case studies, but which are nevertheless based on empirical knowledge. ■

ANTICIPER POUR S'ADAPTER (“ANTICIPATION FOR ADAPTATION”)

In this book written for the general public (the first in French on the subject of adaptation) and published by Pearson, IDDRI (Laurence Tubiana, François Gemenne and Alexandre Magnan) takes as its point of departure the fact that major climate change is occurring at an unprecedented pace – and that some of its consequences are already irreversible. It also calls for proactive adaptation policies that take into account the eminently multidimensional nature of territories and that must preside over the definition of realistic strategies.

The book is divided into three main sections. The first analyses adaptation from a conceptual perspective and provides an overview of climate impacts to come and their effects on societies throughout the world. It then addresses the concept of vulnerability. The second part approaches adaptation as a political issue through different subjects: international negotiations, linkages between adaptation and development, and the issue of financing. Finally, the third part focuses on the implementation of adaptation at the national and local levels, as well as in the fields of migration and tourism.

European issues

Climate Strategies

Coordinated by IDDRI on behalf of Climate Strategies, this project gathers around ten research institutions that are among the most influential in Europe.

The project is built around two main issues: (1) the identification of policies that should be implemented quickly to reduce the cost of achieving the European objective of at least an 80% emissions reduction by 2050, and (2) the identification of policies that would enable Europe to profit from the co-benefits of climate policies, such as: economic growth driven by technological progress, energy security and employment.

The project has engendered extensive consultations with Member States, the European Commission, representatives of the electricity, industrial and transport sectors, and NGOs. Also, numerous workshops on the key issues were held in several European capitals for the presentation of interim results and discussions.

The project ended, just ahead of the European Council in June 2011, with the formulation of precise recommendations on the various elements of the energy-climate package, including:

- With regards to the permit market, it is necessary to discuss both the definition of an emission reduction goal for 2030 and the lowering of the 2020 emissions cap to improve the instrument's predictability and to ensure that investment decisions, that will soon be made to renew electricity production capacities, will be consistent with the long-term objective;
- In relation to sectors outside of the permit market: the full range of European instruments for financing the reduction of the energy demand must be better utilised, especially in Central and Eastern Europe, for example a single market for the energy efficiency of equipment, a European budget to finance infrastructure...
- Finally, it is essential to better exploit the potential synergies between the supply (industries within the ETS such as cement and steel) and demand (the construction and transport industries) for low emission technologies, particularly in a context of strong international competition regarding supply.

European dialogue

The European dialogue conducted by IDDRI with CEPS (Centre for European Policy Studies) and the FEEM (Fondazione Eni Enrico Mattei) is based on the notion that the European debate would benefit from the greater consideration of specificities and of the potential for cooperation among Member States. Three sessions were held (in Madrid, Warsaw and Venice) to help develop better links between individual specific issues and the European agenda. The meetings brought together representatives of Member States (with a large and valuable participation from new Member States); the European Commission; the electricity, industrial and transportation sectors, and think tanks and NGOs.

Discussions have focused on both the revision of the Energy and Climate package in general and on transport policies in particular, which constitute a real blind spot for European climate policy. On transport issues, work has enabled progress on both vehicle efficiency and electrification, and on inter-modality.

Ultimately, the European dialogue will have been able not only to demonstrate how to improve the way in which European policies could be based on the current transformations within Member States, and show how such changes could be accelerated, but it will also strengthen the coherence between the different sectoral and thematic strategies in Europe, such as: the Roadmap 2050 emissions reduction guide, the energy efficiency plan, the White Paper on transport, the EU budget and more. ■

The “Climate controversies: Science and politics” international conference

The “Climate controversies: Science and politics” conference, held on October 27-29, 2010, was a first for two reasons: it was the first international conference on this subject following the controversy surrounding the IPCC’s work in the wake of the Copenhagen conference in late 2009; and secondly, because the conference, organised in collaboration with the *Université libre de Bruxelles* (ULB), was held at two different locations, Brussels and Paris.

The event brought together the main international experts in this field (Naomi Oreskes from the University of California, James Hoggan of James Hoggan & Associates, Bruno Latour from Sciences Po, Clive Hamilton of the Charles Sturt University, among others) and a panel of journalists. In total, more than 450 people attended the various parts of the conference.

The conference provided an objective picture of the content and form of the climate controversies and on the actors involved. The panels addressed not only the scientific aspect of the controversies but also, and especially, the logic underlying them and their implications for policy and public opinion.

The first panel focused on how these controversies were addressed by scientists. Jean-Pascal van Ypersele (IPCC Vice-Chair) thus explained how the uncertainties were taken into account in the validation process of assessment reports, and he discussed possible reforms to the IPCC in light of the recent controversies. Valerie Masson-Delmotte, Hervé Le Treut and Frank Pattyn then described the uncertainties that continue to cause debate, but stressed that these uncertainties were inherent to science.

A public roundtable bringing together journalists from different media outlets (*Le Monde*, *Libération*, *Le Soir*, *La Libre Belgique*, *Science*) then highlighted the importance of national contexts in the way in which these controversies were relayed by the media: the personality of someone such as Claude Allègre is thus, for example, a key element of the debate in France. One issue, however, united all of the journalists present: an inadequacy in the scientific training of journalists and the need for such controversies to be addressed by scientific rather than political journalists.

The second day provided an opportunity for an overview of the agents involved in the controversy. Accordingly, James Hoggan, Paul Edwards and Olivier Godard spotlighted the networks responsible for generating the controversy and their links to the fossil fuel industry and to conservative groups, although, as highlighted by Olivier Godard, these relationships are considerably less significant in France. François Gemenne focused on the political role played by the IPCC in public decision-making processes on climate.

Subsequently, the impact of these controversies on public opinion and politics was analysed: Sylvain Huet, a *Libération* journalist, highlighted the difficulties faced by science journalists, while Jean-Paul Bozonnet presented the results of a pan-European opinion survey conducted after the recent controversies. Clive Hamilton analysed the cognitive processes that led to the denial and scepticism, while Amy Dahan stated that while the controversy did not have a direct impact on climate negotiations, it did however signify an end to a cycle of international cooperation on the subject.

The conference then moved to Paris, where two roundtables addressed: the links between ideological divisions and scientific controversies (do controversies arise from political and ideological divisions or, on the contrary, do they cover up existing divisions); and the visualisation and representation of these controversies in the public arena (how does our perception of the problem influence the necessary solution to the problem?), respectively.

A collective work, to be published by the Presses de Sciences Po in early 2012, will provide a report of the conference. ■

HIGHLIGHT

INVULNERABLE

French climatologists play a significant part in the work of the Intergovernmental Panel on Climate Change (IPCC), particularly in contributing to global modelling efforts and projections of future climate change. This research constitutes a source of information that is still largely under-exploited at present, particularly with regard to the management of industrial activities. With this in mind, several climate science research centres in France – the European Centre for Research and Advanced Training in Scientific Computation (CERFACS), the Institut Pierre Simon Laplace (IPSL) and Météo France – called on IDDRI to organise discussions with its industrial partners on vulnerability to climate change.

The INVULNERABLE (INdustrial VULNERABiLity) project was thus launched in 2006. It adopted an innovative methodology to express global industrial vulnerability issues in terms that climate models could help to clarify. Due to different frameworks for thought and action, interaction between industries and climate scientists is complex. The main aim of the programme was to test whether it was possible to establish long-term discussions between these two communities; discussions that would enable them to work together to define indicators of vulnerability to climate change. These indicators, developed in collaboration, would need to respond to the requirements defined by industries as well as being informed by climate models. A second objective was to determine whether the definition of such indicators and the use of in-depth, dedicated climate modelling was a real requirement for industry, with a view to adapting to climate change.

INVULNERABLE took a broad approach to the vulnerability of industrial operations via five key aspects: the availability of resources, the design of installations, demand, managing industrial equipment, and industrial climate incidents. Three case studies were conducted between 2006 and 2010: the first concerned the vulnerability of gas networks to cold waves; the second focused on intense rains and their effects on the management of water purification plants; and the third

dealt with the impact of temperature variations on the functioning of heating networks. They showed that discussions between climatologists and industries on issues concerning vulnerability and adaptation to climate change were possible: defining an indicator that is useful to industry and can also be used by scientists is not a pipe dream, and there are real advantages for both parties. For each case study, the latest developments, the scientific methodology adopted and the results obtained were all summarised in technical reports.

