

# Global Trends 2013

Peace - Development - Environment



Development and Peace Foundation (SEF)  
Institute for Development and Peace (INEF)



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Professor *Tobias Debiel*, Dr *Jochen Hippler*, Dr *Michèle Roth* and Dr *Cornelia Ulbert* developed the *Global Trends* concept and are the project's scientific directors.

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## Preface by Federal Foreign Minister Guido Westerwelle

We live in a rapidly changing world. Globalisation is a reality. Global challenges such as resource consumption, poverty and underdevelopment, food security, environmental degradation and climate change, terrorism and the proliferation of weapons of mass destruction, intra- and inter-state conflicts and health risks are clearly becoming increasingly interconnected. The international order, too, is changing dramatically. A tectonic shift is under way. Europe's share of the world population is shrinking, China has become the world's second largest economy, Brazil's economy is outperforming the British economy. Indian companies are now global investors. With greater foreign exchange reserves than the Western nations, the newly industrialised countries are the new powerhouses of the global economy.

These trends present major challenges, but they also offer fresh opportunities. Germany sees the newly industrialised countries as key partners which are now assuming an everincreasing share of responsibility at the regional and global level. They rightly demand a greater say in international policy-making, and are proving willing and able to contribute to global problem-solving. To ensure that the potential of these new players can develop to the full, a strengthening of global governance is required. We must recognize that nowadays, there is less and less scope for us to rely on one-off measures and unilateral actions as a means of solving the world's problems.

The United Nations – the only institution with a truly global reach – is indispensable as a forum for global problem-solving. As the cornerstone of a cooperative multilateral system, the UN is the only international body with universal membership and political legitimacy. But this is no barrier to individual initiative or cooperation by particularly resolute actors. Germany remains a driving force in this context, supporting the development of networks designed to help solve global problems. The establishment of the G20 is just one example.

Globalisation is a phenomenon that affects us all. To develop appropriate policy responses here, we need a broad social debate at local, national and international level. For more than 20 years, Global Trends has monitored globalisation processes, providing its readers with reliable facts and statistics as well as insightful analyses and forecasts, thus enhancing our understanding of the complexities of global governance and policy-making. The authors of this new edition have made a major contribution to the globalisation debate in Germany. Thanks to their work, well-informed readers can engage with current trends, developments and challenges, to all of which Germany's foreign and development policy must frame a response.

I wish you an interesting and informative read.



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## Editors' acknowledgments

*Global Trends* is the core publication produced jointly by the Development and Peace Foundation (SEF), Bonn, and the Institute for Development and Peace (INEF) at the University of Duisburg-Essen. As with previous editions, our aim is to provide concise information about major trends in peace, the world order and sustainable development, to guide our readers through their complexities, and to offer recommendations for policy action. The abridged English version contains a summary introduction and four key contributions from the individual subject areas.

The editors wish to express their warm thanks to the contributors for rising to the challenge of compiling concise and accessible articles on complex issues. The *Global Trends* format also necessitates a high level of editorial input and support, and we therefore wish to express our gratitude to the staff at INEF whose dedication and commitment have once again made the publication of this edition of *Global Trends* possible. We would also like to mention, in particular, the very good cooperation with the translator, Hillary Crowe, and with the staff at artdesign.Bonn, who were responsible for designing and producing the graphics for this latest edition.

Tobias Debiel, Jochen Hippler, Michèle Roth, Cornelia Ulbert

# Global Governance Under Pressure: Trends and Outlook

*Tobias Debiel / Michèle Roth / Cornelia Ulbert*

Since the last edition of *Global Trends* was published three years ago, the demands being made of global governance institutions have increased to such an extent that the system of international relations appears to be permanently under pressure. A series of global shocks – the world financial crisis and the food crisis being two examples – have thrown the gaps in global governance and the repeated failures of the climate process into sharp relief. These crises are in no small part the – albeit unintended – consequence of years of deregulation policy, coupled with government and market failures and environmental change, which is itself largely the outcome of a growth-fixated development model.

At global level, a climate of distrust of the United Nations (UN), fuelled over many decades, and the erosion of its problem-solving capacities through the systematic use of blocking tactics have done much to undermine institutionalised multilateralism. Issues of vital relevance to the future, such as the reduction of greenhouse gas emissions and the conversion of the global energy system to renewable energies, thus remain unresolved. The time when a hegemonic power provided public goods "benevolently" – as in the era of the Bretton Woods system – is long gone. Instead, attempts are being made to alleviate the pressure in the system through a move towards sectoral – in other words, thematically specialised – forums and a multitude of

alternative forms of global governance outside the established multilateral institutions.

The resulting fragmentation of global policy-making, combined with a proliferation of international and transnational forums, is creating new complexities in international relations and is tending to reinforce the inequalities between actors, as only the more powerful among them – including a growing group of emerging countries – are attuned to these complexities. At the same time, the increasing multipolarity in the system offers opportunities to forge new alliances which no longer (have to) abide by the rules of conventional power politics.

In this scenario, the state's role appears to be undergoing a process of long-term change, reflected also in an altered understanding of what sovereignty means, both internally and externally. Social protest movements are increasingly objecting to the lack of provision of national and global public goods by governments and their failure to control dominant market forces. The burgeoning middle classes in many developing countries are a major force to be reckoned with here. Technological advances such as the Internet offer new opportunities for political participation, transnational networking and public access. At the same time, the threats posed by the new technologies are confronting states' governance capacities with an entirely new set of challenges (cyber-security).

The major global governance gaps mentioned at the start clearly show that the Western economic model and concept of progress cannot provide a frame of reference for the wider world – and that it is the major industrialised nations, first and foremost, which need to change course. The finite nature of our natural resources, and the limited and in some cases almost exhausted carrying capacity of the Earth's ecosystems, including the atmosphere, mean that a "business as usual" approach is not an option. As a result, a broad debate has begun at the national and the international level about how prosperity and welfare should be defined, also in light of the interests of future generations. Among the multitude of proposals and models, there appears to be one certainty: that gross national income (GNI) has outlived its usefulness as the sole indicator of wealth and progress. But what kind of sustainable development goals do we need? That is still a contentious issue. Far-sighted policy-making must also consider possible future crisis scenarios and take precautionary measures to prevent these scenarios from becoming reality, or to mitigate their foreseeable impacts.

The authors of this new edition of *Global Trends* have undertaken in-depth analyses of these developments, briefly outlined here, and present their findings, underpinned by statistical data and factual information. In this introduction, we turn the spotlight on some of the major multisectoral trends. We also consider the wider issue of the future goals of global governance. And finally, we examine the prospects for global problem-solving against the backdrop of political and cultural differentiation.

## Global trends in the structures of governance

### The fragmentation of global governance and its consequences

Multipolarity, a polycentric, sectoral world order and forms of informal governance characterise the present structure of global governance. **Increasingly, global problems are being addressed on a sectoral basis by shifting coalitions whose members include not only states and international organisations but also networks, businesses, private foundations and non-state actors. This upsurge in informal governance has a number of causes. Firstly, institutionalised multilateralism is deadlocked in a number of policy fields.** The climate process and the delayed reaction to the global financial crisis are merely the most striking examples. This situation is caused by a multitude of factors. In some cases, it is simply the large number of participants which makes consensus-building so difficult. At a time when not only Brazil, Russia, India, China and South Africa (BRICS) but other emerging economies too – such as the "Next 11" (N-11) countries – are making their voices heard and are no longer falling into line with hegemonic demands at the global and regional levels, this is resulting in overly complex bargaining processes in which potential veto players tend to gain the upper hand and can derail even the most advanced negotiating outcomes.

A second factor also comes into play: **The existing multilateral formats are not yet sufficiently well-adapted for the emerging countries in particular to have adequate opportunities for participation. In order, nonetheless, to alleviate the**

ever-increasing pressure caused by burgeoning problems, state and non-state actors alike are experimenting with diverse forms of global policy-making which tend to be notable for their exclusivity or new configurations of actors and which are resulting in ever greater fragmentation of global governance. Club models in particular have gained in significance [see *Informalisation of World Politics?*]. These exclusive coalitions of states, some of which are established for a limited period with a single goal while others are "built to last", are notable for their informality and flexibility. They can build on existing structures such as the G7/8 and now also the G20, which have a "firm core" of participants, but they can also offer flexible participation according to the given situation. Their informality may or may not be permanent. The *Global Fund to Fight AIDS, Tuberculosis and Malaria* and the *Extractive Industries Transparency Initiative* (EITI) evolved from the G8 setting, for example.

Will these developments ultimately lead to more effective problem-solving? That is a contentious issue. **It is undisputed, however, that the UN system has forfeited its coordination and steering role in many areas, and that there are many policy fields – notably global health – where it is no longer central to the mobilisation and distribution of resources.** A higher level of legitimacy tends to be ascribed to individual units within the UN system due to their participatory mechanisms and procedural rules. Of course, these aspects could be balanced out by notable successes (output) achieved by smaller models with a club-type format. So far, however, these models have only been able to acquire a veneer of output legitimacy on a selective basis, making the situation even more complex. **In terms of goal attain-**

**ment, clubs generally have a good track record. It is debatable, however, whether the effectiveness of their cooperation genuinely benefits global problem-solving, or whether it is more about consensus-based safeguarding of particularistic interests.**

**The fragmentation of global governance can offer fresh opportunities:** The impetus for a more effective International Monetary Fund (IMF) during the financial crisis since 2007/2008 has largely come from the G20. Conversely, the Millennium Declaration adopted by the UN General Assembly spurred private foundations, non-governmental organisations, states and multi-lateral organisations to engage in new types of public-private partnership in order to address the urgent challenges of poverty reduction. **At the same time, however, a "global governance à la carte" is fraught with risks.** First of all, the frequent shifts of format and the parallel debates about the same issues in different settings generate substantial transaction and communication costs. The blurring of mandates and functions of institutions and clubs in some cases makes specialisation based on a division of labour and a coordinated multisectoral approach more difficult to achieve. Secondly, this type of configuration encourages "forum shopping", with actors invariably seeking out those institutions which they believe will offer them the most favourable solution. It goes without saying that this can lead to suboptimal solutions for public goods, substantial time delays, or issues simply being "debated to death".

If global organisations and governance regimes – but also horizontal networks – fail on core issues relating to humankind's future security, the alternative is a risky situation with the prospect of a return to

classic "power-and-influence" politics. This is precisely the scenario which can be observed in the context of energy security. The trend towards maritime rearmament, too, shows that when it comes to core issues of survival, states are ultimately not prepared to rely on norms being agreed and implemented, and infringements sanctioned, at the multilateral level. The consequences of a lack of multilateral commitment could also be dramatic in a field which has long been a crucial issue for the survival of the planet: the use of fossil energies as a key driver of global warming.

Over the course of the coming decade, it is quite possible that in the key area of energy supply and use, the competition for access to fossil fuels and other raw materials will intensify, perhaps with military backing, while efforts to reduce climate-damaging emissions grind to a standstill. Here, cooperation can only be successful if a reliable framework is in place. **Informal forums can initiate debate and prepare the ground for decision-making. Ultimately, however, core issues of global survival can surely only be addressed effectively through institutionalised structures and within the framework of inclusive multilateralism.**

### **The resurgence of the state – but a changed understanding of sovereignty**

The crises which have occurred over recent years have shown that those who proclaimed the demise of the state so vociferously in the 1980s and again, in a more muted manner, since the end of the 1990s were misled. **Complex crisis management in particular needs a functioning state as a core unit with the capacity to meet the stringent demands of globalised policy-making.**

International organisations, policy networks, clubs and sector-specific coalitions all have a role to play in coordination, norm-setting and, if appropriate, legal regulation. However, if policy- and decision-makers are unable to cooperate, make appropriate contributions to the debates and implement agreements at the national level, global governance runs on empty. And while non-state and private actors have played an increasingly significant role in the delivery of national and global goods and as international development donors in recent years, it should be borne in mind that the state – through its fiscal sovereignty – is still the key actor in mobilising the resources needed for the discharge of public functions.

**This resurgence of the state should not be confused with a return to traditional concepts of statehood. In fact, the concept of statehood has changed empirically and now has a new normative classification.** States today have far more permeable external borders – not only in relation to trade or transboundary environmental pollution, but also, and particularly, in relation to people and ideas. States are involved in many different arrangements which require some sharing of sovereignty. In many policy areas, it is no longer about states' own rule-making, but how they can contribute to global regulatory processes, with implementation then taking place at the national level. As a result, governance nowadays is far more reliant on partnerships. And while authority is still significant, the capacity to learn and the organisation of cooperative problem-solving are becoming more important. However, this is something of a balancing act for states. Contributing to collective forms of international governance which to some extent – especially in the context of European integration – have resulted in the transfer of ele-

ments of sovereignty can lead to a loss of legitimacy at the domestic level, due to a perceived disconnect between national political representation, on the one hand, and the loci of collective and binding decision-making, on the other.

Not least, states today have an even greater obligation than before towards their citizens, with the result that the "firewall" provided by the non-intervention principle has become porous. This is particularly apparent in relation to the "responsibility to protect" (R2P), which applies to grave human rights violations and no longer sees sovereignty solely as the state's right to defend itself but primarily as an obligation towards its own citizens. With technological advances such as the Internet, the ability to disseminate information very rapidly, the corresponding demands for transparency and the global calls for more democracy also show that states which currently base their legitimacy mainly on output must utilise this period in order to manage the negative growth and welfare cycles that are predicted to lie ahead. With phases of stagnation and crisis clearly in prospect and likely also to impact on the emerging economies, legitimacy can only be guaranteed if more participation and reliable rule-of-law processes are established.

### **New drivers of democracy - but no guarantee of success**

**The number of democratically constituted states has steadily increased over the last two decades.** Following the waves of democratisation in Latin America in the 1980s and in Central and Eastern Europe in the 1990s, opposition movements also emerged in the Caucasus, Asia and latterly in the Arab world, demanding democratic reforms in their

countries. Since then, elections have already taken place in some North African countries, such as Tunisia and Egypt, following regime change.

In the context of the Arab Spring in particular, a lively debate has emerged about the role of the new social media and the middle classes as catalysts and drivers of democracy.

**In many cases, there is a clear connection between economic discontent among the middle classes and the desire for political reforms.** If well-educated sections of the population lack adequate employment prospects which offer them livelihood security, they are more likely to be willing to engage for regime change and democracy, which appear to hold out the promise of more rights of political participation and better economic opportunities.

The significance of digital media in political mobilisation, on the other hand, is a highly contentious issue [see *Revolution 2.0?*]. **After initial euphoria about the "Facebook revolutions" in Tunisia and Egypt, critical voices can increasingly be heard, pointing out that the role of the new social media and the Internet in bringing about political change has been overstated and that much of the impetus for change comes from conventional mainstream media such as television and the newspapers.** In reality, there is an increasing overlap between new and traditional media in the dissemination of information. At the same time, however, repressive regimes are also seizing on the opportunities afforded to them by the Internet or new social media, or are attempting to control and suppress them.