In 2010, the project entered the age of reason. Its leadership was transferred to the scientists, who are now in charge of organising discussions and coordinating studies. IDDRI continues to provide support, for both management and facilitations aspects. Moreover, INVULNERABLE has been recognised as a French trailblazer for climate services, contributing to a global effort initiated a year earlier by the World Meteorological Organisation (WMO) “to strengthen production, availability, delivery and application of science-based climate prediction and services”. The team thus obtained funding from the French National Research Agency (ANR) to conduct a prospective study on the creation of a French platform for climate services, taking advantage of its lead in the field. The challenge is to identify the potential users of this type of service as well as their need – whether expressed or not – for access to dedicated climate data. The aim of this new project is to lay the foundations for a future climate services sector in France, which is essential for adapting our societies to climate change. ■

Urban fabric

The city, the subject and object of sustainable development

Local governments and other stakeholders involved in urban planning are raising their voices to demand greater recognition and appreciation. Since cities consider themselves as having a number of effective incentives, and therefore that they constitute a relevant frame for public action, they want to participate in the definition of national public policies and international agreements. However, as a highly complex entity, the city is often poorly understood. Urban developers (in the broadest sense) are therefore calling for analysis efforts to be directed towards a better understanding of the functioning of urban dynamics. Given the potential path dependencies, it appears imperative to inform and support these stakeholders in their combined efforts to redirect and govern urban dynamics towards greater sustainability.

Satisfying urban needs in a sustainable way and the avoidance of two-tier cities constitutes a major worldwide challenge.

It is clear, however, that city development, regarded as a collective action, remains inadequately sensitive to scientific messages on sustainability. Nearly twenty years after the Rio Earth Summit (Brazil, 1992), the individual and collective responses have so far fallen very short of the identified challenges. Clearly, knowledge in itself is not sufficient to develop a collective will to change attitudes and behaviours. Three lines of enquiry may be proposed to provide a better understanding of the unsatisfactory transmission from knowledge to action:

- The absence or failure of mechanisms to link knowledge and action: “the house is on fire, but we turn the other way”;
- The city is a complex object: while the urban world is marked by a great diversity of urban situations (static), it is certain that the urban fabric processes (dynamic) that

generate these particular situations are even more specific; furthermore, the factors determining the specific circumstances of each city (urban structure, demographic and economic dynamism, etc.) are, firstly, much more complicated to analyse and secondly, more difficult to influence through public policy;

- The active resistance to change, the necessity of which is claimed by some but in fact contested by others (note here that the rule of law, including environmental law, sometimes acts as a restricting factor).

It is this interface between the spheres of knowledge and of collective action and behaviour that constitutes the backbone of the “Urban Fabric” action programme that was launched by IDDRI in 2009.

Today, companies involved in urban fabric (project promoters, developers, builders, planners, investors, producers and managers of urban services) face a double challenge: firstly, to fight against urban sprawl, the diffuse town and scattered urbanism, and secondly, in a way that is partially linked to the first challenge, to stem the loss of social cohesion that is developing, in particular due to social segregation caused by land and house prices. Satisfying urban needs in a sustainable way and avoiding the risk of two-tier cities constitutes a major worldwide challenge.

These two challenges are faced collectively by cities’ stakeholders and are directly related to the objectives of sustainable development in its three components. In the case of France for example, these challenges have led, in a complex way that is often not easily interpreted, to the two “Grenelle I and II” laws, which will become progressively detailed by numerous application decrees with various injunctions in terms of energy consumption, urban forms and the limitation of greenhouse gas emissions.

This trend is developing in a context of abundant liquidity, but also one where public budgets (national and local) are being constrained by and in addition to the existence

1. Quote taken from a speech by French President Jacques Chirac during the 4th Earth Summit in Johannesburg (South Africa).

of a general economic crisis. This limits the leeway of traditional stakeholders (planners, project promoters and builders) who must face significant additional costs – and financing difficulties, ultimately encouraging them to think in terms of the value chain.

In this context, in 2010, the Urban fabric programme confirmed its general objective to clarify the urban fabric mechanisms – considered as a complex set of interactions between stakeholders and diffuse urban production processes, evolving within a framework defined by market mechanisms, technical pathways (constraints and opportunities) and public interventions (regulations, economic incentives and investments, etc.). This clarification aims at facilitating a shared understanding of problems, positioning them in a global perspective and supporting the transition to a sustainable trajectory. Thus far, 2010 has been the year for the implementation of the pluriannual work programme discussed and validated in 2009. It has also been the year in which the four cross-cutting research fields that structure the whole programme were validated, namely: urban fabric stakeholders; public policies and urban development trajectories; the legitimacy of urban sustainability public policies; and the role of cities and their networks in global governance.

Urban Fabric stakeholders

This thematic concerns the analysis of the distribution of powers, skills and responsibilities (who governs, and what do they govern?), the way these elements are used (how?), the rationalities at stake and the elements that structure these rationalities (why?), particularly in characterising the relationship between the decision-making and technical spheres.

In 2010 IDDRI developed a number of studies in this field, focusing on the financialisation of property and its effects on city structuration, with the risk of failure that was vividly illustrated by the sub-prime crisis in the United-States. IDDRI has also conducted a research project on funding access to drinking water and to sanitation services in towns in developing countries, based on case studies in Africa and Asia. This project is managed in partnership with the French Research Institute for Development (IRD) and focuses on models of long-term cost distributions be-

tween stakeholders and on the socio-political dynamics that are at the origin of these compromises. From an action-research perspective, IDDRI has supported the establishment of the Bogota-Cundinamarca (Colombia) regional urban observatory. Finally, in partnership with the University of Berkeley (California, USA) and Veolia Transport, IDDRI has conducted a thorough study of the new Californian smart growth laws (AB 32 and SB 375) that integrate CO₂ emissions into political decision-making in terms of urbanism and transportation.

Also, the Energy and Urban Innovation report for the World Energy Council (WEC) was written in 2010, in collaboration with a team of the Cerna-Mines Paristech research laboratories. In the report IDDRI worked on the capacity of cities to cope with the challenges of energy sustainability, whether in a context of rapid urbanisation, which characterises a large number of cities from developing countries, or in one of low growth that is typical of Northern cities. One of the report's conclusions is that some technologies are already mature and usable, but that political and economic tools are required to ensure their successful implementation, demonstrating that economic profitability alone is rarely sufficient due to immature and imperfect markets, major transaction costs and significant coordination and planning problems. The necessary institutional innovations to enable the adoption of mature technical solutions, which therefore are often as important as the technical developments themselves, must be adapted to the wide diversity of urban contexts. For instance, to address the challenges of improving the thermal performance of buildings, of reorganising bus networks into BRT (Bus Rapid Transit) systems and of decreasing energetic poverty, it is clear that policy packages must be implemented to bring together financial support, regulatory actions, institutional innovation, planning and technical solutions.

Public policies and urban development paths

The central issues are: which regulations should be applied to which objects? For what purpose and according to which development path? The following issues need to be addressed:

- The measurement of “sustainable development” performance in cities and in the management companies that are dedicated to urban services;
- The desirable and possible paths for achieving sustainability targets;
- The instruments, and therefore the signal quality given by public policies, to enable developments in the urban fabric. This last point immediately raises the issue of temporal linkage: how can public intervention satisfy the immediate demands for sustainability while also providing a signal and acting as a key organising factor for the long-term?

While the research projects are numerous, the issue of the criteria and indicators from which “sustainable development” performance in urban areas may be judged, evaluated and monitored remains unresolved. IDDRI is helping to find answers to this question in the framework of a research project launched in late 2009 by the French National Research

Agency (ANR, within its Sustainable Towns Programme) on local climate schemes and the climate integrated territory approach (AETIC). This research project is conducted in partnership with LEPII (Production and international integration economics laboratory), CSTB (Scientific and technical centre for building), a laboratory from the National Center for Scientific Research, Veolia and ENERDATA.

Urban fabric is characterised by a cumulative effect of public and private decisions on a territory, determining the possible development paths, but also the irreversibilities. These issues are analysed in particular through: a PhD thesis in Economics which focuses on the costs of transition towards low carbon urban systems; a project on the transition to low carbon buildings in Chinese cities; and through the development of “factor 4” scenarios for heating and domestic hot water in the French housing sector. The latter study has been the subject of an issue of *Cahiers du CLIP* (Energy and environment prospective engineering club) published in French by IDDRI: *Habitat Factor 4: Study of the reduction of CO₂ emissions linked to thermal comfort in housing by 2050* (see Highlight p. 26).

The year 2010 has also provided an opportunity to enhance the work of 2009, in particular the Working Group on “Energy efficiency and urban development” launched in 2008 by the China Council for International Cooperation on Environment and Development (CCICED) and chaired by Laurence Tubiana, director of IDDRI, and Professor Jiang Yi, director of research buildings at Tsinghua University in Beijing. Many events were organised around this report, notably one at the Collège de France in Paris.

Legitimacy of urban sustainability policies

The central questions concern the renewal of the legitimacy of political action: how does sustainable development renew the dialogue, challenges and practices of action justification, especially public action? What forms of legitimacy are mobilised? What are the justice criteria that can be mobilised when changes are made and for the redistribution of gains and losses? This theme also focuses on the integration of non-public stakeholders, including those from civil society, in the

CITIES: CHANGING DIRECTION

The 2010 edition of *A Planet for Life*, the annual series on sustainable development published by IDDRI, AFD and TERI, focused on cities as areas and actors that are on the frontline when it comes to sustainable development. Indeed, the construction of “sustainable cities” is one of the key challenges of the 21st century.

At a time when over half of the world population now lives in urban areas, the evolution of cities is often contrary to the environmental, social and economic demands of sustainable development. Wealth and power are particularly concentrated in urban centres, or even in specific urban districts, contributing to territorial fragmentation. A division can therefore be seen between the “legal” city, which is well-equipped (infrastructure and services), modern and productive, and the rest of the city, which is illegal or “informal”.

However, cities are also where the political, social and environmental responses to the challenges of the future are sought on a day to day basis. They act as laboratories for testing technical approaches and new public policies. The major Southern cities of the future could play a decisive role in this path change if they develop standards that differ from those passed down from the last century.

definition of public policies and hence the co-construction of a city.

In 2010, this line of thinking was fuelled by the ongoing PROMOV research project, “Prospective lifestyles in urban areas by 2050”, in partnership with research laboratories in sociology, geography and urbanism, and *Futur Facteur 4* and *Energies Demain*.

The city, an international stakeholder in sustainable development

Firstly, this strand of work enables the analysis of the political mobilisation of cities, through the different city networks, but also on the basis of individual states: what relationships exist between the city, as a place of governance, and other organising powers? Also, what relationships exist between the different decision-making areas and technical areas?

In 2010 this topic was the subject of a *task force* for the European Commission, centring on the support that Europe could bring to local climate initiatives, chaired by Laurence Tubiana, and led in partnership with the Centre for the European Policy Studies (CEPS).

In addition, in collaboration with TRL (Transport Research Laboratory), TERI (The Energy and Resources Institute), Veolia Institute, Veolia Transport and ITDP (Institute for Transportation and Development Policy), IDDRI has implemented a partnership with the Greater Mumbai Authority to develop and test MRV (measurable, reportable, verifiable) methodologies that, finally, allow cities access to carbon finance. This work led to a side event at the UNFCCC COP 16 held in Cancún

(Mexico) in December 2010, and generated several publications.

Through this line of enquiry were then examined the lessons that can be drawn from the implementation of the sustainable development concept in urban territories, to enable global governance for sustainable development to be built. The city, a complex system, can indeed also be regarded as a laboratory for sustainable development, i.e. a place for experimental instruments and institutional structures.

Finally, in 2010, those involved in the Urban fabric programme have continued to participate in the editorial board of several scientific and professional journals (*Ciudad y Territorio*, *Les Annales de la Recherche Urbaine*, *Urbanisme*, *Journal of property research*, *Revue d'économie publique*, *L'Observateur de l'immobilier*) and to teach in various universities: École des Ponts, Abu Dhabi Sorbonne University, Sciences Po, Paris 1 University, Los Andes and Externado Universities (Bogotá, Colombia).

The urban fabric is characterised by a cumulative effect of public and private decisions on a territory, determining the possible development paths, but also the irreversibilities.

FORECAST ON DECISION-MAKING TOOLS

As scientific instruments capable of producing knowledge on urban systems and decision support tools used in political planning contexts, urban simulation models represent a dual area of research for the urban fabric programme. Modelling is a research method used by IDDRI to analyse a territory (AETIC project in Grenoble). This involves using an integrated modelling system (TRANUS) to understand the mechanisms of urban change, to test policies and to quantify results. The aim is to inform discussions on cost-effective emissions reduction strategies in the field of transport and urban planning for the Grenoble urban agglomeration. But the modelling exercise itself is also examined, first by repositioning it among other tools and approaches, and second by questioning its suitability in terms of accompanying the local authorities' planning process and influencing decisions. The organisation of a workshop between modellers is one example of IDDRI's work in this field.

Cutting CO₂ emissions from housing by 75%

The aim of the French Grenelle environmental laws of 2009 and 2010 is to reduce energy consumption in France by 17% by 2020. A large part of this effort should be concentrated in the building sector, with a 38% cut in energy consumption in the housing stock. The path needed to achieve this is still under discussion and it is likely that the measures provided for in the Grenelle 2 law will not be enough to meet the challenge. The study on cutting CO₂ emissions linked to thermal comfort in housing by 2050, published in the *Cahiers du CLIP n°20* in November 2010, is intended to contribute to this debate¹.

This work to develop 75% CO₂ emissions reduction scenarios in the housing sector in France for 2050 follows on from previous studies conducted in this sector by the CLIP (*Club Ingénierie Prospective Énergie et Environnement* - Prospective engineering, energy and environment club, led by IDDRI). The first, published in 2001, highlighted the importance of renovating existing buildings in order to achieve significant emissions reductions in housing stock that has changed very little. Three other studies followed, on solar thermal energy, cogeneration and heat pumps in housing. When the Grenelle initiative was launched, the CLIP decided to instigate this more comprehensive study, making an in-depth assessment of the energy savings that could be made by renovating the housing stock according to its characteristics, the nature of the possible methods of rehabilitation, the rate required, and finally the choice of energies mobilised to meet this reduction target.

The study counts on controlled urban development, in reference to the Grenelle objectives, implying a continuous urban fabric on the outskirts of cities making it possible, in certain scenarios, to ensure the significant development of district heating networks.

The study presents a unique scenario concerning the evolution of energy performance in the housing stock, in terms of both renovation and the widespread use of BBC and BEPOS (positive energy house) standards in new housing.

This scenario, which aims to use to a large extent the energy saving potential in existing housing, includes measures for rehabilitating all housing built before 2001.

On the other hand, alternative scenarios on the energy mix for housing are proposed, each one introducing a different hierarchy between renewable energy, natural gas and electricity. Finally, an assessment of each scenario is made in terms of CO₂ emissions, accompanied by a sensitivity analysis according to the carbon content per kWh of electricity. Achieving this 75% cut therefore largely depends on renewables in the form of wood energy, solar thermal power for domestic hot water and heat taken from the environment using heat pumps.

Whatever the scenario, the study stresses the scale of the change needed in the housing stock in order to achieve a 75% cut in CO₂ emissions along with the importance of using strong public policies to ensure a sustained pace of rehabilitation. Admittedly, the Grenelle target (reducing energy consumption for heating and domestic hot water by 38% by 2020) is achieved in all scenarios, and improvements in the building sector enable a 50 to 60% reduction in heating requirements by 2050. But this result is achieved at the price of a sustained pace of rehabilitation of 400 000 houses per year.

The findings thus highlight the importance of large-scale planned rehabilitation operations, going well beyond the incentive instruments currently available. ■

1. http://www.iddri.org/Publications/Les-cahiers-du-CLIP/Clip20_fr.pdf

Cities and climate change adaptation

Through the concentration of inhabitants, economic activities, infrastructure and material assets on their territories, cities possess a particular vulnerability to climate change. The adaptation of cities to an increase in the intensity or frequency of certain climatic events therefore constitutes an important issue for the future of our societies.

Within its capacity to consider and propose recommendations on preventative and adaptive measures that are necessary to mitigate risks related to climate change, the *Observatoire national sur les effets du réchauffement climatique* (ONERC) has asked two research organisations, the *Centre international de recherche sur l'environnement et le développement* (CIRED) and IDDRI, to compile a summary of city vulnerabilities and provide an overview of the state of adaptation policies of international and French cities. This summary, entitled "Cities and Climate Change Adaptation", was complemented by an inventory of the French research studies that are engaged in the issue of cities and climate change, for the report to the Prime Minister and Parliament.