**The long-term success of the various transformation processes is not guaranteed, however.** Even if democratic structures and corresponding procedures are established, it is by no means certain that

political elites will abide by democratic rules. Recent developments in Ukraine and, indeed, in Russia show that simply because a country holds elections, this does not mean that it has a functioning parliamentary or presidential system with compliance with the separation of powers, the rule of law, and guaranteed basic political and civil rights. Unless democratic rules are embedded as a core social value, there is a risk that the transformation will produce nothing more than a pale imitation of democratic institutions and procedures.

The external support provided by the international community in order to promote democracy has a mixed track record at best. The success or failure of democracy-building processes generally depends on a number of internal and external factors, which measures adopted in isolation by external actors can only influence to a very limited extent. A key determinant of long-term democratic stability is whether the positive effects which broad sections of the population and government elites hope to achieve from a democratic system of government actually become reality.

It is noteworthy, in this context, that the goals of the democracy movements in the Arab world are mainly economic and social in nature. In other words, democracy is associated with a desire for basic material security and the dismantling of inequalities. Both of these are core outputs of democratic systems – and they are areas where the established Western democracies have shown substantial deficits in recent years.

## A new set of goals for global governance

### Towards global development goals

Poverty, avoidable deaths from essentially treatable diseases, environmental change, climate change, disruptions in the global financial system – the list of challenges which the international community has to address is a long one. **There is a growing awareness that new ways of thinking about social progress from a global perspective will increasingly be required in future. For although the number of people living in poverty has been reduced in various regions of the world, albeit to varying extents, the inequalities within and between societies have widened in recent decades.** This is due firstly to changed employment and social structures in the industrialised countries, where the financial crisis and sovereign debt crisis of recent years have left deep scars in some cases. Secondly, as a result of economic growth in the emerging countries, which have now joined the ranks of middle-income countries, a burgeoning middle class is forming, while at the same time, large sections of the population – and China is an outstanding example of this phenomenon – are still living in poverty.

**Furthermore, although 40 years have passed since the first United Nations Conference on the Human Environment in Stockholm and the publication of the Club of Rome's Limits to Growth (Meadows et al. 1972), humankind has still not managed to decouple economic growth from rising CO<sub>2</sub> emissions** [see *Transforming the Global Energy System*]. Furthermore, with a growing world population and changing

dietary habits, emissions of other greenhouse gases such as methane are rising due to an increase in rice cultivation and livestock farming. This is associated with land-use change and a shift towards more intensive cultivation of energy crops and the expansion of livestock husbandry, with many, often negative, effects – not only for affected communities but also for the environment and food security [see *Food Security – A Global Challenge*]. **This clearly shows that the Western fossil-fuelled economic system and its associated lifestyles cannot serve as a global model and that a change of course is required, particularly also in our increasingly agro-industrial farming systems. Human-induced environmental changes since the start of industrialisation have resulted in certain biophysical thresholds in the Earth system having already been overstepped** (Rockström et al. 2009).

Twenty years after the United Nations Conference on Environment and Development (UNCED), the issues of sustainability and development – which in the meantime have become separate strands of the political debate – must be merged again. **Global sustainable development is the key benchmark for measuring policies which aim to safeguard the future.** It is debatable, at present, whether the outcomes of the United Nations Conference on Sustainable Development (Rio+20) can make an adequate contribution here. Nonetheless, the conference in Rio de Janeiro in June 2012 marks the start of a change of mindset, as the social debates conducted in advance of the conference have already shown (Martens 2012, p. 8f.).

The shift towards a *green economy* – a low-carbon, resource-efficient, socially equitable economic model – as promoted by the United Nations Environment Programme (UNEP)

and the Organisation for Economic Cooperation and Development (OECD) (UNEP 2011; OECD 2011), can only be one building block here. Although resource-efficient production has been promoted in many sectors over recent decades, more efficient resource use is often cancelled out by larger unit quantities in production and increased consumption as a result of population growth. With regard to CO<sub>2</sub> emissions in particular, only an "energy turnaround", away from fossil fuels towards renewable energies, can put us on track towards sustainable development [see *Transforming the Global Energy System*]. Germany's future energy policy course is therefore likely to be the subject of intensive scrutiny in the wake of its announced nuclear phase-out and its commitment to promoting renewables more vigorously worldwide.

However, even a *green economy* is based on the concept of economic growth as a means of creating new jobs and thus reducing poverty and narrowing social inequalities. This conflicts with the observation – already mentioned – that in countries with high economic growth rates in particular, the gap between rich and poor has widened further in recent years. Furthermore, there are increasingly vocal calls for social progress and prosperity to be measured against benchmarks other than gross national income (GNI). **There is still a goal conflict between economic growth, ecological sustainability and universal social welfare. A global debate has therefore started about new indicators for measuring prosperity which include subjective assessments and downplay the notion that "more" material prosperity always creates "more well-being"** (see Martens 2012, p. 33ff.). At present, however, there is no sign of any emerging consensus on what could replace

GNI. Nonetheless, the mere fact that a discussion process has been initiated at both national and international level should be viewed as a positive sign that serious consideration is being given to new indicators of progress and related development goals.

This debate is also about the common interests and responsibilities which all states share, which implies a shift away from the present dichotomy between developing countries on the one hand and industrialised nations on the other – the "developed North" and the "underdeveloped South". This conforms with the real-world situation in which "the South" is no longer a monolithic bloc – if, indeed, it ever was. The interests of the emerging economies are not congruent with those of the least developed countries (LDCs). Without the emerging economies, it will be impossible to implement effective solutions to numerous problems, especially the problem of greenhouse gas emissions. At the same time, climate change in particular – which from a historic perspective was caused primarily by the industrialised countries – demonstrates yet again the North's responsibility for the framework conditions under which the Global South is developing. These "new realities" are the starting point for the recommendations on sustainable development goals (SDGs) presented in the report *Resilient People, Resilient Planet*, published in January 2012 by the High-level Panel on Global Sustainability set up by UN Secretary-General Ban Ki-moon. The High-level Panel does not provide a list of specific goals, however, but proposes a set of principles as the basic framework for the development of these goals (High-level Panel on Global Sustainability 2012, p. 72f.). This also reflects the awareness that "development" must be considered against the backdrop of political and cultural differences.

Development challenges facing the industrialised countries and their socio-economic systems, whose development models cannot provide a frame of reference for the wider world, must be given just as much consideration as the socio-economic problems facing the emerging and developing countries.

### **Crisis prevention: importance recognised, but implementation still in its infancy**

A further key topic, reflected in the title of the High-level Panel's report, is human and environmental "resilience": in other words, the ability to cope with the many stresses to which human communities and the environment are exposed. 2011 was the year with the highest level of material damage caused by natural disasters, although the number of deaths was lower – despite the earthquake and subsequent tsunami in Japan – than the high casualty figures recorded for 2010 as a result of the extremely large number of disasters that year. Due to their extensive and technically sophisticated infrastructures, the industrialised countries tend to sustain higher levels of material damage than developing countries, whereas disasters in developing countries generally claim more lives. Any economic damage which they sustain, however, is generally much more difficult for these countries to cope with on account of their low economic output. This is due to a lack of coping and adaptive capacities, which makes populations in poorer countries more vulnerable than those in more affluent countries. The effects of the food crisis in 2007/2008 also showed that populations in the least developed countries (LDCs) in particular, which additionally suffer from poorly functioning markets, low agricultural productivity, unmitigated

impacts of environmental degradation, debt and poor governance, are particularly affected by crises [see *Food Security - A Global Challenge*].

The large number of crises over the past decade shows just how many areas of our modern "globalised" lives are characterised by ever greater linkages, growing interdependencies and increasing complexity. In the case of natural disasters or, indeed, in crises which are the consequence of human action such as the financial crisis, the functionality of key systems such as finance or transport, information and telecommunications systems or the health sector may be at risk. **Prevention and adaptation measures must be adopted against these types of risk, which are described as "systemic", in order to safeguard the wellbeing and, over the long term – at least as regards the possible impacts of climate change – the survival of humankind.** Natural disasters and crises cannot be avoided entirely, so it is important to identify particularly vulnerable societies or sections of society, such as marginalised groups, in order to improve their resilience and adaptive capacities on a targeted basis.

**There is a gradual recognition at the international level too that forward-looking policies must be guided by the precautionary principle and crisis prevention. However, the practical obstacles remain high.** The success of a disaster prevention policy is almost impossible to quantify. Furthermore, integrated strategies are required, which must not only unite various fields of action under one specific goal, as is the case with the concept of global sustainability. **Linkage between the different levels of action – global, national and local – is also needed, not only to improve stakeholders' opportu-**

**nities to participate in policy formulation but also to utilise capacities and resources at the various levels more effectively, based on a division of labour.** The risk that "diffusion of responsibility" will occur across these various levels of action is extremely high. The only possible response is to impose specific forms of accountability on all actors – state and non-state alike – at the various levels (Hesselmann 2011).

### **Outlook: Global problem-solving against the backdrop of political and cultural differentiation**

**Power relations in the global economy and politics have undergone a permanent shift since the end of the "short Twentieth Century" (Hobsbawm 1998), with the dominance of the Western countries now dwindling. The fact that these shifts have had dramatic effects on the international system, global regimes, and the performance capacities and legitimacy of global governance is now impossible to ignore. But which regulatory models and political cultures will characterise global society in the 21st century? That is still an open question.** The observation that new powers such as China, India and Brazil are increasingly making their mark on globalisation processes is now bordering on cliché. A less obvious trend, but perhaps with a comparable effect over the long term, is that other states of significant size are positioning themselves in the world economy and politics; these countries with mainly regional significance at present are often described as the N-11 countries: Egypt, Bangladesh, Indonesia, Iran, South Korea, Mexico,

Nigeria, Pakistan, Philippines, Turkey and Vietnam. Compiling an accurate list of these countries is less important than the fact that they can be regarded as potential "agenda-setting powers" which have no intention of subordinating themselves to a "Concert of Great Powers" agreed between a small number of countries. **World politics in future is likely to be about "managing diversity" in a complex balancing act between highly diverse economic and security policy interests, and with different normative concepts and views on global governance according to culture and region.**

Will this diversity have a positive or negative effect on global problem-solving? This is almost impossible to predict at present. One possible effect may be the fragmentation of world politics, described at the start. At the same time, it is remarkable that on issues of sovereignty and the protection of human rights, despite all the controversies on points of detail, a fundamental normative consensus has emerged on the "responsibility to protect" (R2P). In the field of development cooperation, too – always a defining element of North-South relations – the international community has been able to achieve joint targets based on the Millennium Development Goals and also to mobilise more resources and focus greater attention on this policy area. In these fields of action, the UN system – whether in the form of the Security Council or the General Assembly – remains a central frame of reference for authoritative action and resource mobilisation.

This much is certain: **In addressing what are essentially global problems, a new dimension of global cooperation must be achieved in order to avoid considerable frictions in the international order** (Debiel et al. 2009). It is clear that established sector-based international regimes (Breitmeier et al.

2009) are no longer enough. Models or, indeed, blueprints from the past are also unlikely to help us progress towards a system of governance that is both effective and legitimate. There is little sign, at present, of a return to hegemonic structures. It is more likely that the web of hierarchical and horizontal governance forms will continue to diversify. It could be helpful, in this context, to view club models à la G20, forums for private self-regulation, but also the "classic" negotiating arenas in institutionalised or selectively practised multilateralism not only within the narrow confines of direct cost-benefit calculations but also as transcultural socialisation and learning communities, where norms, world visions and regulatory concepts with different provenances can circulate, ideas are aired and shared, and regional policy and regulatory debates relating to specific regime formats can converge. Diplomacy in particular – which is increasingly "packaged" for the media – demonstrates the great importance of these "soft factors" for problem-solving and goal attainment.

The extent to which political traditions influence national foreign policy has often been underestimated. Formative state-building events often influence the predispositions of decision-making elites for decades and even centuries afterwards (Johnston 1995). The USA's strong international engagement, e.g. in the field of humanitarian intervention, is motivated not only by national interests but can also be seen as an expression of its sense of mission, which is deeply rooted in its history and has often been translated very successfully into practical action. China's stance is quite different: it has its own painful experience of external intervention and is also shaped by philosophical, ideological and regulatory

models which culminate, at least initially, in a desire to establish a strong position in the region. These political cultures have a bearing on fundamental normative questions of global governance – and are constantly being redefined. In the process, they must prove their worth to a world public heavily influenced by the Internet and selected electronic mainstream media. This has a feedback effect on national public and political processes, not only in democratically constituted states but also in authoritarian and semi-authoritarian regimes, which (must) now open up to the outside world in a way scarcely imaginable in the 20th century.

All this has an impact on the question of how global governance for global problem-solving can be organised today, against the background of political and cultural differentiation. **First of all, a rational review of the various forms of global governance is undoubtedly required, with a focus on their effectiveness and legitimacy. However, for a proper understanding of the diversity – regional, political and cultural – which exists in the international arena, it will become increasingly necessary to see international forums as learning communities and to take account of their feedback effects on rapidly changing strategic and political cultures.** As this happens, the world is likely to become less ordered and more chaotic than in the era of bipolarity, hegemony or "concerts of powers". The static concept of architectures can only be of limited assistance. Much will be decided in communicative and decentralised opinion-forming processes which obey their own internal logic. But this new diversity also creates new opportunities. The real challenge is to utilise these processes in such a way that they reduce, rather than exacerbate, the existing inequalities in the world. Only then will there

be a genuine prospect of sustainable and peaceful development worldwide.

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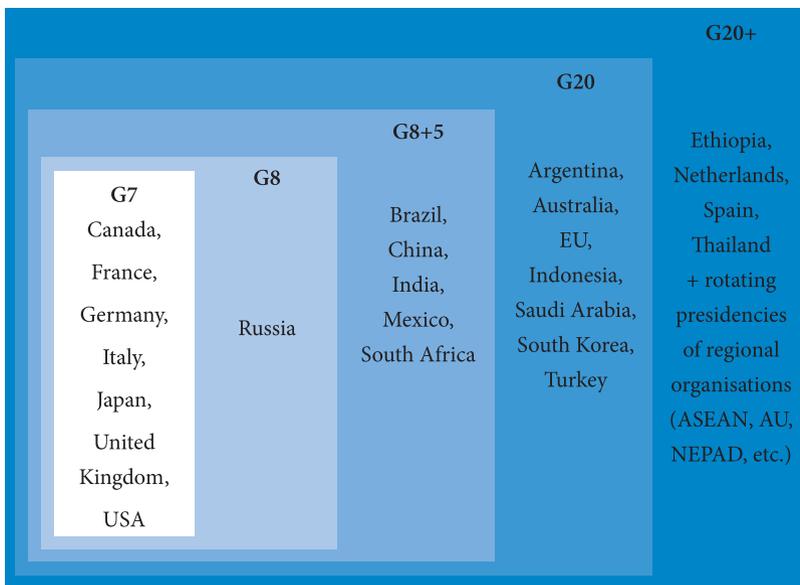
# Informalisation of World Politics?