Over 15,000 copies of the report, published by *La Documentation Française* and translated into English, were distributed to French elected officials and technical experts. It was also presented in many arenas, in particular during the COP 16 in Cancún in December 2010.

Some of the key ideas put forward in the report:

- The most striking specificity of the impacts of climate change in urban areas is their interdependence. As cities are highly integrated systems, the impacts in different sectors interact and must be considered in a holistic manner; a sector-by-sector approach is therefore particularly unsuitable.
- Climate change acts mainly by exacerbating existing problems. For the short and medium-term, with the exception of the most extraordinary extreme events, it is rarely the

main factor of environmental pressure. This suggests that we should start with the implementation of no regrets adaptation measures, which enable the existing state of affairs in cities to be improved, while reducing future vulnerability to climate change.

Other measures may however become necessary in regard to long-term considerations. In this instance, a review of the existing vulnerabilities is an insufficient basis for an adaptation strategy, and specific measures must be implemented to address potentially unprecedented impacts. For example, major planning development projects create long-term irreversibility.

In the short-term, it is useful to consider from the outset the origin and the development of vulnerability. The increased risk observed today, which accounts for the rise in losses attributable to natural disasters, has specific causes that are linked to current socio-economic and demographic developments (population migration towards areas at risk, land shortage, the economical and political costs of risk reduction measures, the overuse of water etc.). Rather than simply seeking to reduce the risks, one must consider the factors that explain the increased risk and address their root causes. ■

Governance

It is not difficult to claim that a forecast for turmoil in world events was proven accurate, when there are no sources to confirm that such a prediction was genuinely made. Eight years ago, IDDRI predicted that it would manage to nurture, through research and exchanges with other think tanks, its intuition that emerging countries were one aspect of the global problems of our time, but also a part of the solution to these issues. There are no examples of sustainable governance of global public goods – of climate or biodiversity to name two of the most familiar examples – that do not closely integrate emerging countries. In 2010, such intuition looks trivial. Emerging countries, which are unquestionably new economic powers, are acquiring an essential attribute of “governmentality”: power. They have decisive power over whether agreements are signed or not, and power to transform the very ways in which agreements are negotiated and to dictate the content of such agreements. The paradox is that Europe, after years of experience working with BICS (or “BASIC” i.e. Brazil, South Africa, India and China), seems to be lacking, as much today as it did eight years ago, in the diplomatic contact with these countries regarding the environment and the economy. Self-appointed heir of the institutional heritage of the Rio Earth Summit (1992), Europe is a victim of the summit’s weakening influence and gradual obsolescence. Leadership through example, on which Europe has explicitly built its doctrine, has found its limit in the competitive exemplarity – or, in reality, competitive exemplarities because each country undertakes a sovereign construction of its policy – produced by emerging countries over the last three years.

Financial governance and the convergence of emerging countries

In 2010 it became evident that the recovery plans implemented after the 2008 financial crisis had not succeeded in halting it. The euro zone remains weakened, with some

countries such as Ireland, Portugal and Spain having levels of public debt and current account imbalances that are incompatible with the high value of the euro desired and maintained by Germany. The unemployment rate in the US continues to oscillate between 9.5 and 10%, i.e. twice the level it was at two years ago. At the same time, China’s growth rate is close to double digits, India’s exceeds 8% while Brazil continues to grow at 7%. Europe remains below 2% and the US lies just above this threshold. A powerful factor of economic convergence, the crisis has reshuffled the cards. The most striking fact is not the disparity in the exposure to the crisis, but its political effects which have positioned emerging countries to gain even faster access to power than the current framework of governance had hitherto allowed.

The causes of the crisis are multiple, but all derive from the combination of an excess of liquidity from the East and poor governance in the West (note that the North-South dialectic is now obsolete)¹. The history appears simple. China’s manufacturing output that is exported to the United States and Europe enables these two regions to contain inflation on the goods market. The Central Bank therefore sees no need to raise its key interest rates – let us remember that the primary objective of these rates is to control inflation (the sole objective in the case of the ECB). Low interest rates increase the demand for credit. Inflation remains under control because the liquidity obtained goes into asset markets with high returns – financial and property securities – the value of which increases mechanically: the inflation is transferred towards these markets. Meanwhile, the Chinese trade surplus increases the currency reserves of Beijing, which recycle them in US treasury bonds. China thus finances the trade deficit of the US, its largest customer. The

¹ See in particular Overholt W.H. (2010), “China in the Global Financial Crisis: Rising Influence, Rising Challenges”, *The Washington Quarterly*, 33(1): 21-34.

purchase of treasury bonds keeps US interest rates at low levels, helping further to stimulate credit. In the absence of visible inflation (excluding property and financial assets), the Federal Bank keeps key interest rates at low levels, which again stimulates the demand for credit and defers the excess liquidity into asset markets: this is how economic bubbles are created and flourish. While all economists are certain that every bubble will eventually burst, the problem is that they never know when.

According to the view of Washington, the low value of the yuan has indeed maintained and probably exacerbated the US trade deficit and, through a ripple effect, household debt. Americans save too little and they borrow; the Chinese save a lot, for the education of their children, for their health and retirement, in a system where the state provides nothing for such things. It is domestic savings that today gives China its strength and resilience, just as such savings were critical in the emergence of the Asian Tigers thirty years ago. Debt is, conversely, the Achilles heel of developed economies. Today, savings and currency reserves in China continue to grow. Within the framework of financial governance that has remained sovereign and national, capital flows throughout the world are likely to remain unpredictable and to encourage herd mentality. The recovery measures implemented have not solved any aspects of the overall problem, even if individual governments can claim to have limited the damage and, in the case of emerging economies, to have accelerated recovery by establishing impressive packages of countercyclical measures. Since the 1990s, the governments and monetary authorities of emerging countries have become much more credible and strategic, particularly in Asia and Latin America where progress has been dramatic².

An official indication of the change in status of emerging countries is the enlargement of the G8 to become the G20. It is also reflected in the reform of international financial institutions. Indeed, it was under the anticipated impulsion of the G20 that in November 2010 the Executive Board of the International

Monetary Fund proposed to its highest decision-making body – the Board of Governors – the revision of the total amount of quotas and their distribution among countries. The reform package, once approved by the Board and implemented, will effectively double the total quotas and reflect the changes in the relative influences of member countries in the global economy.

Sustainable development, facing the test of globalisation

Governance of sustainable development, that was institutionalised at the 1992 Rio Earth Summit and through its three conventions, has undergone profound transformations over the last decade, marked both by a broad dissemination of the idea of “sustainable development” in the discourse, and unsatisfactory, if not disappointing, results. While, in Nagoya, the Convention on Biodiversity was able to postpone the deadline for an evaluation of its own performance until 2020, the Convention’s achievements on desertification have been virtually non-existent, while the Climate Convention has thus far failed to produce a treaty, with a sufficient level of credibility, that commits all parties to limiting the temperature increase to 2°C, contrary to the official statements of the Copenhagen agreement in December 2010. Beyond Rio, the appropriation of sustainable development by institutions such as the WTO – a term which appears in the preamble to the WTO agreement as an additional objective to that of the GATT from 1947 – or by companies, has not caused radical change in trade modalities nor of the principles of accumulation.

There are numerous possible causes for the mixed results of the Rio Agenda. The identification of these causes, the assessment of their relevance and the search for ways to address them, and to make the “sustainable development” concept more operational and efficient, are at the core of the IDDDRI Governance Programme. One dedicated project, financed by the European Commission and bringing British (London School of Economics and Political Science) and German (Freie Universität Berlin) teams together with IDDDRI, will conclude with a special conference in 2012 on the occasion of the twentieth anniversary of the Earth Summit.

The main reason for the mixed results of the Rio agenda (1992) is probably the con-

2. Bellocq, F-X, and Zlotowski, Y. (2010), « Les pays émergents dans l'après-crise : l'intégration financière en question ? », mimeo, Afd-Coface, October 2010.

cept itself, which is in turn vague, contradictory and inoperative. Globalisation is the next most significant cause: anchored to sustainable development by a reinforcing programmatic link, globalisation has in fact, through its equivocal effects, broken Rio's founding idea of mutual support between three pillars - economic, social and environmental. It has thus renewed the conflict between these pillars, both within individual countries and among states, depending on the respective priorities assigned by each. Finally, emerging countries have appeared on the scene. Due to globalisation and the rapid extraversion of their economies, emerging countries have experienced double digit growth rates

which, through their environmental effects, now designate them as new contributors to the overall global problems set out in the Rio agenda, and simultaneously they have become new powers with the ability to innovate and renew the foundations of a cooperative regime. The Nagoya agreements, and even more so those of Cancún, were largely the result of emerging powers taking the initiative to write the texts (Cancún) and/or facilitate unanimous³ approval by attenuating the positions and demands of developing countries. Are finance and economy no longer the only areas where emerging countries exercise their power? Global questions, and climate issues in particular, have become a stage and an inducement, used as such by a proportion of the delegation and negotiators to achieve domestic political objectives, to change the balance of power and to make decisions according to their conception of the terms of accession of these countries to a new modernity.

Potentially conflictual rather than gratifyingly consensual, sustainable development is thus undergoing major reorganisation. In 2010, IDDRI continued and deepened its research on the determinants and major principles of such a reorganisation by gathering and analysing empirical data on the political innovations of India, Brazil and China, as part of a three-year project funded by the National Research Agency, concluded by a symposium in March 2011 (see Box); and, through the establishment of a new survey of French public service elites, to better understand the factors of inertia and change in the implementation of climate policies in France and across Europe – taking carbon tax as the textbook example. Finally, since sustainable development governance can no longer be considered independently from globalisation governance, IDDRI includes all these studies and results in an exploratory reflection on “sustainable” regulations for commodities and raw materials markets, and on the reform of international institutions, in particular the World Trade Organisation. ■

THE PROVISIONAL AND CRITICAL REVIEW OF THE MILLENNIUM DEVELOPMENT GOALS

The year 2010 marked the tenth anniversary of the adoption of the Millennium Development Goals (MDGs) by the United Nations. The UN has undertaken an assessment, five years before the deadline that signatory countries have committed to observe. This assessment revealed mixed results: it seems unlikely that all targets and objectives will be reached, while some encouragement can be taken from the level of progress made in a large number of countries and in certain areas. However, some questions and paradoxical situations have emerged. Thus, countries where poverty has significantly declined – as is the case in China and Brazil in particular – are those where official development assistance (ODA) has had little contribution, if any, to the successes achieved. Most of the credit for this improvement is attributable to domestic policies that are financed by growth, and not to the generosity of OECD taxpayers. The results confirm that the problem of extreme poverty will not be resolved without the sustainable “development” of economies. Development aid policies cannot therefore be limited to the reduction of poverty, or to the MDGs being considered as a whole, as a series of unconnected indicators. Sustainable development policies, which are needed as much in very poor countries as elsewhere, must be devised and tested to embody these objectives in a sustainable and coherent framework. The French Ministry of Foreign Affairs, the *Agence Française de Développement* (AFD), the Foundation for International Development Study and Research (Ferd) and IDDRI have debated these different elements in the framework of the IDGM (Initiative for development and global governance) during the conference “On route to the MDG summit” organised in May 2010.

3. Almost unanimous at least, Bolivia refusing to sign the text on climate that was approved in Cancún by all other parties to the UNFCCC.

HIGHLIGHT

Towards the taxation of Chinese CO₂ emissions

China is facing unprecedented challenges in terms of energy availability, mitigation of greenhouse gas (GHG) emissions and economic growth. By 2020, its deficit in coal and gas could reach 25% of its domestic production and its dependence on oil imports may grow to 60%. In the absence of a proactive mitigation policy, China's CO₂ emissions related to energy consumption will increase by 2.8% per year until 2030, compared to an increase of only 0.1% for European Union countries. China's new growth path must become a much lower carbon one, both for global reasons of limiting climatic warming and for more self-interested concerns of energy sovereignty and energy economy. To meet these challenges, China has set targets to reduce its carbon intensity (by about 40 to 45%) and to increase the share of renewable energies in its energy "mix" (+15%) by 2020. The means to achieve these objectives, as well as the targets themselves, are among the new ideas currently under discussion. In addition to traditional so-called "command-and-control" measures (Beijing decides, the economy follows), new, complementary instruments are being considered, including market instruments, in accordance to the wishes expressed by the Central Committee of the Communist Party of China in December 2007.

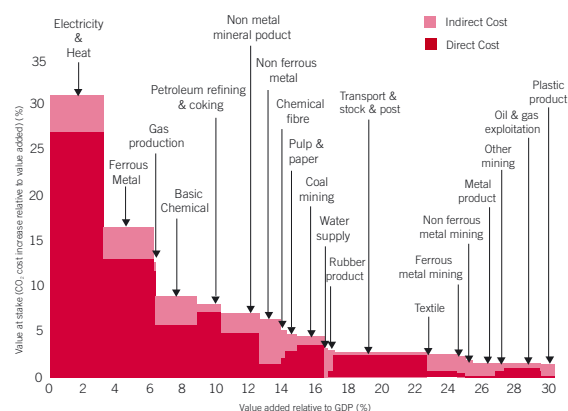
Since then, IDDRI has worked to identify, understand and assess market policies that have been implemented by China for energy efficiency purposes.

Through the calculation of the CO₂ tax equivalent of Beijing's export-restricting measures applied to energy intensive products, IDDRI, in association with researchers from the State Information Center of China, has conducted research into the impact of different carbon tax scenarios. By using and adapting the calculation method developed by Climate Strategies in order to make the results comparable, Xin Wang was able to draw up the first map of CO₂ taxation impacts in China (see Figure).

This work was presented in Europe and China during a conference, organised by IDDRI and Climate Policy Initiative

(Beijing) at Tsinghua University, Beijing, on 23 November 2010, entitled "An analysis on the short-term sectoral competitiveness impact of carbon tax in China". As an academic and political dialogue between Europe and China, the conference was complemented by the subsequent dissemination of IDDRI's evaluation work on Chinese and European climate and/or energy policies, which appeared in academic journals and publications for the general public.

Impact of a carbon tax of 100 yuan/tonne of CO₂ on China's value-added



Source: Wang, X., Li, J. F., Zhang, Y. X. (2010), *An analysis on the short-term sectoral competitiveness impact of carbon tax in China*, IDDRI, "Idées pour le débat" n°03/2010.

Science and international negotiations: Between filiations and feedback

Significantly marked by repercussions from the climate controversy, 2010 remained a year that saw the multiplication, through global environmental issues, of both the need for and attempts to organise expertise mechanisms at the interface between science and international negotiations. Despite incurred criticism, the IPCC remains a reference, at least as an incontrovertible point of comparison.

In 2010, two mechanisms of this type were introduced. First, the proposal for the creation of an intergovernmental platform between science and policies on biodiversity and ecosystems (IPBES) was adopted at the Conference of Parties to the Convention on Biological Diversity (CBD) in Nagoya. This represented the culmination of a long negotiating process to which IDDRI had contributed to by attempting to reconcile different stakeholder positions and also by enabling the understanding of the strategic and scientific issues inherent to the, apparently very pragmatic, organisational choices of the mechanism, such as the permanent or *ad hoc* nature of the expert groups.

The year 2010 also saw the tangible translation of global initiatives on food security, motivated by the crisis from 2006 to 2008. Among these initiatives, the global partnership on agriculture and food security, that was proposed by France, led to the reform of the Committee on Food Security at the FAO. Expertise is one of the central pillars of this partnership and, thanks to the support of several FAO Member States, was one of its first aims to come to fruition as the high level panel of experts (often known as the HLPE) on food security and nutrition.

During this probationary phase, the HLPE is under careful scrutiny: it must demonstrate legitimacy in its method of member selection and credibility in terms of the academic rigor of its scientific *modus operandi*; in addition the HLPE must exhibit a high level of efficiency, i.e. to produce useful and directly relevant analysis at a low cost.

Through the accumulation of experience and knowledge on the functioning of several of these intergovernmental mechanisms at the crossroads between science and decision-making, IDDRI has contributed to the organisation of feedback from the IPCC, the IPBES and other similar projects, such as the Millennium Ecosystem Assessment, to identify cross-cutting issues that the HLPE cannot avoid, and also the specificities of the themes to be addressed.