## Global Governance by Clubs

*Bernhard Rinke / Ulrich Schneekener*

Informal multilateral governance formats, such as "coalitions of the willing" or "clubs" like the Group of Eight (G8) and Group of Twenty (G20), are gaining influence in world politics, at least according to the popular perception. In practice, these clubs compete for political attention, concepts and resources. Whether this trend will make tackling global problems any easier in the medium term remains to be seen. What we can say, for now, is that the pressure of problems in many fields – whether in security, financial, development, climate or energy policy – has increased, without commensurate political capacities having developed to manage these problems at a global level. On the contrary, in many policy fields, largely disconnected parallel processes exist in different formats. This results in duplications, proliferating summits and communiqués and an overabundance of government and private funds, initiatives and programmes – inside and outside the United Nations (UN) system. To that extent, global governance is characterised by a highly fragmented, heterogeneous structure which is shaped by different modes of managing and steering political processes, whose legitimacy and effectiveness must now be critically reviewed.

**Figure 1: Clubs formed by the industrial and newly industrialised countries**



Source: Authors' own graphics

## The informalisation of multilateral governance

International politics, and especially the business of diplomacy, have always been characterised by some degree of "informality", at least if "informal" is interpreted as meaning "non-public". Diplomacy – and not only classic "secret" diplomacy – is essentially a business which is conducted behind closed doors, with the public being excluded. In the context of the current global governance debates, however, informalisation is understood rather differently: here, it denotes the increasing heterogeneity of global political processes, with a shift "away from formal international organisations with codified norms and explicit rules" (Daase 2009, p. 290) towards weakly institutionalised selective groupings of states of all types – or "clubs", for short. These arrangements tend to be flexible, fairly loose and informal gatherings of governments. From this perspective, then, informalisation describes not a political style but a qualitative change in the institutional framework in which the business of world politics is conducted.

Formal international governance – as distinct from informal governance – takes place within a framework of highly institutionalised multilateralism. This is reflected in the founding, existence and activities – some of them issue-specific, others with a broader sweep – of international organisations as corporate actors with a clear institutional structure and defined competencies. Examples are the United Nations, the International Monetary Fund (IMF) and the World Trade Organization (WTO). Formal multilateralism is characterised by an inclusive membership structure, regulated procedures, and consensus-oriented

decision-making processes. These may produce issue-specific regimes and/or internationally binding legal arrangements, norms and standards – often with corresponding sanction mechanisms (e.g. sanctions under Chapter VII of the United Nations Charter, or dispute settlement within the WTO framework).

And yet this classic multilateralism is itself permeated by informal structures and procedures. Conversely, the informal clubs often include some elements of formality (such as a rotating presidency, regular meetings with a specific policy agenda, decisions published in the form of communiqués, periodic invitations to other actors to attend summits, etc.). Nonetheless, some observers are warning that the progressive informalisation of world politics could undermine the high level of institutionalisation achieved in international governance, notably in the UN framework. This could potentially affect decision-making processes, undermine the binding nature and implementation of decisions, and even lead to the development of competing normative standards which could erode the regulations and norms established in international law. A glance at the unilateral foreign and security policy pursued by the Bush Administration after 9/11 (2000-2008) appears to support this hypothesis. Rather than responding to the 9/11 attacks by strengthening multilateral cooperation and expanding the system of collective security, e.g. within the United Nations framework, the Bush Administration reverted instead to "national security" in the sense of classic sovereignty policy, with the formation of alliances and "coalitions of the willing" and, not least, more intensive deployment of military force, also as a preventive measure in extreme cases, in violation of international law. In short, US policy in the "global war on

terror" relied on informalisation, not institutionalisation.

## The crisis of institutionalised multilateralism

The background to the current proliferation of informal formats is a crisis of the established multilateral system. It should be noted, first of all, that world politics is characterised by two conflicting macro-processes. The first is the process of globalisation and transnationalisation, which has been widely discussed and which has led to considerable blurring of borders and greater integration and linkage between countries and regions. This process has not eliminated global and local inequalities; on the contrary, it has exposed them. The result is growing interdependence, mainly in the economic and technological fields, with asymmetrical distribution of opportunities and capacities, but also of costs, threats and risks. And whereas in purely quantitative terms, the world since 1945 has witnessed "the formation and increasing diversification of institutions beyond the nation-state taking place on a scale unprecedented in history and with an ongoing dynamic to this day" (Breitmeier 2009, p. 16) – evident, for example, in the growing number of international organisations – this process is characterised by contradictory developments, setbacks and fractures. "Governance beyond the nation-state" (Zürn 2005), it seems, is not a linear or progressive project that has strengthened the multilateral institutions through the ongoing transfer of decision-making powers and processes from the national to the international level. The interdependencies

mentioned above are not automatically translated into processes of political institutionalisation and integration.

On the contrary, since the start of the 21st century, the fragmentation of multilateralism can be discerned as the second macro-process. Here, two mutually reinforcing trends predominate: firstly, the "renaissance" of "classic" sovereignty policy which is largely unilateral in orientation, and secondly, the internal crisis of institutionalised multilateralism (see Schneekener 2010, 2011).

Particular impetus for the *first development* has been generated by the political and economic ascent of the emerging powers, primarily the BRIC countries (Brazil, Russia, India and China) (see Cooper/Antkiewicz 2008). In their foreign, security and resource policy, they are more interested in securing a higher (power) status in international politics than in multilateralism, which they see as challenging or threatening their traditional notion of sovereignty. The same applies, to some extent, to other potentially "leading" or "regional" powers such as Argentina, Egypt, Iran, Indonesia, Saudi Arabia, Pakistan and South Africa (see Husar et al. 2008). The common feature of these countries' foreign policy is that they are pushing for more participatory and decision-making rights in the established multilateral institutions, thereby challenging these institutions' established rules more or less overtly. In some cases, they are also withdrawing from global arrangements and regimes which, however, are highly unlikely to be successful without their participation (examples are a global climate regime without China and India, a nuclear non-proliferation regime without India, Pakistan or Iran, a global energy policy without Russia or China, and

efforts to combat international terrorism without Saudi Arabia and Pakistan). In other words, these states have growing potential to block initiatives within the emerging global governance architecture – but without claiming a global governance role for themselves.

The *second development* relates to the ongoing internal crisis in the established international organisations and regimes, mainly represented by the United Nations (UN), the Bretton Woods institutions (World Bank / International Monetary Fund), and international regimes such as the Kyoto Protocol in the context of international climate policy. This internal crisis is characterised primarily by a massive backlog of reforms. Proposed reforms are hopelessly inadequate to deal with the problems facing the world. This weakening of established institutions is partly the consequence of the first development, but it is also the outcome of "home-grown" problems: in the international organisations, decision-making processes are cumbersome and lacking in transparency, exacerbated by mutual obstruction. Often, consensus-finding takes place at the lowest common denominator. There are also considerable deficits in policy coherence, along with deficits in implementing decisions and sanctioning breaches. In parallel, a plethora of highly specialised technocratic regimes exist which, however, lack attachment to a political meta-structure and appear to be poorly suited for acting for the global public good, e.g. for achieving world peace, international security or an intact environment, and for dealing with related problems.

## Variants of informal global governance

These processes have resulted in a softening of global governance, with increasing dispersion into informal, weakly institutionalised structures, particularly apparent since 2001 in the field of security policy, but evident – to varying degrees – in other policy areas as well. Three variants of informal multilateral governance can be identified, which, taken together, show the extent to which international political processes are now characterised by growing informalisation (see also Daase 2009, p. 295). None of the three types is fundamentally new; each has historical precedents or precursors. However, it is noteworthy that governments, over recent years, have increasingly made use of these options and that the significance of these formats has therefore grown:

- (a) informal governance through "clubs of lobbyists", which operate within the existing international organisations and regimes,
- (b) informal governance through "clubs of the willing" outside existing international organisations and regimes,
- (c) informal governance through "clubs of the relevant" (*club governance*) outside existing international organisations and regimes.

### Clubs of lobbyists

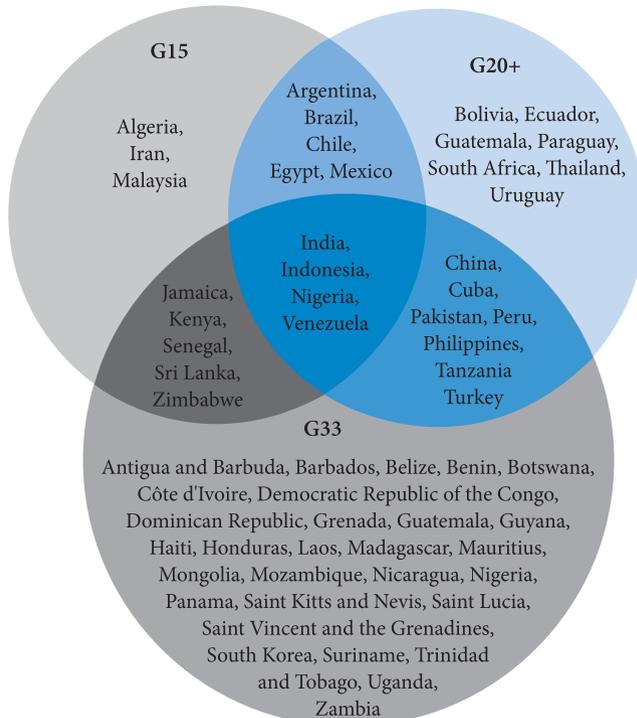
The first variant is the type of informalisation practised within international organisations. It arises when member states reach informal agreements and form alliances or lobby groups within existing international organisa-

tions in order to be able to pursue shared interests more effectively. From a functional perspective, this variant of informalisation, which is based on the pooling and articulation of member states' interests, enables them to increase their opportunities to participate in policy-making within the organisation concerned. Furthermore, by working together via these informal arrangements to assert their common interests with a view to developing possible lines of compromise, they may also help to improve the effectiveness of the organisation itself.

Within the WTO, for example, "Green Room" meetings are held, in which delegations seek consensus on trade issues informally under the chairmanship of the Director-General. In 2003, in advance of the

world trade talks in Cancún, a group of 20 developing and newly industrialised countries (G20, now G20+ with 23 members) was formed, calling for reductions in agricultural subsidies and a lowering of import restrictions for farm products by the US and the EU. Then in 2006, during the WTO's Doha Round of trade negotiations, the Group of 33 (G33) was formed as a negotiating coalition whose aim was to secure special conditions for developing countries in the agriculture sector (see Manz 2007, p. 25ff.) [see Figure 2]. Within the UN framework, the Group of Four (G4) was formed in 2004, comprising Germany, Brazil, India and Japan, which are bidding for permanent seats on the UN Security Council and a comprehensive reform of this institution. This expansion of

**Figure 2: Clubs formed by the developing and newly industrialised countries in the trade policy context**



Source: Authors' own graphics

the Security Council is opposed by a grouping known as "Uniting for Consensus" (nick-named the "Coffee Club"), whose 40 or so members include Argentina, Italy, Canada, Colombia, Mexico and Pakistan (see Volger 2007, p. 520ff.). This variant is not a new phenomenon, as the Group of 77 (G77), formed in 1964, shows. The G77, a loose, weakly institutionalised grouping of developing countries whose membership has now increased to 130, sees itself as a lobby for the Global South within the UN.

### **Clubs of the willing**

The second variant of informalisation consists of "clubs of the willing" outside the existing international organisations. "Clubs of the willing" are an expression of selective multilateralism. This form of multilateral governance is selective, firstly, due to its exclusive membership structure: these are groupings of like-minded parties. The spectrum here ranges from (ad hoc) "coalitions of the willing", alliances and cartels (e.g. *the Organization of the Petroleum Exporting Countries* – OPEC) to informal networks of government bureaucrats through to lobbying and pressure groups. At the same time, this makes it easier for governments to go *forum shopping*, seeking out formats which conform to their interests (and if necessary founding new formats) rather than operating within an existing institutional framework and campaigning for their positions there. This type of informal governance is also selective in terms of its agenda: these groupings are primarily concerned with pursuing their own interests – often focused on dealing with specific problems – and are less concerned with acting for the global public good. In all cases, institutionalisation is deliberately kept weak in

order to maintain the informality and flexibility of these formats. These forms of cooperation can be larger or smaller, tighter or looser, temporary or more permanent; in individual cases they may be directed explicitly against others or set themselves apart from other groupings. Often, such formats are dominated by particular states which surround themselves with allies and partners on the basis of shared ideological convictions or values, and seek to articulate and assert common interests and objectives. Examples are the Iraq War coalition, the Proliferation Security Initiative and various counter-terrorism formats (e.g. *Operation Enduring Freedom*, the *East Africa Counter-Terrorism Initiative*) – true to the motto of former US Defense Secretary Donald Rumsfeld that "the mission determines the coalition". These are good examples of how governments are shifting their decision-making to *ad hoc* coalitions outside the existing international organisations.

### **Clubs of the relevant**

The third variant of informal governance consists of "clubs of the relevant", also known as *club governance* (see Schneckener 2009).

For these club formats, the criterion for membership is less the question of whether applicants are like-minded, and much more whether they are relevant for dealing with a particular problem. Thus actors possessing the resources to act for the global public good may be "relevant", as may those whose involvement is of great importance for the legitimacy of particular measures. These clubs go beyond the collective representation of vested interests and/or values, but without constituting international organisations or regimes in the formal sense. Clubs such as the G8 and G20 consist of regular, weakly

institutionalised gatherings of state representatives with limited participation; in other words, they are groupings of states with a selective membership structure. The crucial factor, however, is that these clubs nonetheless claim to be acting in the "common" interest, pursuing universal goals and delivering governance services in one or more policy fields, with beneficiaries and recipients found outside the narrow group of participants. Their activities can include exchanging information and expertise, mobilising resources, setting norms and standards, implementing practical actions, and setting up political frameworks, as was attempted, at least in part, at the G20 summits in Washington (2008), London (2009), Pittsburgh (2009) and Cannes (2011) in response to the global financial crisis. These clubs may vary considerably in terms of their degree of institutionalisation, thematic scope and "longevity". They may be strongly or weakly institutionalised. Some are designed to be permanent; others are short-lived. Their agenda may be narrow or relatively broad, or there may be potential to widen the agenda, as in the case of the G8 and G20. Other examples of "clubs of the relevant" are the intermittent *Heiligendamm Process* launched by the G8 with Brazil, China, India, Mexico and South Africa (G8+5) (see Kirton 2008), the *Major Economies Forum on Energy and Climate* (MEF) launched officially by President Obama in 2009, whose participants include not only the G8+5 but also the EU, Australia, Denmark, Indonesia and South Korea, and the *Global Governance Group* (3G) formed by 28 non-G20 nations in 2009. Forums of this kind also exist at the regional level: examples are the *ASEAN Regional Forum* (ARF) with its 27 participants or the *ASEAN Plus Three* format established in 1997, which includes China, Japan and South Korea alongside the

10 members of the *Association of Southeast Asian Nations* (ASEAN). Clubs may also be established for a specific purpose. There are various issue-specific club formats such as the *Financial Action Task Force* (FATF) to combat money laundering, the *Global Forum on Transparency and Exchange of Information for Tax Purposes* managed by the Organisation for Economic Co-operation and Development (OECD), the *Financial Stability Board* (the successor to the *Financial Stability Forum* since 2009), the *International Energy Forum* (IEF) of energy producing and consuming countries, and the *Quartet on the Middle East* (comprising the USA, EU, Russia and the UN), which has been actively engaged in seeking a solution to the Israeli-Palestinian conflict for many years.