This feedback took the form of an informal seminar organised within the FAO on September 27, 2010, the objective of which was to raise the Member States Permanent Representatives' awareness on the usefulness of this interface mechanism between science and policies, but also on the challenges it must face. The seminar has therefore helped install the HLPE in an FAO environment that is in constant reform, and to introduce a reflective way to consider the functioning of such mechanisms. It has also served to highlight a number of critical issues, in particular: with regards to food safety, that controversy is more common than consensus among economists; and also that the elucidation of such controversies constitutes an entirely different exercise from the political communication of uncertainties arising from natural science research, a task that is already highly complex. How can controversies be suitably appraised and conveyed to decision makers to enable them to anchor their political choices in the best science currently available? ■

Agriculture

Agriculture, food and global change

Since the food crisis in 2007-2008, food security has been at the core of international debates, where it emerged in 2010 as a global public good, over and above the mention of hunger reduction among the Millennium Development Goals. It seems to be an established fact that global food security depends on coordinated action on this issue by interdependent States. However, this growing public awareness is not without ambiguity. For a certain number of actors from developed countries, it is a compelling argument in favour of relaunching support for agricultural production, or even for relaxing the constraints of environmental policies, as it is now necessary to produce a great deal, everywhere, in order to meet increasing global demand for food, in addition to non-food demand. Other actors insist on the need to re-establish agricultural policies particularly in developing countries, where they disappeared during the structural adjustments of the 1980s. Finally, for others, any reading of the crisis should not focus solely on the increase in the production of agricultural biomass at the global level, since the food crisis reveals many other problems: it is our food systems as a whole that need to be reviewed, from producers to consumers via processing and distribution.

What, therefore, is required in terms of international coordination on food security issues? Do we need to find new instruments for global crisis management while keeping the same global food system model? Or should we thoroughly rethink this model itself? Several competing initiatives were set up in 2010: at the FAO in Rome with the reform of the Committee on World Food Security, as part of the G20, of the G8, within the US government, or within the framework of the New Partnership for Africa's Development (NEPAD) with the support of private foundations. Between fragmentation and competition, the landscape of the global governance of food security has been particularly dynamic.

This agenda corresponds quite strikingly to IDDRI's project concerning sustainable development at the international level for two reasons. First, food security plays a significant role in guiding all environmental issues with a global dimension: it is becoming unthinkable to talk of climate mitigation or biodiversity preservation objectives without mentioning food security goals. Second, agricultural and food issues provide a significant example of a sector for which sustainability is a major challenge, not only in terms of its different environmental impacts and its particularly high dependence on resources that are becoming increasingly rare – especially fossil fuels, which were at the root of the Green Revolution –, but also in terms of social aspects, such as rural employment, migration towards cities and access to food for the urban poor.

It could even be said that the year 2010 marked the emergence of food and agricultural issues in international environmental negotiations, whether for the Climate Convention's programme for scientific and technological advice on the reduction of greenhouse gas emissions from livestock or arable crops, or for the new possibilities provided by the Biodiversity Convention's 2020 targets for launching specific negotiations on subsidies harmful to biodiversity.

IDDRI therefore had to establish a capacity for intervention and analysis on these subjects, at the interface between agricultural and food issues and global environmental issues, especially as these questions are central for many of IDDRI's partners. Beyond the general debate on the return to legitimacy of policies and official development assistance for agriculture, and a call for market regulation which may hide very different visions depending on the country in question, is a

It is becoming unthinkable to talk of climate mitigation or biodiversity preservation objectives without mentioning food security goals.

structuring question for IDDRI: should we not envisage a true change in development models for the global food system?

IDDRI's work in 2010 explored four areas of analysis: the emergence of agriculture in climate negotiations; prospects for the governance of international agricultural research; price volatility and market regulation; and the reform of the Common Agricultural Policy (CAP) as an experiment for drafting new agricultural policies.

Agriculture and climate change: new policies, new funding?

Besides financing climate change adaptation, which already touched on agricultural issues, agriculture is only slowly emerging in climate negotiations as an emitting sector. Since greenhouse gas emissions from agriculture still seem complex and poorly understood (methane from livestock or rice paddies, nitrous oxide from fertilisers for arable crops, emissions from land use change, etc.), in 2010 the reduction of emissions from agriculture was tackled head on by a global alliance of national research institutes dealing with these issues, under the aegis of New Zealand, the only developed country where over half of all emissions are from agriculture. These issues should also soon be the subject of specific research within the Convention's Subsidiary Body for Scientific and Technological Advice.

Despite slow progress towards this integration, several changes can be noted. The major multilateral agencies (FAO, World Bank, international centres for agricultural research for development, etc.) previously insisted particularly on the need to find synergies between adaptation and mitigation measures in agriculture, in order to maintain more or less the same agricultural development model for food security. However, in The Hague in November 2010, they jointly put forward the concept of climate-smart agriculture, which seems to insist far more on the need to radically change the agricultural model in order to meet targets for mitigation, adaptation and food security together.

Cancún was another important moment.

Agricultural issues were particularly discussed in the context of the REDD+ mechanism to combat deforestation, especially as regards national-level strategies, over and above localised projects. Within this framework, it could be possible to remunerate agricultural policies aimed at preventing the expansion of cultivated areas, particularly through support for intensification, which would provide a means of meeting growing demand for food using only areas currently cultivated. IDDRI widely distributed a paper ("Agriculture and deforestation: What role should REDD+ and public support policies play?" *Idées pour le débat 10/2010*) aimed at highlighting the importance of structuring the debate around these sectoral national policies rather than relying simply on local forest projects, while also attracting attention to the fragility of this land sparing hypothesis. This hypothesis has yet to be confirmed in practice and is not particularly robust in economic terms, but is nevertheless a much-used argument in the current debate. Beyond discussions on REDD+, this hypothesis could put agricultural and environmental options between a rock (intensifying by reducing environmental objectives to avoid extending areas to the detriment of biodiversity) and a hard place (seeing cultivated areas grow if intensification does not occur). Showing that other accompanying policies are required makes it possible to launch the debate on the need to rethink the agricultural model in a more global way.

Finally, 2010 also saw hopes grow in the agricultural sector that carbon finance could be a new source of income for farmers, but a certain number of interventions (including IDDRI's, see Box p. 35) insisted on the transitory and limited nature of this potential funding, linked more to changes in practices than to the capacity of agriculture to act as a carbon sink.

Price volatility and market regulation: little consensus on the problem or the solutions

With the French Presidency of the G20, but also the new agricultural commodity price spikes, the end of 2010 highlighted the need for international regulation to prevent price volatility, which is harmful to both producers and consumers. Despite apparent agreement in France on the need for market regulation, especially for financial markets linked to ag-

*A key question for IDDRI:
Should we not envisage a true
change in development models for
the global food system?*

gricultural markets, the possible options were still widely discussed throughout the year, without any consensus between experts on either the causes of volatility or the means to control it, and even less so between the major countries concerned.


The High Level Panel of Experts (HLPE) on food security and nutrition, under the FAO Committee on World Food Security, was created in autumn 2010 with the aim of providing international discussions on this subject with solid expertise, along the lines of the IPCC model (see Highlight p. 32), and will begin its work on this highly controversial subject.

In addition to difficulties identifying the instruments for crisis management, it also seems important to distinguish between structural factors and economic factors: in particular, it is striking that we might consider that 2007-2008 experienced a crisis due to the exceptional combination of droughts in Australia, low stocks and competition with biofuels, but we could also think that it was precisely the return to lower market pressure in 2009 that was an exception, with the conjunction of relatively good climatic conditions and lower demand, whereas market pressure could be a long-term trend.

Reform of the CAP: a debate that reveals new challenges for agricultural policies

The debate on the reform of the CAP was considerably marked in 2010 by the concept of public goods: this key concept was expected to facilitate a political agreement by proposing the drastic reduction of support for farmers to remunerate only the production of public goods, which could include not only positive environmental externalities, but also for others production increases that would contribute to global food security. In the end, although the European debate seemed initially divided between the status quo and a liberal-green position, some proposals that appeared to be exclusively French found support in Europe: giving more or less importance to State intervention, they particularly consist in proposing that the next CAP should be seen as a restructuring, justifying support for the sector by the temporary need for investment to ensure a model change towards a more sustainable form of agriculture. The prospect of this new CAP actually accompa-

nying a change in development models therefore does exist, as does the possibility that this argument may in fact aim only at reproducing the previous policy word for word.

IDRRI has analysed this debate process at the European and French levels, and has put itself in a position to observe the integration of new issues into this agricultural policy: climate mitigation, coherence with global food security and sustainable development objectives, and also policies on food and competition within the industry. 