### Between informalisation and institutionalisation

The above examples underline the extent to which informal formats have become a structural element of global governance outside established multilateralism. It is also apparent, however, that over time, these formats themselves cannot evade some measure of (weaker) institutionalisation. Processes of increasing institutionalisation / formalisation – whether in the Conference on Security and Co-operation in Europe (CSCE) (which later became the Organization for Security and Co-operation in Europe – OSCE), the G7 established by the leading industrialised nations, the G8 or now the G20 – can always be discerned. This partly has to do with the rotating presidencies and regular summits, but it also reflects the progressive expansion of the agenda, which in turn results in more

meetings at ministerial level and a plethora of preparatory meetings of government officials. The "old" Group of Six (G6) (Germany, France, Italy, Japan, the United Kingdom and the USA), for example, which began as "fire-side chats" in 1975, has now evolved into a global travelling circus with a complex web of relationships with other state and non-state actors. It has even led to the formation of new international initiatives such as the *Global Fund to Fight AIDS, Tuberculosis and Malaria* (since 2002) and the *Extractive Industries Transparency Initiative (EITI)* (since 2003), both of which were set up under the auspices of the G8 and have their own structures and funding mechanisms. A similar development pathway can be observed in the case of the *International Renewable Energy Agency (IRENA)*, initiated by a "coalition of the willing". Today, IRENA has 89 member states, various specialised committees, a Director General and a secretariat with headquarters in Abu Dhabi. The common feature of all these formats, however, is that they operate outside the UN system and the regional organisations.

## Legitimacy and effectiveness of informal governance

Differentiating between the three types of informalisation does not, in itself, reveal a great deal about the quality of each specific governance format. This must be determined by investigating the legitimacy and effectiveness of governance in the various formats. As the most enduring challenge to established multilateralism comes from "clubs of the willing" and "clubs of the relevant", rather than from "clubs of lobbyists", we will focus on the question whether, and to what extent, the first two club formats differ from formal multilateralism in terms of the legitimacy and effectiveness of governance.

### Legitimacy

This criterion has several dimensions [see Figure 3]: firstly, the question of participation (who is involved in a political decision?) (*input* legitimacy), secondly, the question of

**Figure 3: The three dimensions of legitimacy and effectiveness**

Legitimacy	Effectiveness
<b>Input (participation):</b> Who is involved in a political decision?	<b>Resource efficiency:</b> What is the ratio between the costs of the clubs and their political outcomes?
<b>Throughput (decision-making):</b> Is decision-making in the clubs fair and transparent?	<b>Goal effectiveness:</b> Are the clubs achieving the goals that they have set themselves?
<b>Output (Akzeptanz):</b> Do the addressees of governance accept the clubs' decisions?	<b>Problem-solving effectiveness:</b> Do clubs contribute to global problem-solving?

Source: Authors' own graphics

fair and transparent decision-making (*throughput* legitimacy), and thirdly, the question of acceptance of (in the sense of compliance with) political decisions (*output* legitimacy) (see Take 2009, p. 12ff.). The first two dimensions relate to procedural issues, whereas the issue of acceptance of political decisions turns our attention to the normative aspect of "good governance" in the sense of "equitable distribution / fairness" (Ecker-Ehrhardt/Zürn 2007, p. 27).

*Input* legitimacy and throughput legitimacy are generally greatest in contexts of institutionalised multilateralism, primarily the UN system as the "G193" and the regional organisations established in two waves since the Second World War (see Rinke 2011). Their decision-making processes are regulated through their charters, conventions and treaties, although the UN Security Council, for example, is unrepresentative. Indeed, the limited number of participants alone dictates that the legitimacy of the various club formats will be considerably weaker. This applies all the more if the circle of participants – as with the G8 – is regarded by outsiders as exclusive, unrepresentative and geographically skewed. Furthermore, the desired informality is necessarily associated with a lack of transparency, which can impact negatively on acceptance among those who, as the addressees or recipients of governance, are affected by the decisions or measures but are not involved in their conceptual development. The *Heiligendamm Process* and, in particular, the enhanced political significance of the G20 are largely the outcomes of a situation in which the newly industrialised countries – in effect, a "club of the affected" – voiced massive criticism of what they saw as the G8's lack of legitimacy; as they saw it, they were directly or indirectly impacted by the G8's decisions without being in a position

to influence them. The G20 – in contrast to the G8 or the G8+5 – can justifiably claim to represent two-thirds of the world's population and 90% of global GDP. This may also be the reason why the G20 is now "surplanted the G8 as the most important forum for global economic coordination" (Pohlmann et al. 2010, p.1). Even so, the G20 faces accusations that it "is a 'concert' of big countries that can dictate the new rules to all the others" (Cooper/Helleiner 2010, p. 8). Accordingly, the *Global Governance Group* was formed in 2009 at Singapore's initiative. This group, comprising 28 countries from all regions of the world (besides Singapore, members include Bahrain, Guatemala, Rwanda, Sweden and Uruguay), seeks to express the concerns of the smaller countries on the world stage and make their views better known to the G20 and the United Nations. The G20 has now responded to the criticism that it is unrepresentative by introducing a "guest country policy" [see Table 1], whereby the G20 Presidency – in the interests of geographical balance – invites non-G20 countries holding the presidency of a regional organisation in the relevant year to attend G20 meetings. In 2011, for example, Ethiopia, Equatorial Guinea and the United Arab Emirates were invited to the G20 meetings in their capacity as Chair of NEPAD, the African Union and the Cooperation Council for the Arab States of the Gulf respectively. Furthermore, G20 is seeking to intensify the dialogue with the private sector and civil society by holding a Business Summit on the margins of its meetings, as well as a Social Summit, which took place for the first time in 2011. In domestic politics, however, informal governance formats generally strengthen the executive and systematically weaken the legislature, which in many cases is barely in a position to follow the informal discussion

and decision-making processes at the international level, still less to control them. Critical observers point to a loss of democratic

legitimacy and even a transition to an era of "post-democracy" (see Crouch 2009).

**Table 1: The G20's "guest country" policy**

G20 members: Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, United States

<i>Summits</i>	<i>Countries which would otherwise not have attended</i>	<i>International organisations</i>
Washington, DC / USA 15-16 November 2008	<b>Netherlands, Spain</b>	<b>FSB, UN, IMF, WBG</b>
London / UK 2 April 2009	<b>Netherlands, Spain, Ethiopia (NEPAD), Czech Republic (EU Council Presidency), Thailand (ASEAN)</b>	<b>FSB, UN, IMF, WBG</b>
Pittsburgh, PA / USA 24-25 September 2009	<b>Netherlands, Spain, Ethiopia (NEPAD), Sweden (EU Council Presidency), Thailand (ASEAN)</b>	<b>FSB, UN, IMF, WBG, WTO, OECD</b>
Toronto / Canada 26-27 June 2010	<b>Netherlands, Nigeria, Spain, Ethiopia (NEPAD), Chile (ILO / UN), Malawi (AU) Thailand (ASEAN), Vietnam (ASEAN)</b>	<b>FSB, UN, IMF, WBG, WTO, OECD</b>
Seoul / South Korea 11-12 November 2010	<b>Singapore, Spain, Ethiopia (NEPAD), Chile (ILO / UN), Malawi (AU), Thailand (ASEAN), Vietnam (ASEAN)</b>	<b>FSB, UN, IMF, WBG, WTO, OECD</b>
Cannes / France 3-4 November 2011	<b>Spain, Equatorial Guinea (AU), Ethiopia (NEPAD), Chile (ILO / UN), Netherlands (BCBS), Singapore (3G), United Arab Emirates (CCASG)</b>	<b>ECB, FSB, UN, IMF, WBG, WTO, OECD</b>

Source: Authors' own research

**3G** (Global Governance Group)

**ASEAN** Association of Southeast Asian Nations

**AU** African Union

**BCBS** Basel Committee on Banking Supervision

**CCASG** Cooperation Council for the Arab States of the Gulf

**ECB** European Central Bank

**FSB** Financial Stability Board

**ILO** International Labour Organization

**IMF** International Monetary Fund

**NEPAD** New Partnership for Africa's Development

**OECD** Organisation for Economic Co-operation and Development

**UN** United Nations

**WBG** World Bank Group

**WTO** World Trade Organization

From an anti-globalisation perspective, the *output* legitimacy of club formats such as the G8 is also disputed, as is evident from the numerous public protests and counter-summits staged during meetings of these various institutions. Viewed from this perspective, these formats are for "neoliberal protagonists of a global 'casino capitalism'" (Ecker-Ehrhardt/Zürn 2007, p. 28), which represent vested interests and exacerbate, rather than solve, global problems.

### Effectiveness

With regard to the "effectiveness" criterion, too, three dimensions can be identified [see Figure 3]: firstly, effectiveness as defined in terms of cost-benefit analyses (this is better described as "efficiency" or "resource efficiency"), secondly, effectiveness in achieving the goals that the body has set itself ("goal effectiveness"); and thirdly, effectiveness in dealing with problems ("problem-solving effectiveness"). Disregarding the question whether efficiency can ever be a meaningful benchmark in (power-)political contexts, there are unlikely to be significant differences between the various types of governance in terms of their "resource efficiency". Differences in the quality of governance are evident, however, in relation to "goal effectiveness", i.e. as regards the question whether and to what extent the various formats are able to carry out their own decisions effectively and achieve their stated objectives. Whereas the UN system is regarded as very cumbersome and often ineffective in implementing and enforcing rules, selective formats such as "coalitions of the willing" are more likely to be able to pursue their (generally) limited objectives (more) consistently. Focusing on "like-minded

partners" certainly makes this easier - yet frictions and differences that can impair effectiveness do arise over time, even in "coalitions of the willing". The outcomes of informal governance by "clubs of the relevant" could also turn out to be more favourable than with traditional multilateralism, depending on the format and agenda. However, this says little about the "problem-solving effectiveness" of the individual formats. On the contrary, the plethora of formats offers more opportunities for the governments of industrialised and emerging countries to find "suitable" formats in which to pursue their interests, but this does not necessarily increase problem-solving capacities. And while it could be argued that "clubs of the willing" are able to operate particularly effectively, not least because participants are generally more willing to mobilise the requisite resources, there are good grounds for disputing that they genuinely make a constructive contribution to global problem-solving.

Nonetheless, in view of its limited legitimacy, the potential for club governance lies primarily in its effectiveness. The extent to which this potential is utilised will depend, however, on whether participating governments are willing to agree on joint solutions and implement these solutions on a political, legal and institutional level. Experience with the G20 summits suggests that under pressure from a massive economic and financial crisis, the former may well be possible, whereas there are still major deficits with the latter, such that many decisions are likely to remain mere declarations of intent.

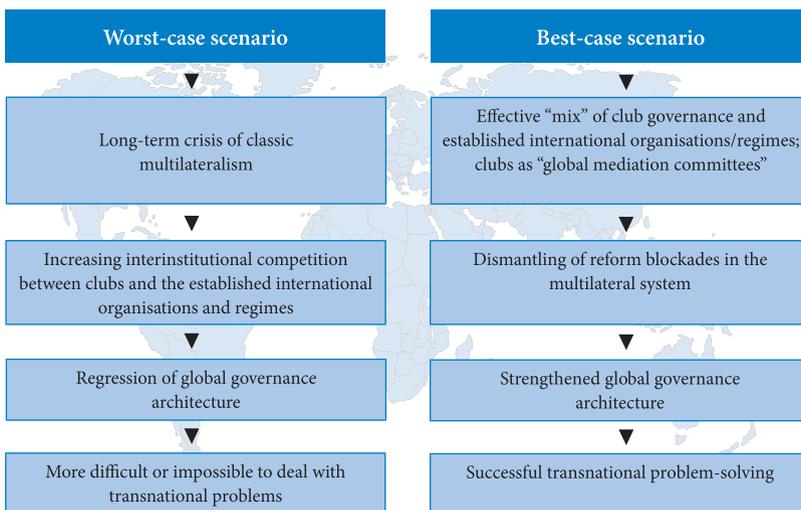
## Outlook and policy recommendations

In light of recent developments, it seems very likely that the informalisation of multilateral governance will continue. This raises the question, now more than ever, of the probable implications for global governance of this shift towards clubs and coalitions [see Figure 4].

The "worst-case scenario" predicts a long-term crisis of classic multilateralism, combined with an absence of any overarching meta-structure for the various governance formats. According to this view, club formats will lose their experimental status (see Kaul 2010, p. 38) in the global governance laboratory and will become fixed quantities, increasingly locked in interinstitutional competition with the established international organisations and regimes; indeed, they may

progressively squeeze out and replace these established elements of global governance, which are increasingly viewed as "past their sell-by date" (Zürn 2010, p. 20). These fears are not entirely unjustified, as is evident from the fact that: "Instead of establishing itself as a central component of the G-20 model ... the UN was gradually marginalised from the process" (Cooper/Helleiner 2010, p. 7). Indeed, from this perspective, the ultimate outcome may be "a shift back to the multilateral order of the 19th century" (Ecker-Ehrhardt/Zürn 2007, p.30). This regression is by no means inconceivable, especially given that the informal formats of multilateral governance outside the international organisations are potentially antagonistic to one another, thus threatening to encourage the mindset that participants' own interests may if necessary be asserted at others' expense. This type of institutionalised multipolarity is highly unlikely to strengthen multilateralism;

Figure 4: Prospects for multilateralism



Source: Authors' own graphics

on the contrary, it will make it more difficult to break deadlocks. Ultimately, there is a concern – not only from a distribution policy perspective – that the balance of world politics will increasingly shift at the expense of the poorer and weaker who will continue to be affected by structural inequality and lack the capacity to negotiate the complexities of informal – and other – formats. Hypothetically, it may even be the case that in future, the only parties to gain a hearing in the international political arena will be those who are capable of utilising all the various governance formats. Certainly, a seat in the UN General Assembly will no longer be enough.