“CARBON” FINANCE FOR AGRICULTURE?

In the agricultural sector, greenhouse gas (GHG) emissions reductions were still seen in 2010 as a potential new source of income, a supply of payments for environmental services, for which the sector simply needed to get organised. During the 3rd World Congress on Rural and Agricultural Finance in Marrakech in October 2010, which brought together all the developed and developing countries agricultural credit associations, IDDRI called for a more realistic and innovative approach: not only is the likelihood of a global carbon market actually emerging slim, but reductions in greenhouse gas emissions from agriculture are not permanent, and agricultural production is generally a net greenhouse gas emitter (carbon, nitrous oxide, methane etc.), except where agricultural practices have changed. Carbon finance for agriculture must therefore be seen as an incentive for changing models rather than as a source of additional income.

Debate on priorities for international agricultural research

In March 2010, the first Global Conference on Agricultural Research for Development (GCARD) was held in Montpellier following a long process of reforming the Consultative Group on International Agricultural Research (CGIAR): one of the central challenges of this reform was to return the needs of farmers from developing countries to the heart of funding priorities for CGIAR research centres.

The research priority setting process and its governance were therefore the centre of attention, and the ability to present, argue and discuss future changes in terms of agriculture and food are a fundamental resource for this process, both to identify the long-term risks and challenges, and to ensure emerging scenarios are credible.

However, this ability to predict tendencies and changes requires expertise and modelling equipment that only a small number of research teams in the world have set up. This is why for 2050, almost all the experts and media in the world have taken up the figure of a necessary and feasible increase in global agricultural production of 70% compared to 2000 levels, a figure produced by FAO.

In Montpellier for the GCARD, IDDRI actively participated in a pluralistic group of foresight specialists convened by the GIP IFRAI (French Initiative for International Agricultural Research, INRA-CIRAD). This group worked for acknowledgement of the fact that a wide range of scenarios should be envisaged, but also that several world visions were in fact under discussion, and that their diversity was useful to ensure that the research priority setting process was sufficiently visionary.

Particularly using the Agrimonde report, which presents and compares two different development pathways for agriculture and food (conventional intensification or ecological intensification), this group succeeded in agreeing on the complementarity between the different qualitative and quantitative studies contributing to discussions on research and innovation policies and financing.

For example, it identified a set of points of convergence between the different forecasts, especially that continuing with the current model is not a sustainable scenario. It also pinpointed the research areas that do not currently receive enough attention, such as that of the future of the abundant agricultural labour force during the coming transitions. But it also highlighted the differing opinions that should be reflected in the research agenda: for example, the need for a radical change of agricultural model remains much debated, and research priorities must therefore allow for a range of different options and a diversification of innovation types and methods.

The summary of the group's work was particularly appreciated by participants in the conference, and especially by the Forum for Agricultural Research in Africa (FARA), which expressed the hope that a pluralist group of foresight specialists of this kind would make it possible to prepare the next GCARD in 2012 in an even more appropriate manner. Now we need to confirm our capacity to participate in this next GCARD. ■

Developing the biofuels sector: Opportunities and risks

European and French renewable energy support policies have resulted in the development of first generation biofuel sectors aimed at achieving a certain level of inclusion in transport fuel. In the French debate, environmental impact assessments for biofuels, especially in the form of life cycle analyses, were until 2010 subject to considerable precaution in order to guarantee their legitimacy for both producers and environmental NGOs: the ADEME study finally published in early 2010 reached a positive conclusion about the production of first generation biofuels in terms of greenhouse gas (GHG) emissions and substitution for fossil fuels, but only because it disregarded changes in land use. In terms of its carbon impact alone, the soundness of a support policy for first generation biofuels may therefore be questionable.

But what about the other environmental dimensions, such as the quality of the aquatic environment? When diffuse pollution and the over-exploitation of water resources continue to pose serious problems in several major agricultural production areas in France, how will the development of the biofuels sector bring about changes in production systems in these regions? Several water agencies expressed the need to anticipate the impact of such factors of change on the possibility of achieving a good ecological status for rivers and groundwater by 2015, as required by the EU Water Framework Directive. Within the framework of the *Club Ingénierie et Prospective* (CLIP – Prospective Engineering Club), IDDRI tackled the issue to understand how this kind of force for change within a sector could cause the sector's development path to move towards either a better integration of environmental issues, or towards further environmental degradation. A prospective study was conducted on the Adour Garonne basin and the Seine Normandy basin by the TREFLE laboratory in Bordeaux and the *Institut Français du Pétrole* (French oil institute) to anticipate the impact on the aquatic environment of the new biofuel crops aimed at meeting the target set

by French energy policy. For four different scenarios, the environmental impact was assessed using plot-level agronomic models, a quantification of areas available for the development of these biofuels, and an array of indicators on water resources used and water quality.

The two scenarios mobilising first generation biofuels show that even when trying to improve agricultural practices, the objective of developing biofuels results in a notable degradation of the aquatic environment. However, the two scenarios mobilising second generation biofuels show a possibility that this change in the agricultural sector could in fact lead to an improvement in the state of the aquatic environment, provided no attempt is made to maximise production and non-intensive, environmentally-friendly agricultural practices are promoted.

Beyond the generally negative impact of first generation biofuels on the aquatic environment, the study also proposed considering the possible development of second generation sectors as an opportunity to rethink agricultural models according to a less intensive, yet economically profitable configuration. But this still requires analysis of real scenarios for deploying second generation sectors at country level, for which the heavy industrial equipment required would seem to imply spatial concentration, and therefore the inevitable intensification of agricultural practices. ■

IDDRI-Sciences Po Partnership Towards a convergence of scientific projects

The strategic partnership between IDDRI and Sciences Po was reinforced in 2010 through teaching, leading public debates and identifying emerging issues, but also through an increasingly clear convergence of IDDRI's projects with the scientific orientations of Sciences Po. This reinforcement was partly aimed at promoting the role of the Sustainable Development Center at Sciences Po, which organised several conferences to address questions from its partners (ANSES, SNCF, Proléa, etc.) but also to adapt IDDRI's work at the national level.

Environmental issues, especially global, challenge not only the formulation and representation of public issues and the development of public policies, but also the organisation of science to address and translate these issues. Within the framework of new links between social and natural sciences, which underlies the pioneering character of Sciences Po's scientific projects, the unprecedented scale of the required change in trajectory for societal projects opens a field of innovation and research that is of particular interest for all of Sciences Po's fields of scientific expertise (political science, economics, law, sociology, history...). Through its participation in international negotiations, IDDRI brings first-hand empirical material, innovation in the formulation of research questions and research skills in economics, negotiation theory, law, public policy analysis and international relations. This scientific foundation, in partnership with Sciences Po, is central to IDDRI's strategic objective to further consolidate its credibility and independence.


The partnership is embodied through a number of innovative research projects, for example, the mobilisation of MediaLab's analysis skills to examine climate controversies and the emergence, during climate negotiations, of the objective to limit average global temperature rise to 2°C by 2100, enshrined in the Copenhagen agreement, and also to analyse the development and implementation processes for sustainable development public policies at national or global scales (Sustainable RIO project, see Governance Programme).

The partnership also provides the opportunity to involve Sciences Po students in novel projects: in particular, the preparation of a large-scale simulation of climate negotiations that aims to bring together cutting edge negotiation theory research and emerging issues,

notably in the sociology of science, on the renewal of the representation of public problems. This innovative educational exercise – which involves nearly 200 students and a diverse range of teaching modalities to which IDDRI contributes to at Sciences Po through the Collège universitaire, in Master's degrees (international affairs, public administration...) and also through executive education – also plays a major role in IDDRI's academic reinforcement and enables it to offer internships and recruitment opportunities to Sciences Po students.

The involvement of Sciences Po, in collaboration with IDDRI, in the Master's degree in Development Practice, a network coordinated by Columbia University and aimed at development professionals, represents a highlight in IDDRI's evolution in engaging in pedagogic activities, leading scientific networks and informing development policies.

The partnership between IDDRI and Sciences Po also generates an enhanced international sphere of influence, utilizing Sciences Po's network of international correspondents and IDDRI's think tank network, for instance: the presence of Claude Henry and Laurence Tubiana as professors at Columbia University; involvement in China to train managers on climate change issues; and IDDRI's welcoming of Norichika Kanie, a Japanese specialist in global governance of the environment, and Simelane Thokozani, in charge of a South African think tank specializing in renewable energy.