The "best-case scenario", by contrast, is based on the assumption that an effective "mix" can be achieved between club governance and established organisations. The prerequisite, however, is that global or regional club formats place themselves at the "service" of the established organisations and regimes. From this perspective, the club formats – in a de facto role as "global mediation committees" – would be utilised for informal negotiations and the search for compromises, thus preparing the way for legally binding arrangements, supporting decision-making processes in other forums and in some circumstances overcoming deadlocks which are impeding reforms within the multilateral system, whether in the UN Security Council, in IMF and WTO reform, or in the further development of peacebuilding activities, including the role of peace operations.

One argument in favour of this scenario is that clubs are already delivering their governance services to some extent with the involvement of international organisations (see Gstöhl 2007). For example, the heads of state and government of the G20 countries, at their summit in Seoul in 2010, agreed a reform of the IMF's quota and governance

structure, which will give the newly industrialised and developing countries a greater say in the IMF's decision-making bodies in future. The G20's "guest country policy" – with representatives of various regional organisations being invited to G20 summits – also signals a move in this direction.

The probability that reform blockades in the multilateral system will be overcome is all the greater if formats such as the G20, the G8+5 and the *Major Economies Forum* deal with a variety of policy areas and therefore – unlike the specialised regimes – also offer the possibility of cross-bargaining with a view to achieving more comprehensive policy packages which reflect a broader set of interests and take account of the fact that security, development, environmental, economic and financial policy can no longer be viewed in isolation and that a "joined-up" approach is required. It is important, in this context, to give due consideration to the increased entitlements and aspirations of the "new powers" in these formats and also in the forthcoming reforms of international organisations, and, at the same time, to encourage these "new powers" to participate constructively in global problem-solving.

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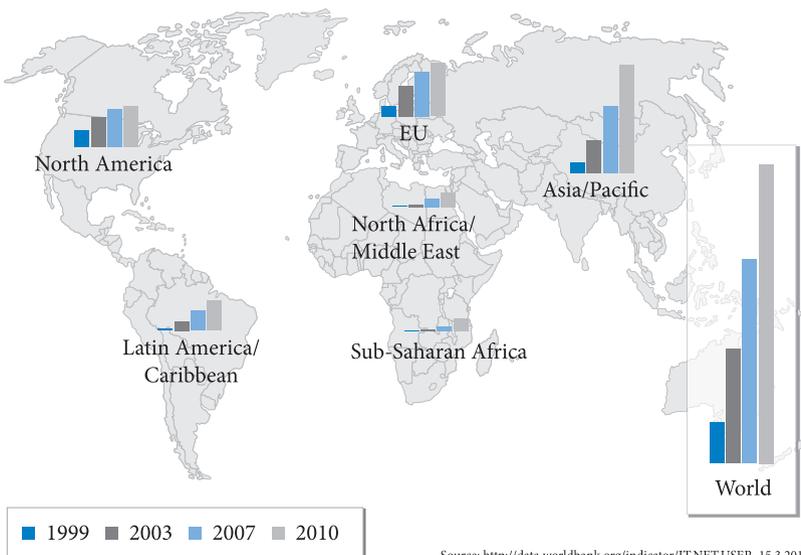


# Revolution 2.0? The Role of Digital Media in Political Mobilisation and Protest

*Jan Hanrath / Claus Leggewie*

Since the 1990s, the rapid diffusion of new electronic communications ("new media") and technological advancements in this field have changed the role of these media in society. This trend also impacts on the opportunities for political mobilisation and protest. Unlike the traditional mass communications, with newspapers and TV as lead media, the use of the Internet via computers and mobile phones facilitates individualised mass communication, allowing user-generated content to be shared with a virtual community. In this way, users can bypass governments and the mainstream media, in their established roles as conceptual, commercial and organisational gate-keepers and agenda-setters, and use the World Wide Web to transcend the local and, indeed, the national public spheres. With reference inter alia to the upheavals in North Africa and the Middle East, this article demonstrates that the opportunities afforded by the digital media, especially new social networks such as Facebook and Twitter, etc., should, nonetheless, not be overestimated, and that besides having a potentially democratising and emancipatory effect, these new media harbour a number of risks and potential for misuse.

**Figure 1: Dramatic increase in global Internet usage**  
Development of global Internet usage by region, 1990-2010



Source: <http://data.worldbank.org/indicator/IT.NET.USER>, 15.3.2012

## From "one-to-many" to "many-to-many" - the development of Web 2.0 and its political significance

The dawning of the Internet age in the early 1990s opened up the possibility of worldwide access to information and almost unlimited data exchange. In the early days, one-to-many communication predominated, with given content available on globally accessible web sites. However, from the start of the new millennium or thereabouts, the focus steadily shifted towards interactivity (many-to-many communication). Increasingly, with the relevant software and online applications, users were now able to generate and disseminate their own content, with the result that the use and perceptions of the Internet began to change. This phase of development is generally summed up as "Web 2.0".

Alongside an increasing focus on interactivity in existing formats, new social media became more important, enabling users to connect and network with each other [see Table 1].

The new media and their online networks [see Table 2] encapsulate the latest stage of the Internet's development. Key features of social networking sites are 1.) the development of a public or semi-public profile within a defined system, 2.) the generation and display of a list of other users with whom a connection exists, and 3.) the exchange of information within this network. The focus is on networking and exchange of private, consumer- and entertainment-related data and information (boyd/Ellison 2007).

**Table 1: Web 1.0 and Web 2.0 - a comparison**

<b>Web 1.0</b>	<b>Web 2.0</b>
One-to-many communication	Many-to-many communication
Given content	User-generated content
Personal web sites	(Micro-)blogs
Webmaster	Community
Consumer	Prosumer (producer + consumer)
Directories (taxonomy)	Free keywording (folksonomy / social tagging)
Static	Converging media formats
Online versions of classic encyclopaedias	Collaborative encyclopaedias (wikis)
Around 45 million users worldwide (1996)	Around 2 billion users worldwide (2012)

Source: Authors' own graphics

**Table 2: Classification of social media**

		Social presence / media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g. Facebook)	Virtual social worlds (e.g. Second Life)
	Low	Collaborative projects (e.g. Wikipedia)	Content communities (e.g. YouTube)	Virtual game worlds (e.g. World of Warcraft)

Source: Haenlein/Kaplan 2010, p. 62

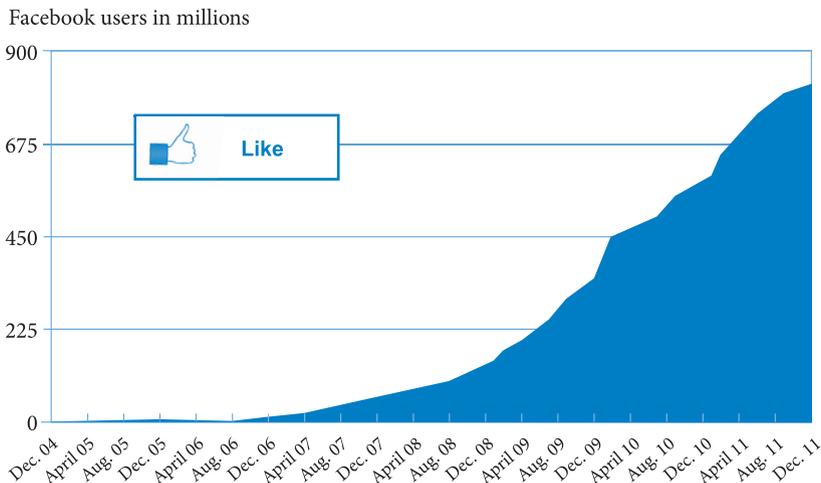
The global market leader – and often used as a synonym for online social networks – is Facebook, which during the eight years or so of its existence has recorded a dramatic increase in user numbers [see Figure 2].

In the debate about the political significance of modern communication tools in general, one question which arises is what the Internet's evolution into Web 2.0 means for political communication and participation, and what has actually changed. The fact is that the Internet – whose scope and usage have increased exponentially since the 1990s – was not a new medium in the strict sense, but rather a convergence of all the previously

known formats into a hypermedium.

Generally, though, hypotheses that the Internet, to all intents and purposes, automatically facilitates political mobilisation and promotes democracy, fall short of the mark. The same applies to technology-indifferent positions which regard the Internet as merely a new (mass) medium which leaves the business of politics essentially unchanged. Web 2.0 in particular is not just a new social and political arena; new forms of political culture are clearly also emerging here, reshaping the political space in relation to the usual dichotomies of public vs. private, institutional vs. civil society, professional vs. grassroots

**Figure 2: Facebook: a global phenomenon**  
Number of Facebook users worldwide, 2004-2011

Source: <http://www.benphoster.com/facebook-user-growth-chart-2004-2010/>, 15.3.2012

politics/volunteering etc. and thus increasing the significance of what is, from a professional political perspective, the "pre-political space". In the relationship between technology and society, it was long assumed that social relations would determine the technology; in reality, however, the relationship tends to be one of interaction, with technical communications infrastructure also influencing the structures of social organisation and providing a format for political participation and activism (Leistert/Röhle 2011). In this sense, it is appropriate to talk of an evolving (political) culture of the Web 2.0. The Internet is now more than just an online media platform; its networked structure – which lacks any formal or thematic nucleus and does not depend on the membership-based organisation which was previously so important for political mobilisation – influences social relations and personal and collective identity constructs alike (Bieber/Leggewie 2012).

For that reason, new social media such as blogs, Facebook and Twitter have become a particular focus of attention in analyses of the recent upheavals in the Middle East as well as earlier protests elsewhere in the world (e.g. Myanmar in 2007; Moldova in 2009). To most observers, it seems obvious that these new media have played a role in the organisation and reporting of the uprisings and protests. However, their precise role and significance in the events as they unfolded are unclear and contentious: "Internet enthusiasts" talk about the dawning of a new age of political mobilisation and even claim that the new media are a catalyst for social and political change (Jarvis 2011; Shirky 2008). Although he does not completely disregard the negative impacts, Diamond (2010, p. 70) explicitly refers to "liberation technology", which, he says: "...enables citizens to report

news, expose wrongdoing, express opinions, mobilize protest, monitor elections, scrutinize government, deepen participation, and expand the horizons of freedom." More sceptical observers have their doubts about this, however: they draw attention to the negative impacts of new technologies and the potential for their misuse, and caution against excessive optimism (Morozov 2011; Gladwell 2010; York 2010). Some evidence for both positions can be found in the recent upheavals in North Africa and the Middle East, which the Western media in particular have often described as the "Facebook revolution", especially as Internet usage figures show that the number of languages being used in the Internet has also increased [see Figure 3].

### **Protest mobilisation and online communication in North Africa and the Middle East**

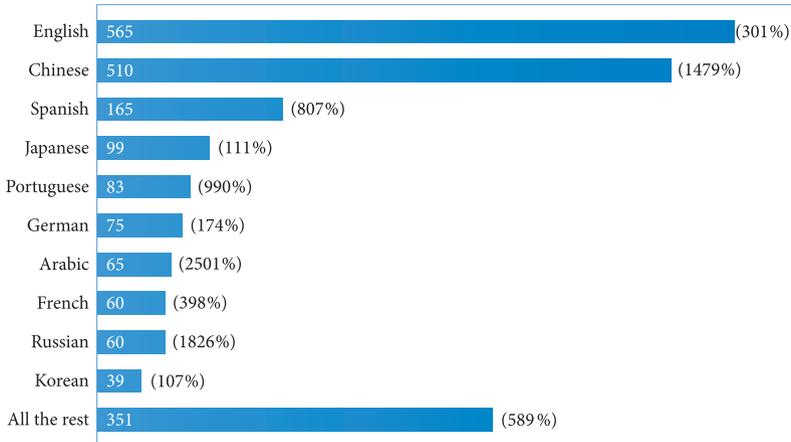
After years of stagnation in ossified authoritarian structures, North Africa and the Middle East experienced the formation of democracy movements in 2010/11, following on from the fledgling movements which emerged in the 1980s (Algeria) and the early 21st century (Kefaya movement in Egypt). Although discontent had been simmering beneath the surface of the region's societies for years, the timing, speed and above all the initially rapid success of the movements in Tunisia and Egypt took most observers by surprise.

The key characteristic of the mass movements was their social and ideological breadth. In the successful protests in Tunisia and Egypt, but also in countries such as Bahrain, Yemen and Syria, economically

### Figure 3: Language diversity in the internet

Internet world users by language (in millions, % increase 2000-2011 shown in parentheses)

In millions of users (as at 31.5.2011)



Source: <http://www.internetworldstats.com/stats7.htm>, 15.3.2012

and socially disadvantaged and weak sectors of society protested alongside intellectuals, civil servants, old and new middle classes, members of the business community and trade unions. Urban and rural communities, women and men, young and old were all represented, as were the right and left of the political spectrum and religious and secular movements. The use of the new media appeared to play a particularly significant role in organising the protests and bringing them to the world's attention (Hanrath 2011).

Even before this, the phrase "Twitter revolution" had been coined to describe the protests against the rigged elections in Iran back in 2009. A former member of the USA's National Security Council even went as far as to say that Twitter should win the Nobel Peace Prize. It soon became apparent, however, that some of this was wishful thinking and that in reality, it was the traditional forms of communication, such as word-of-mouth and flyers, which played a far more important role than the new media in organising local

protests and mobilising the urban masses. Compared with most other countries in the region, Iran has a high Internet penetration rate and a lively blogosphere. In their book *Blogistan: The Internet and Politics in Iran*, Sreberny and Khiabany (2011) argue that the widespread practice of blogging must be contextualised and analysed in relation to the wider socio-political and cultural environment. They make it clear that blogging cannot be equated with political activism, although they acknowledge that many forms of Internet usage in an authoritarian and highly regulated context can have a political dimension. They therefore categorically refute any characterisation of the 2009 protest movement as a "Twitter revolution". "There is little evidence that Twitter and Facebook or YouTube played a major role in organising demonstrations. They did become channels through which messages could be sent to international media organisations that had little access and first-hand information about what was happening in Iran. These sites also attracted messages

and actions of international solidarity as well as mobilising the Iranian diaspora." (Sreberny/Khiabany 2011, p. 175). For the diaspora, the role of the new media was key. The green wave showed how much can be achieved within a repressive context. But it has also shown "that technologies in themselves are insufficient substitutes for political strategy, goals and discourse" (Sreberny/Khiabany 2011, p. 181). The same applies, by extension, to the Arab democracy movements in 2011.

In Tunisia and Egypt, the importance of social networks in organising protest increased significantly; for example, within a very short time, tens of thousands of people in Egypt "liked" the Facebook page "We are all Khaled Said" which urged people to join the protests. But here too, flyers and traditional modes of communication contributed significantly to mass mobilisation. This is borne out by statistics on media usage in Arab countries. Although regular Internet usage has increased here in recent years, the majority of the population continues to obtain much of its information from international news broadcasts on TV, with the Internet trailing far behind in second place [see Figure 4].

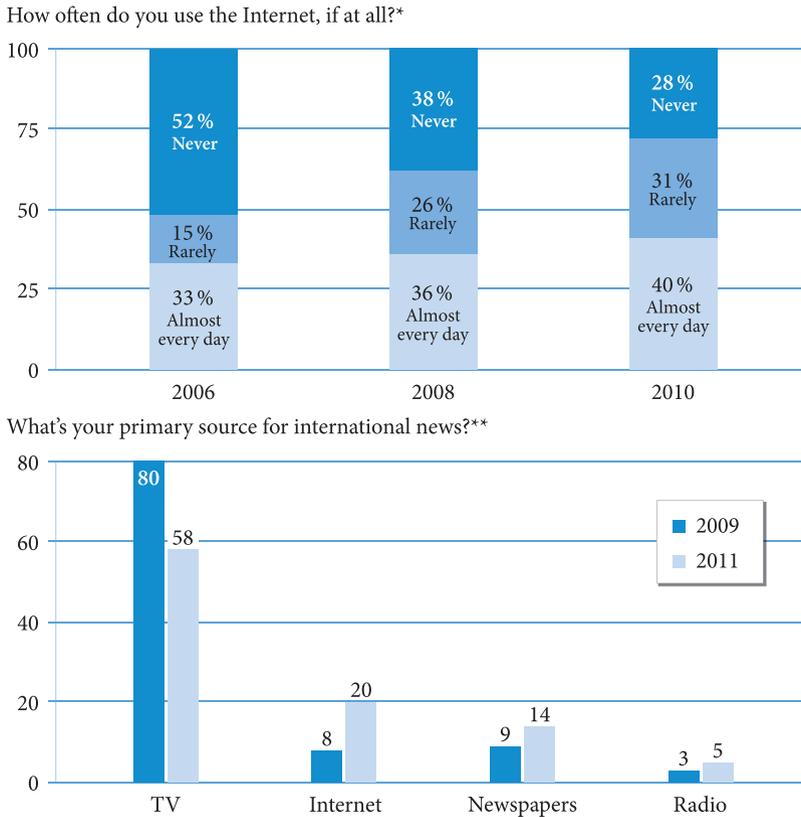
Internet-coordinated protests were important in gathering an impressive crowd for the initial protests in Tahrir Square in central Cairo. However, the mobilisation of millions of people across all the regions of Egypt was only possible with traditional structures to which certain trade union movements, the well-organised Muslim Brotherhood, and the "ultras" – groups of hardcore supporters of various Egyptian football clubs who were accustomed to clashing with the security forces – had access after they had joined the protests (Amar 2011; Montague 2012). Yet again, however, it was the interplay between the new and the

traditional media which proved to be the key factor: the traditional media seized on information from the new media and thus acted as a loudspeaker and "amplifier" for news from individual Internet activists. The two forms of media relied on each other for success or to make a significant contribution to the revolution. The protests as a whole were more difficult to organise in contexts where this interplay was impossible to achieve (Richter 2011).

The significance of new media and the Internet as a whole must therefore be viewed in relation to more traditional media such as the newspapers and, above all, television. Transregional Arab TV channels such as *Al Jazeera* and *Al Arabiya* made a major contribution to the revolutions' development. Through their reporting, they disseminated information about the protests across the region as a whole and showed that the regimes were losing control. In this way, they helped to ensure that the protests spilled over to other countries as well. Through their broadcasts via satellite to a wide area – and, until some leaders intervened, via local cable networks as well – and due to their influence on the Arab public, these stations showed that the regimes in the region could be challenged and overthrown.

The protest movements in the Middle East are a good example of how the new media are being used, not only by protesters. They also show that the use of these media is fraught with risks. Regimes have a wealth of opportunities to limit the use of the new media, at the very least. Some governments attempted to block Internet access and restrict the use of mobile phones. On 27 January 2011, the Egyptian government under ex-President Hosni Mubarak imposed an almost total Internet blackout across the country for several days. The security forces and secret

**Figure 4: Despite an increase in Internet usage, TV is still the primary information source in Arab countries**



\* The figures are based on surveys conducted in Egypt, Jordan, Lebanon, Morocco, Saudi Arabia and the United Arab Emirates.

\*\* The figures are based on surveys conducted in Egypt, Jordan, Lebanon, Morocco and the United Arab Emirates.

Source: Telhami 2010, S. 79; 2011, p. 57

services in various countries also attempted to identify activists from Youtube videos and encouraged users to denounce members of the protest movements. The regimes also used the new media themselves to get their message across and mobilise support.

Based on the observations on the use of new media by the protest movements in North Africa and the Middle East and the regimes' reactions to these technologies, the following sections consider their potential significance for political mobilisation and

protest in more general terms. The impact of the new media on politics can be better understood through a framework that considers five levels of analysis (see Aday et al. 2010):

- (1) Promoting individual transformation,
- (2) Changing intergroup relations,
- (3) Facilitating collective action,
- (4) Garnering external attention,
- (5) Changing regime policies.

### **(1) Promoting individual transformation**

It is often assumed that the new media can affect political mobilisation and protest "via their effect on individuals who either actively participate in or are exposed to such communication flows." For example, "some individuals may develop *new competencies* through their exposure to or participation in new media, allowing them to participate more readily or effectively in real-world politics or to process information differently" (Aday et al. 2010, p. 9). This can increase self-confidence and widen individuals' scope for action. On the other hand, new media could bring about more individual passiveness. Morozov (2011) calls this type of pseudo-activism *slacktivism*, describing a form of "feel-good" activism which has little social or political effect. There are countless examples of Facebook pages which show that just because specific issues attract a large number of "likes", this is no guarantee that planned demonstrations will be well-attended or that large amounts of money will be received in donations. On the other hand, it could be argued that these looser forms of participation bring people closer to specific initiatives and politicise them, enabling them to gradually climb the "commitment ladder". Overall, online content affects users in highly diverse ways. On the one hand, it is possible that the diversity of (new) information will reflect and modify current opinions. On the other hand, selective usage could simply entrench existing political positions (Sunstein 2001).

### **(2) Changing intergroup relations**

New media may reshape discussions and debates within and across groups in a society, changing intergroup relationships and atti-

tudes. Optimists see the Internet as generating positive connections, spreading information, and proliferating points of contact across political, sectarian, or geographic divides. Drawing on Putnam's (2000) concept of social capital, they refer to the possibility of increasing *bridging capital* through social networks. *Weak ties* in particular open up channels for the exchange of new information and for gaining new perspectives (Granovetter 1973). However, pessimists fear its ability to polarise, as people seek out congenial relationships and bias-confirming information, which may prevent a new culture of debate from emerging. Generally speaking, the local context must be taken into account. New media and the Internet as a new public sphere never operate in a political or social vacuum but are highly dependent on the specific socio-cultural context, Internet diffusion, quality of access, the degree of state censorship, and differences in user behaviour. All these factors play a key role. For example, widespread access to the Internet or the existence of a diverse blogosphere says very little about the degree of politicisation. The cultural significance of the Internet varies considerably from place to place according to people's diverse experiences, needs and aspirations. In democratic societies, cyberspace is often viewed as an "alter" space of information, research and leisure that functions in a parallel or complementary fashion to existing public spaces and institutions. In countries where public spaces are highly regulated and are controlled by traditional or restrictive cultural forces, however, the Internet can take on varied signification (Amir-Ebrahimi 2004). Here, the private, the seemingly non-political, including sexual mores – a particularly sensitive issue in North Africa and the Middle East – and also women's equality and religious criticism all acquire a political dimension.

### (3) Facilitating collective action

Many authors consider that the greatest opportunity afforded by the new social media is their potential for individuals and groups to organise, protest, mobilise support or take other forms of collective action. There are a number of plausible mechanisms how new media might do so. New media may reduce the transaction costs for organising collective action, by facilitating communication and coordination across both physical and social distance. Social networking sites such as Facebook make it easier than before for like-minded individuals to make contact with each other. This counteracts the fragmentation and social isolation which typically exist in authoritarian regimes and which act as a mechanism for enforcing political conformity and silencing dissenting views. The networked nature of social media may undermine hierarchical, top-down movements and generate new forms of "flat" social movements.

The new media can also effect or reinforce a change in the public's perception of the political mood, thus overcoming one of the greatest obstacles standing in the way of mass protests. Although individuals may be dissatisfied with a political regime, they may also be reluctant to state their opinion openly, for fear of being sanctioned by state and/or society. Mediated via the new media, which publicise the broad range of oppositional views, this fear can be overcome and an individual's personal opinion can be expressed and acted upon. These "informational cascades" (Lohmann 1994) then create an ever-increasing willingness to participate in public protests.

Collective action and attempts at mobilisation are not necessarily bound to positively connoted content, however. It is just as

easy to find pro-violence campaigns on the social networking sites as it is to find democracy and poverty reduction initiatives. One particular Facebook group, for example, is demanding the execution of Hamza Kashgari, a Saudi Arabian blogger and critic of Islam; this group has tens of thousands of supporters. Extremist terror groups and neo-Nazi agitators utilise the opportunities for online mobilisation in the same way as pro-democracy activists. Campaigns by global Internet activists, e.g. the loose political entity referred to as *Anonymous*, and targeted online attacks such as denial-of-service attacks or hacking of unpopular web sites are generally illegal and operate in what is, ethically speaking, a grey area (Coleman/Ralph 2011).

### (4) Garnering external attention

The new media are playing an increasingly important role in the regional and global dissemination of information about current events and developments at the local level. With *twitterfeeds* and status messages on Facebook, these events can be followed as they unfold, on any computer or mobile phone worldwide. Blogs and video clips can be posted on the Internet to inform the world about protests and regimes' reactions. This guarantees publicity for the demonstrators which may occasionally, in some political contexts, also protect them from harsher reprisals at the hands of the security forces. The traditional media outside the country concerned also rely on the Internet as a source of up-to-date information. As described above in relation to Iran, this may ultimately be more successful at gaining international publicity than at mobilising political protest in the country itself (Esfandiari 2010). The new media also offer the opportunity to

document the actions of authoritarian regimes and, in some cases, to bring perpetrators to justice later.

**(5) Changing regime policies**

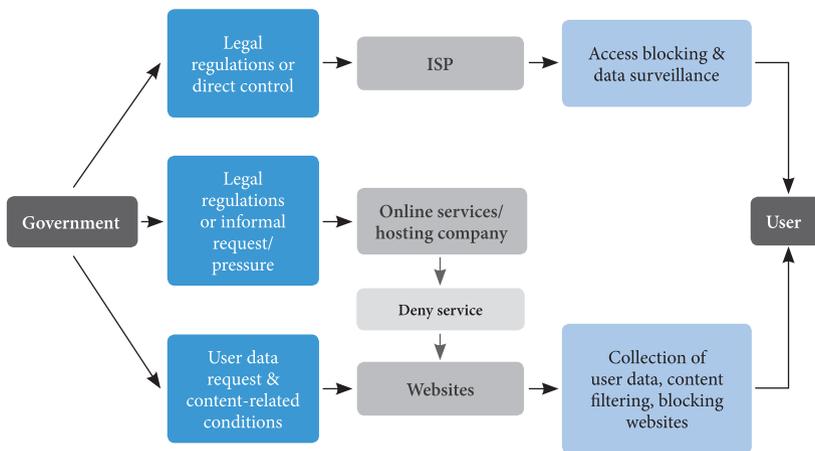
It is often optimistically assumed that the new media mainly serve the cause of activists and the opposition. However, authoritarian regimes are also using the new technologies for their own purposes. Regimes have a wealth of opportunity to control and censor [see Figure 5]. These range from draconian regulation of all forms of information and communication technologies to direct action against Internet activists. They may also engage in their own forms of online activism. In many countries, all providers of online services must comply with stringent controls on their technical systems and content. In Iran, for example, data transmission speeds are restricted in order to deter people from accessing certain services such as video clips. Strict conditions are attached to the granting

of licences to Internet service providers (Sreberny/Khiabany 2011). Some regimes require servers to install filtering software - often imported from the West - to enable content filtering; in this way, they can control their citizens' access to information (Deibert et al. 2008).

Access to entire web sites is denied for cultural, religious or political reasons, proxy servers are disabled or specific search terms are blocked (Opennet Initiative 2012). One example is Turkey, which recently circulated a list of 138 words to Internet providers, requiring them to block access to sites containing these words. After the events in the Middle East in 2011, China blocked search terms such as "Egypt", "Tunisia" and "Jasmine". As occurred in Egypt (see above), these restrictions can include shutting down the Internet completely. In China, the entire province of Xinjiang lost its Internet access for a full 10 months after unrest broke out there in 2009. Authoritarian regimes also collect online data in order to target specific individuals and opposition groups.

**Figure 5: How is the Internet being censored?**

**Governments have various options to control Internet access and collect user data**



Source: <http://open.youyuxi.com> 15.3.2012, with additional input by the authors.

In the Western democracies, too, there is growing concern about overzealous data collection by the major Internet companies and the casual way in which users post about the most personal details of their lives. Here, concerns about the "transparent citizen" mainly focus on the erosion of informational self-determination and the economic exploitation of personal data. In authoritarian regimes, however, the state's role in information-gathering gives much greater cause for concern, for in these systems too, many young people share personal information via their online profiles without a second thought, and there is a much greater risk here that regimes will collect and use this information to target and bring pressure to bear on individuals and their friends and families. Authoritarian governments learn from other regimes' experiences and share information about the most effective ways of dealing with demonstrators and quelling protests at an early stage. Besides censorship and control of the Internet, authoritarian regimes have increasingly engaged in their own online activism in recent years, publishing blogs and maintaining a presence on Facebook, Twitter, etc. What's more, some of these governments support non-political entertainment sites or

even promote the dissemination of pirated entertainment material in order to keep the general public in a state of compliance.

### The new media: between opportunities and risks

The new media are therefore in an ongoing state of tension. On the one hand, they offer democratising, emancipatory and mobilising potential; on the other, they open the way for repression and surveillance [see Table 3]. This applies to many states in the Middle East, but it also applies to China, for example, where there is "an uneasy equilibrium between the forces of freedom and the forces of control" (Lagerkvist 2010).

In addition, various risks arise from the profit-oriented nature of these media. The inventors of the Internet were sceptical about excessive government involvement, political control and legal regulation; indeed, the development of the Internet occurred during the phase of neoliberal deregulation. It would be disastrous if Internet users today focused solely on the (entirely justified) mistrust of

**Table 3: New media between mobilisation and repression**

Advantages and potential	Disadvantages and risks
Circumventing the authorities	Blocking web sites, filtering search terms
Developing new competencies/Garnering support	Switching off providers and proxy servers
Building social capital	Providing non-political entertainment sites to divert attention
Low transaction costs	Regimes' own online activism
Overcoming information barriers	Collecting personal data in order to target and pressurise
Informational cascades	Direct action against bloggers and Internet activists
External attention	
Documentation	

Source: Authors' own graphics

state monopolies of power and ignored the combined impact of online oligopolies such as Facebook, Google, Microsoft, Amazon etc. Viewing these corporations as the spearhead of democracy fails to take account of their commercial role as private enterprises. Notwithstanding all the benefits afforded by networking and the exchange of information via these web sites, generating value-added for the provider is, ultimately, a primary element of their *raison d'être* (Andrejevic 2011).