Finally, IDDRI and the Sustainable Development Center are involved in the organisation of numerous seminars and conferences. Of these, two conferences in particular were organised in the framework of international partnerships: one at Columbia University on the future of the IPCC and the other in Brussels and Paris on climate controversies (see Highlight "International Conference "Climate Controversies: science and politics", p. 20). These conferences are characteristic of the Organisation of high-level international debates, which is at the centre of IDDRI and Sciences Po's mission. 

The Team



Noura Bakkour
Special Assistant to the Director



Carine Barbier
Research Fellow
Cities & Energy



Pierre Barthélemy
Publications & Internet



Élie Bellevrat
Research Fellow Climate
Modelling & Energy Policies



Raphaël Billé
Programme Director
Biodiversity & Adaptation



Lucien Chabason
Senior Advisor



Tiffany Chevreuil
Administrative Assistant



Claudio Chiarolla
Research Fellow
Biodiversity Governance



Julie Cohen
Outreach Assistant



Michel Colombier
Scientific Director



Élise Coudane
Events & Outreach



Lisa Dacosta
Secretary-General



Élisabeth Druel
Research Fellow High Seas
Biodiversity Governance



Laetitia Dupraz
Assistant to the Director



Benjamin Garnaud
Research Fellow
Adaptation to Climate Change



François Gemenne
Research Fellow
Climate & Migrations



Viviane Gravey
Research Fellow
Agriculture & Climate Change



Emmanuel Guérin
Climate Programme Director



Benoit Lefèvre
Programme Director
Urban Fabric



Alexandre Magnan
Research Fellow Vulnerability
& Adaptation to Climate Change



Céline Marcy
Research Fellow
Climate & Renewable Energies



Benoît Martimort-Asso
Director
Development & Communication



Romain Pirard
Research Fellow
Forests



Vincent Renard
Senior Researcher
Urban Fabric



Julien Rochette
Research Fellow
Oceans & Coastal Zones



Mathieu Saujot
PhD Student Transition Costs
Towards Low-Energy Cities



Carole-Anne Sénit
Project Officer
Climate Governance



Thomas Spencer
Research Fellow
Climate & Energy Policies



Lucilia Tanchereau
Administrative Manager



Sébastien Treyer
Director of Programmes



Laurence Tubiana
Director



Elisa Vecchione
Research Fellow
Governance



Tancrede Voituriez
Programme Director
Governance



Xin Wang
EQUIPE Lille 1, PhD student
International Trade & Climate



Matthieu Wemaëre
Permanent IDDRI Representative
to European Institutions in Brussels

The secondment of Sophie **Galharret** (research fellow, Climate and Energy) ended in 2010. Maramé **Ndour** (CRPS, PhD student, Globalisation & Health), Norichika **Kanie** (guest researcher, Marie Curie Fellowship), Hubert **Kieken** (project manager, Climate

and Energy), Nicole **De Paula Domingos** (project manager, R2DS seminar), Jun **Li** (research fellow, Urban Policy, China) and Stéphane **Guéneau** (in charge of the Governance and Emerging Countries project) have also completed their mission in 2010.

Interns

Every year IDDRI welcomes several students as interns, working on its research areas.

Nodira Akhmedkhodjaeva

July 21, 2010 – December 31, 2010

University of Auvergne Clermont-Ferrand

Analysis of PES (Payments for Ecosystemic Services) activities in Cambodia

Marie Bourrel

April 15, 2010 – October 14, 2010

University of Nantes

Participation in IDDRI's activities related to the Calamar (Cooperation Across the Atlantic for Marine Governance Integration) project

Agathe Cavicchioli

July 07, 2010 – September 10, 2010

Sciences Po Lille

Assistance in the preparation of the conference on Climate Controversies; and research assistance on topics related to environmental migration

Béatrice Cointe

February 22, 2010 – June 30, 2010

Sciences Po

Participation in a pilot research project aiming at analysing international negotiations on climate change

Tania Daccarett

May 17, 2010 – July 31, 2010

Sciences Po

Research work on climate change adaptation policies

Benjamin Dequiedt

June 14, 2010 – August 13, 2010

Sciences Po

Research work on agricultural issues aiming at preparing the 2013 reform of the CAP

Martine Duquette

May 31, 2010 – August 27, 2010

Université du Québec à Montréal

Identification of climate change-related threats on cities

Clément Freger

September 25, 2010 – January 04, 2011

Université Pierre et Marie Curie

Research work on the financing of biodiversity conservation

Pierre de Jouvancourt

June 28, 2010 – August 13, 2010

Sciences Po

Quantitative analysis of the United Nations negotiation process on climate change

Gautier Kohler

September 22, 2010 – January 21, 2011

Sciences Po

Inventory of specific cities-related issues. Support for the Urban Fabric programme team

Paul Alain Ravon

June 28, 2010 – August 13, 2010

Sciences Po

Participation in a pilot research project aiming at analysing international negotiations on climate change

Joseph Schiavo

October 04, 2010 – December 22, 2010

IFE

Research work based upon the analysis of Chinese state subsidy system to renewable energies; compatibility with WTO rules; the United States position

Manon Wallenberger

May 03, 2010 – August 31, 2010

Sciences Po

Use of economic evaluations of biodiversity in the decision process

Yun Wang

September 13, 2010 – January 24, 2011

Sciences Po

Research work on an evaluation of Low Carbon Cities policies in China

Associate Researchers

Yann Laurans, Ecowhat Founder

Joël Ruet, CNRS researcher at the French Study Center on

Contemporary China in Hong Kong

The Sciences Po Sustainable Development Center (SDC) Team

Thomas Boulogne, deputy director

Claude Henry, scientific advisor

Julie Cohen, outreach assistant

Classes taught by IDDRI and SDC Teams

Master of International

Affairs (MIA), specialisation

in Environment, Sustainable

Development and Risks

Professors

Raphaël Billé ; Lucien Chabason ;

Michel Colombier ; François

Gemenne ; Emmanuel Guérin ;

Claude Henry ; Benoit Lefèvre ;

Benoit Martimort-Asso ; Vincent

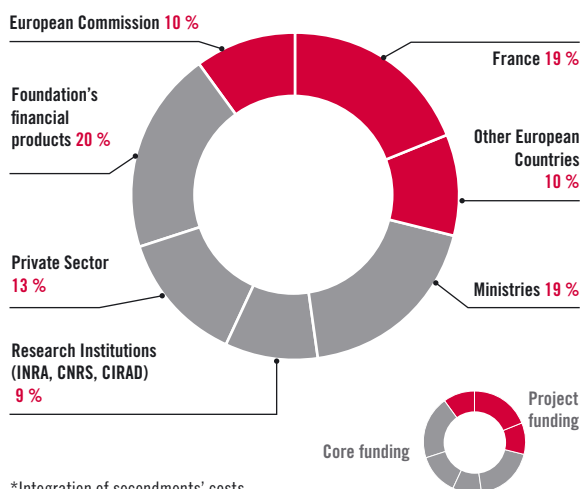
Renard ; Sébastien Treyer ; Laurence

Tubiana ; Tancrede Voituriez.

Budget

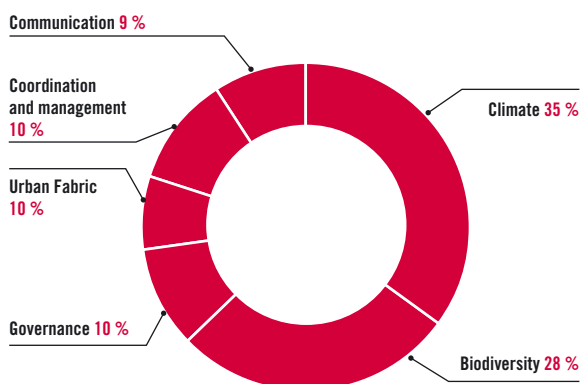
2010 was IDDRI's first year of operation with the foundation and association combined. The Foundation's budget was set at 2.9 million euros in 2010. Resources are provided by the founding members, research centres (in the form of staff secondments), ministries (Foreign Affairs, Ecology and Research and Education) various national and international partners as well as European projects.

FUNDING SOURCES*



*Integration of secondments' costs

DISTRIBUTION BY ACTIVITIES



IDDRI



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Institut du développement
durable et des relations internationales
27, rue Saint-Guillaume 75337 Paris cedex 07 France
iddri@iddri.org

www.iddri.org