The virtual space occupied by the new media cannot serve as a genuine substitute for civil society. Digital communications alone are not enough to build a sustainable civil society. The offline world is still the primary arena. Nonetheless, online media enable protest movements and uprisings to benefit from worldwide networking while reducing the transaction costs of collective action. These opportunities are being exploited by non-governmental organisations (NGOs) and initiatives which campaign on issues as diverse as a landmine ban, fair trade and child poverty, as well as by broader anti-globalisation movements and the Occupy movement launched in 2011. In this way, moves towards a web-based transnational public sphere have begun, as Internet-based theme-specific networks with transnational collective identities interact with more strongly hierarchical NGOs and mainstream media.

It would therefore be quite wrong to conclude, from this qualification of the assumptions made about the "Facebook revolution", that it is an either-or situation – online activism vs. traditional activism. What we are witnessing instead is the "digitally enhanced" activism of a political opposition which is willing to engage with the described dialectic – subversion, control and market logic – that is generated by the new media. Mass mobili-

sation, uprisings and regime change need historic escalations, courageous actors and society's willingness to take action; they take place not in some imagined virtual space but are very real events which play out in streets and public spaces. A revolution's success is decided not on the Internet but – as has always been the case – in struggles for power and compromises between old and new elites.

Overstating the role of the new communication technologies poses other risks as well. Revolutions are complex events which are oversimplified by a focus on the new media alone. Even if their role is qualified, there is clear framing in favour of a causal role for these media. This obscures the other causes of revolution. What's more, in relation to North Africa and the Middle East in particular, an outdated orientalism comes into play – a specifically Western view of these regions and the societies in the Arab world. To construe the Arab Spring as a response to Facebook and the new media is not as harmless a gesture as it may initially appear. It is, in fact, the latest method of perpetuating an old and recurrent stereotype. To suggest that these events were heralded by the new media is to give in to an old, racist fiction and to resurrect the fabled figure of the primitive who, having no agency of his or her own, is compelled to action as a response to superior Western technology or leadership (Burriss 2011). When riots break out in Western countries, as occurred in London and other UK cities in 2011, for example, they are generally attributed to economic inequalities and social conditions, with the Internet and mobile phones seen merely as useful communication tools. In other, non-Western contexts, however, they are regarded as causal. In this way, it is the tools deployed by the protest movements – rather than the issues and overall conditions – which colour the perceptions of

these revolutions.

The ambivalence surrounding the new media must therefore be taken into account by activists, policy-makers and media alike – avoiding any euphoric celebration of a "new era" of Internet revolutions, but also without rejecting, out of hand, the opportunities afforded by these technologies.

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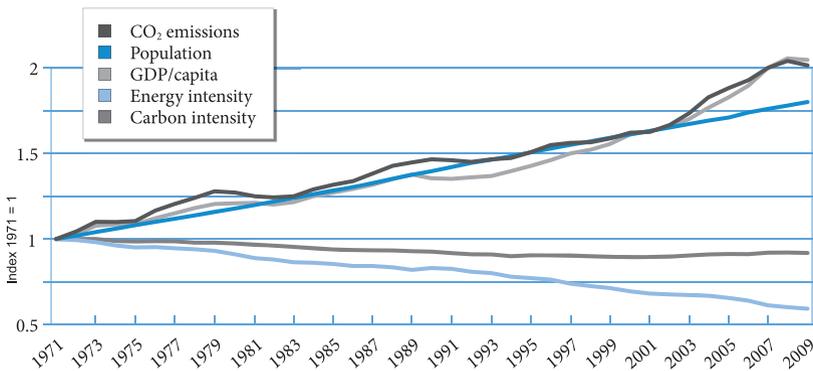
# Transforming the Global Energy System - Pathways Towards a Sustainable Energy Supply

*Ottmar Edenhofer / Christian Flachsland*

It has not yet been possible to decouple economic growth from rising greenhouse gas (GHG) emissions and thus limit global warming, with its potentially catastrophic consequences. On the contrary, global emissions are continuing to rise unabated. Actions to mitigate climate change are therefore required. In particular, appropriate policy measures are needed to expedite the decarbonisation of the global energy system. The use of the atmosphere as a disposal space for emissions must no longer be cost-free, and renewable energies must be promoted through appropriate technology policies. However, the emerging economies in particular are continuing to base the expansion of their energy systems on fossil fuels in pursuit of economic growth. Over the long term, the limiting factor for the global energy supply is not that fossil fuels will become scarce, but that the atmosphere's ability to absorb additional greenhouse gases is finite. The atmosphere is a global public good which is currently being used as a waste disposal site for emissions. If humankind is to have any chance of mitigating climate change, however, we must accept that the atmosphere's absorption capacities will be exhausted within a few decades, when the atmosphere will be "full". This presents the climate negotiations with major political challenges, relating in particular to the need for redistribution of rents from fossil resources. In several regions of the world, however, initial steps towards an energy policy turnaround can already be discerned.

**Figure 1: Rise in global CO<sub>2</sub> emissions despite decreasing energy intensity in the world economy**

Population and economic growth as drivers of global CO<sub>2</sub> emissions



Source: IEA 2011a, c

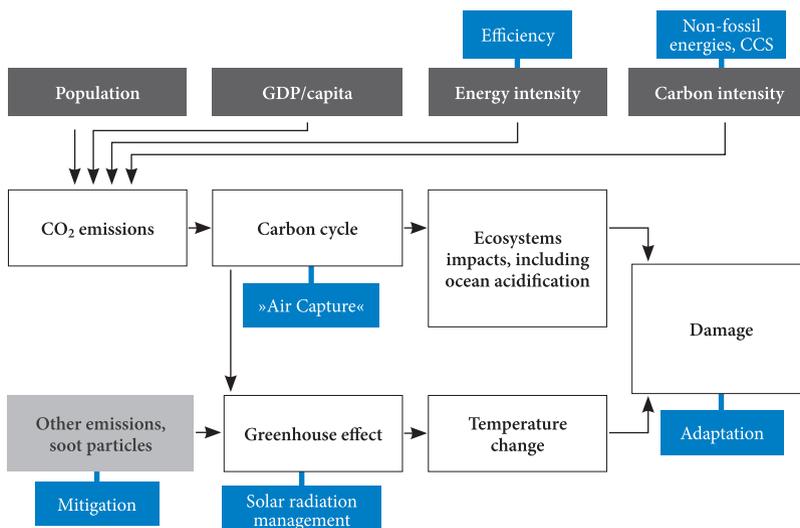
## Rising CO<sub>2</sub> emissions: the driving factors

CO<sub>2</sub> emissions from the global energy system have been steadily increasing since the start of the Industrial Revolution in the 19th century [see Figure 1]. Four driving factors can be identified in this context [see Figure 2]. These are: world population growth, the increase in per capita GDP, the energy intensity of the global economy, and the carbon intensity of the global energy system. Energy intensity and carbon intensity have decreased over recent decades, but these improvements are more than cancelled out by population and economic growth [see Figure 1]. What's more, carbon intensity has risen again slightly in recent years as a result of the massive increase in the use of coal, particularly in China, where annual CO<sub>2</sub> emissions doubled to 7 gigatonnes (Gt) between 2002 and 2008.

These four drivers also serve to identify the main options for reducing emissions in the energy system. The option of restricting

global population growth by means of targeted policy measures raises all manner of ethical issues. The world population is projected to stabilise anyway by the mid 21st century (UN DESA 2009). Limiting or reducing national income is also almost impossible to justify on ethical grounds, in view of the developing countries' legitimate growth aspirations and especially their desire to improve their energy supply. The main options available for reducing greenhouse gas emissions from the energy system are therefore to improve energy and carbon intensity. Energy intensity can be reduced through the use of more efficient technologies and a shift in consumption patterns away from energy-intensive activities. Carbon intensity can be lowered by replacing fossil fuels with renewables or by deploying carbon capture and storage (CCS) technology [see Box] or nuclear power, for example. So it is entirely conceivable for a growing world population to steadily reduce its greenhouse gas emissions while improving its living standards and consuming more energy.

**Figure 2: Drivers (grey) and options (blue) for solving the climate problem**



Source: Edenhofer/Seyboth 2013

Besides avoiding emissions from the global energy system, various other strategies can be deployed in order to avoid dangerous climate change [see Figure 2]. Two processes which are often described as "geoengineering" are currently under discussion. The first is "air capture", a process by which CO<sub>2</sub> is taken directly out of the atmosphere after it has already been emitted. However, studies show that the costs of these processes are likely to be far higher than alternative emissions avoidance options (House et al. 2011). One exception which could potentially be of interest is the use of biomass for energy generation in combination with carbon capture and storage (CCS).

The second geoengineering process aims to counteract the greenhouse effect

directly by means of solar radiation management, e.g. through albedo enhancement by stratospheric sulphur injections, in such a way as to cause artificial cooling of the Earth's atmosphere (Crutzen 2006). These processes currently still fall within the realm of science fiction, firstly because they are unproven and secondly, because they are beset with risks and uncertainty: for example, they could cause unforeseen regional temperature fluctuations, resulting in changes to regional crop yields (The Royal Society 2009). Furthermore, solar radiation management cannot prevent the acidification of the oceans which results from increasing levels of CO<sub>2</sub> and is the cause of mass coral die-off, for example (WBGU 2006).

### CCS technology: the pros and cons

Carbon capture and storage (CCS) is the term used to describe the capture and compression of carbon dioxide (CO<sub>2</sub>) and its storage in geological formations. The process is particularly effective in the context of electricity generation, but can also be deployed in the manufacture of synthetic transport fuels, e.g. from coal or biomass. The main risk associated with CCS is leakage of carbon dioxide from underground storage facilities, such as aquifers containing brine. Localised risks also arise for human communities if leaking CO<sub>2</sub> accumulates to the point where it reaches toxic atmospheric levels. There is also a risk of groundwater contamination from leakage of aquifers containing heavy metals. In addition, there is a concern that promoting CCS could put the brakes on renewables expansion. From a global perspective, any CO<sub>2</sub> leakage would conflict with the purpose of CCS, namely to reduce CO<sub>2</sub> concentrations in the atmosphere.

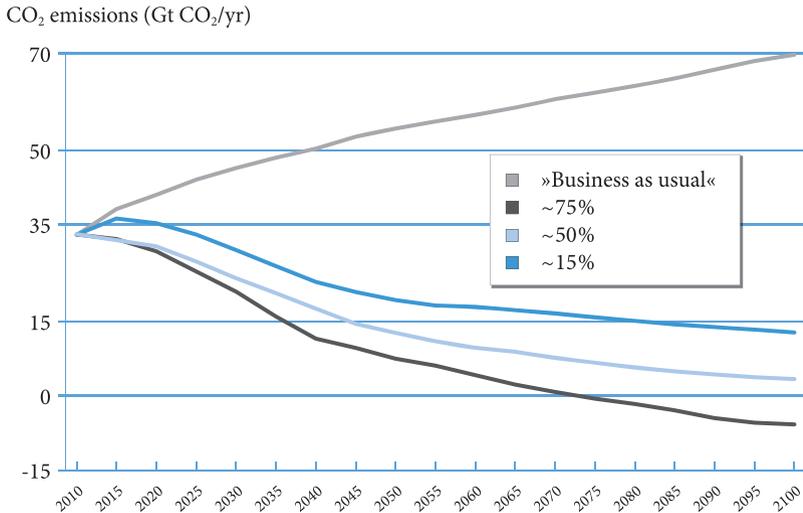
In view of these risks, why should CCS be pursued at all? With the massive expansion of coal-fired power generation in China and other countries and in light of the major challenge posed by stringent climate protection targets, an argument can be made in favour of at least trialling CCS to determine whether the risks are manageable. According to our present knowledge, achieving ambitious mitigation targets is likely to generate high economic costs [see Figure 9, right] and will therefore be very difficult for developing countries in particular to accept. In other words, without CCS, ambitious mitigation may well be impossible to achieve politically. Affluent high-tech countries such as Germany should therefore at least trial this technology in pilot projects. Of particular interest for ambitious climate protection is the combination of biomass use and CCS, as this could generate "negative emissions" through the net removal of CO<sub>2</sub> from the atmosphere.

In view of the current political difficulties besetting the climate negotiations, there is therefore a growing argument in favour of shifting the focus towards strategies for adaptation to seemingly unavoidable climate change (see, for example, Feld et al. 2011). Adaptation is undoubtedly an important option for dealing with unavoidable climate change. However, if this is to become the central pillar of a global climate protection strategy, it must be demonstrated that adaptation – also to extreme events – can be achieved at morally defensible costs. Experiences of coping with hurricanes and floods over recent years in the USA (Katrina), Australia, Pakistan and Thailand highlight the difficulties and challenges posed by this approach.

The avoidance of greenhouse gas emissions, then, will continue to be a central pillar of climate policy, and must include reducing emissions of greenhouse gases such as methane and nitrogen, e.g. from agriculture, as well as emissions of soot particles from the combustion of fossil fuels and biomass, for soot particles absorb solar energy and have a warming effect on the atmosphere. Furthermore, emissions from the destruction of the rainforests, which currently account for around 20% of annual global GHG emissions, must be avoided by protecting these forests. Nonetheless, carbon emissions from the global energy system are the main source of anthropogenic GHG emissions, accounting for a full 60% (Barker et al. 2007, p. 28). This article will therefore focus on the role of global energy system decarbonisation.

## Scenarios for the development of the global energy system

The various scenarios projecting future trends in energy system development conclude that without additional climate policy measures, global energy consumption based on fossil fuels, and hence global emissions, will continue to rise. In order to reach the internationally agreed target of stabilising global mean temperature increase at no more than 2°C relative to pre-industrial levels, a reversal of the global emissions growth trend must be achieved in the coming years, with substantial emissions reductions in the decades thereafter. In addition to the baseline ("business as usual") scenario, various reduction pathways are conceivable which would achieve a 2°C target with varying degrees of probability [see Figure 3]. These probabilities depend *inter alia* on other greenhouse gas emissions trends and on the technological options available in future to remove emitted CO<sub>2</sub> from the atmosphere – e.g. the use of bio-energy in combination with CCS (Edenhofer et al. 2010a; Meinshausen et al. 2009). Due to historical emissions, reaching the 2°C target with 100% certainty is almost impossible or can only be achieved at very high cost. Even the reduction pathway which reaches the 2°C target with a probability of 75% [see Figure 3] is extremely ambitious if we consider that from 2075, this will require "global negative emissions" (achieved, for example, through the use of biomass in combination with CCS). It seems certain, at any rate, that the energy policies currently being implemented will not be enough to achieve the 2°C target with significant probability (Climate Action Tracker 2011). Additional measures will therefore be required.

**Figure 3: Ambitious climate policy - a challenge**

Global emissions projections in a baseline (»business as usual«) energy policy scenario compared with three reduction pathways which would reach the 2°C target with varying degrees of probability (75%, 50% or 15%). The difference between the baseline scenario and the reduction pathways is the »emissions reduction gap«.

Source: Edenhofer et al. 2010a, p. 23

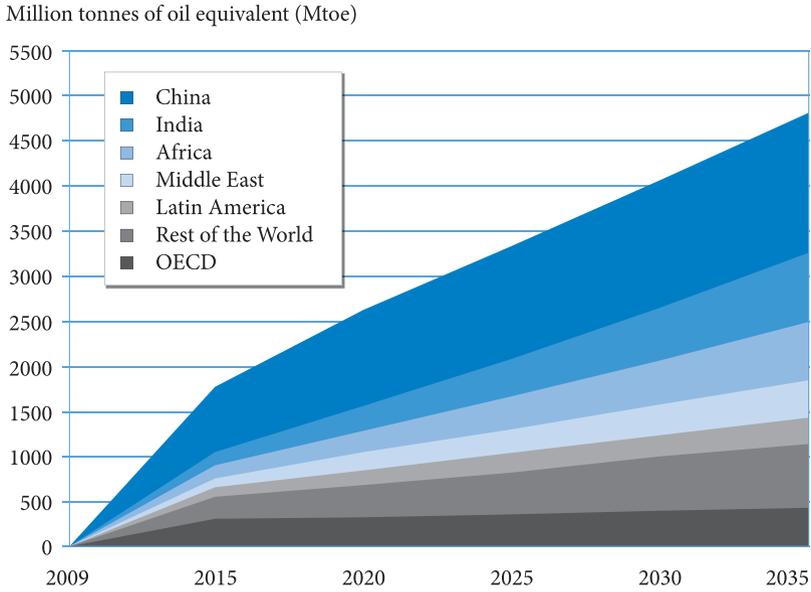
The main reason for the anticipated increase in CO<sub>2</sub> emissions is the energy demand in the emerging economies, which is still increasing [see Figure 4]. The International Energy Agency (IEA) projects that global energy demand will increase by 30% from 2010 to 2035 (IEA 2011b) with China and India accounting for 50% of the growth and their energy demand being met primarily from fossil sources.

China and India therefore have a key role to play in global climate protection [see Figure 5]. Taken together, these two countries are home to more than one-third of the

world's population. An increase in these countries' per capita emissions to the level of the US or Germany would put the 2°C target far out of reach and result in global warming of several degrees Celsius. As there is no compelling reason why Germany and other wealthy industrial nations should have a right to produce more emissions per capita than other countries, it is clear that much of the responsibility for seeking a global energy and economic system which is both sustainable and universally viable lies with the affluent countries.

**Figure 4: Strong increase in energy demand in China and India**

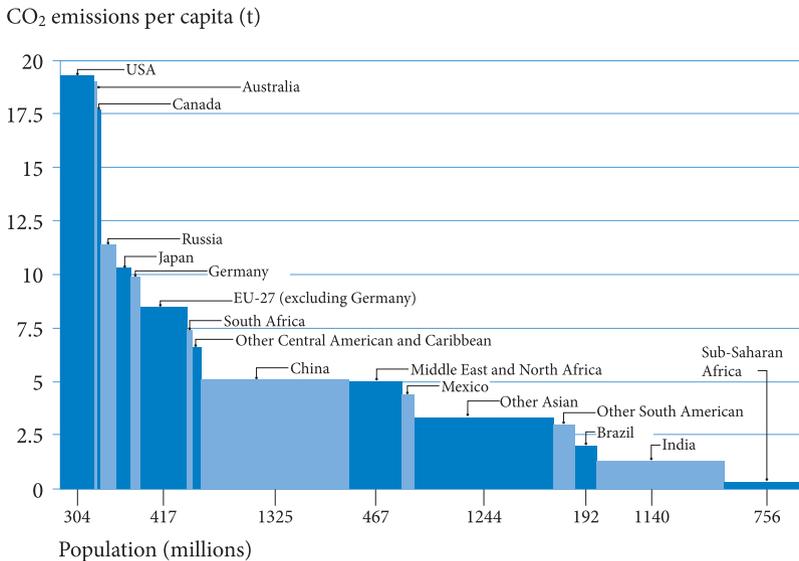
**Growth in primary energy demand 2010-2035 by region**



Source: IEA 2011b, p. 3

**Figure 5: Per capita CO<sub>2</sub> emissions particularly high in the industrialised countries**

**Emissions and population in various countries and regions, 2007**



The area under the curve shows the total amount of global CO<sub>2</sub> emissions from energy consumption.

Source: Based on World Resources Institute 2012

## The atmosphere: a limiting factor

The atmosphere is a global common-pool resource. At present, it can be used almost everywhere in the world for free as a waste disposal site for greenhouse gas emissions. However, its overuse is causing dangerous and potentially catastrophic climate change. With warming of more than 2°C above pre-industrial levels, irreversible "tipping elements" could be activated within the Earth system once (uncertain) temperature threshold values are reached (Messner/Rahmstorf 2010). These tipping elements include the melting of the Greenland ice sheet and the West Antarctic ice sheet, each of which over the long term could lead to global sea levels rising by several metres, the collapse of the North Atlantic thermohaline circulation (THC) and a resulting drop in average temperatures in Europe, and dieback of the Amazon rainforest (Lenton et al. 2008). Activation of any of these tipping points could inflict very serious damage or even destroy the habitat in which humankind has been living since the Holocene. However, the precise threshold at which these tipping elements are activated is uncertain.

At the climate change conferences in Copenhagen and Cancún, the international community agreed to keep global warming within 2°C above pre-industrial levels. For this target to be achieved with significant probability, the amount of CO<sub>2</sub> deposited in the atmosphere to 2050 must not exceed about 750-1100 billion tonnes (Edenhofer et al. 2010b, p. 98). In 2010, annual CO<sub>2</sub> emissions from the global energy system reached an all-time high of 33 billion tonnes (PBL 2011, p. 1). Simple arithmetic shows that the atmosphere – which we use as our waste disposal site for GHG emissions – will be

"full" within a matter of decades. This means that the global economy must be completely decarbonised within this same timeframe. It is by no means certain at present whether this will be achieved.

It seems that the world's countries currently take the view that the cost risks associated with drastic emissions reductions are so high that despite paying lip service to the concept, they have no real intention of decarbonising their energy systems. The choice of a 2°C target therefore does not seem to reflect the findings of countries' global cost-risk analysis that weighs up dangerous climate change on the one hand and drastic emissions reductions on the other. However, it could also be argued that countries currently underestimate the risk of catastrophic climate change. Harvard economist Martin L. Weitzman (2009) has shown that conventional methods applied in risk and decision theory fall short of the mark when it comes to calculating the costs of climate change impacts which could destroy planet Earth as we know it, assuming that this destruction must be avoided at all costs. If the precautionary principle is applied, the additional damage caused by a tonne of CO<sub>2</sub> can no longer be weighed up against the additional costs of avoiding one tonne of CO<sub>2</sub>. From a precautionary perspective, climate change should at least be limited to such an extent that the risk of irreversible and potentially infinite damage is minimised.

The costs of protecting the climate are then to be seen as insurance against catastrophic climate change. Even if it should turn out in future that dangerous climate change is less probable than feared and that the costs of climate protection are higher than expected, the rational approach, based on this line of argument and with today's best available knowledge, is to protect humankind from possible catastrophe.

The 2°C target can then be regarded as the option which sensibly balances the risk of climate change on the one hand and the economic costs and risks of protecting the climate on the other (Edenhofer et al. 2010b). It can also be regarded as a focal point for efforts to reconcile the expectations of the parties involved in the climate negotiations (Jaeger/Jaeger 2010).

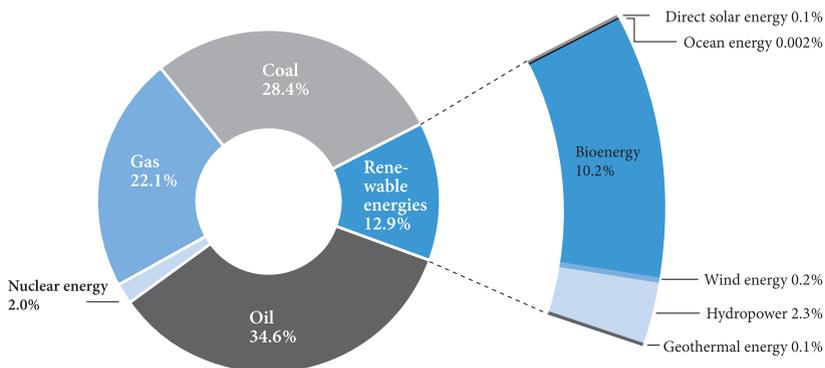
### Options and costs of emissions reductions in the energy system

The global energy system is dominated by fossil fuels [see Figure 6]. Nuclear energy meets just 2% and renewables meet only around 13% of the world's total primary energy demand. However, around half of renewable energy – approximately 6% of global primary energy demand – is supplied by traditional biomass. Only 0.4% of global energy demand is met by modern wind, solar and geothermal systems. As these figures show, converting the global energy system to renew-

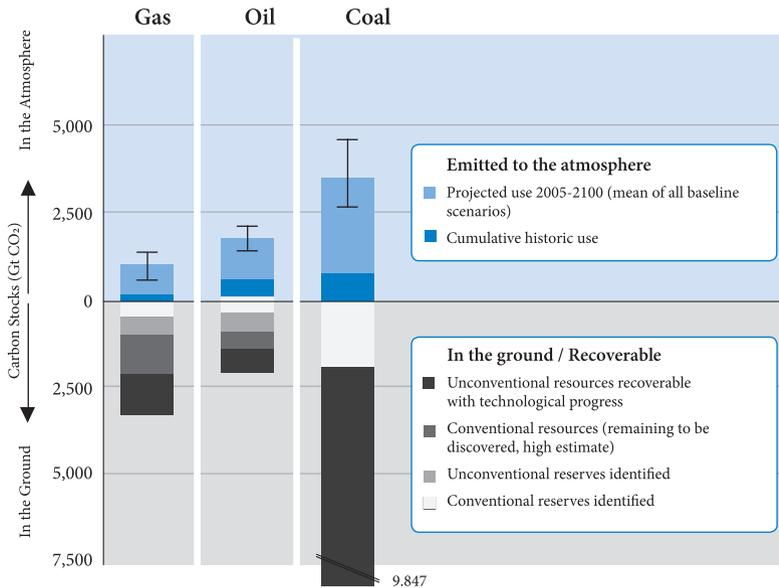
ables in order to avoid CO<sub>2</sub> emissions is a massive challenge.

Two arguments are often advanced to explain how it is possible to protect the climate successfully by relying on market mechanisms alone even without climate policy. The first argument emphasises the scarcity of fossil fuels. In a scenario in which energy consumption is rising and fossil fuels are finite resources, the price of fossil energy generation would increase so sharply that efficiency measures and renewable energies would soon have an increased presence in the market. However, this argument ignores the fact that around 15,000 gigatonnes (Gt) of carbon dioxide as fossil fuels, mainly coal, are still available underground - far more than can be stored in the atmosphere if we want to avoid dangerous climate change [see Figure 7]. Coal is relatively cheap and can be processed relatively easily and cheaply into other fuels such as petrol (gasoline) and diesel. Assuming that the remaining atmospheric CO<sub>2</sub> budget is in the order of 750-1100 Gt until 2050, it quickly becomes apparent that the atmosphere is the limiting factor, not the fossil resources underground.

**Figure 6: Fossil resources meet 85% of world energy demand**  
**Shares of energy sources in total global primary energy supply in 2008**



Source: IPCC 2011, p. 10

**Figure 7: Carbon stocks in the ground are not a limiting factor**

Estimates of carbon stocks and estimated future emissions from the mean of the baseline scenarios of the models considered in the analysis in the IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation. The light blue stacked bar shows the mean and the black error bars show the standard deviation of the baseline projections. In total, in the mean of the baseline scenarios, around 5000 Gt CO<sub>2</sub> will be emitted to 2100. By comparison, with ambitious climate protection, the remaining atmospheric emissions budget is in the order of 750-1100 Gt.

Source: Moomaw et al. 2011, p. 172

The second argument is based on the cost reductions that can be achieved for renewable energies as a result of learning effects; according to this hypothesis, over time, these would push the price of renewable energies below the price of fossil technologies even without additional policy measures. Indeed, some renewable energy technologies can already compete with the costs of fossil technologies (IPCC 2011). From today's perspective, however, it is very doubtful whether the cost reductions – including the costs of

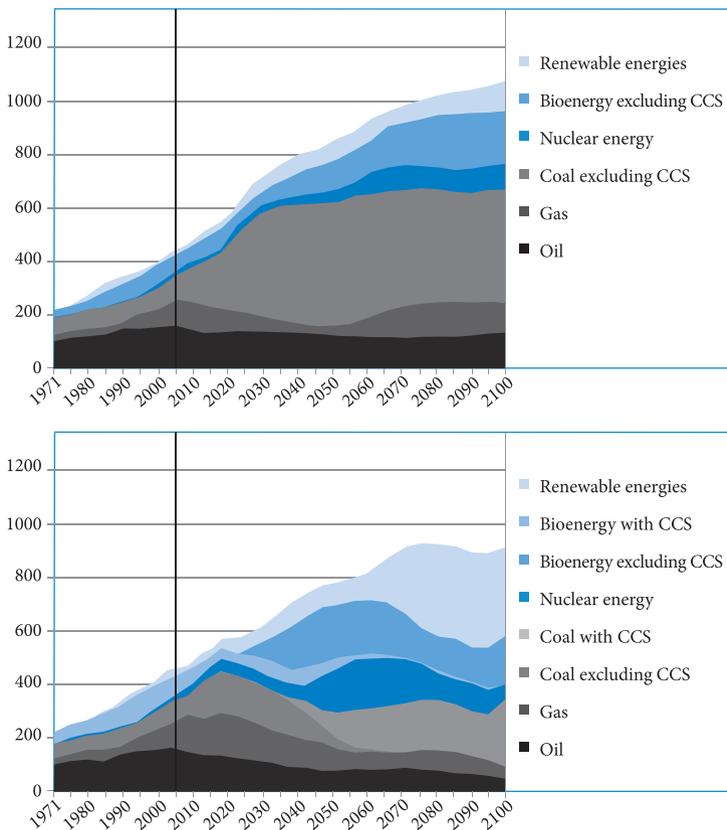
integrating large quantities of renewable electricity into the grid – are likely to be achieved as quickly as is necessary to render ambitious climate policy obsolete.

The price of fossil fuels will undoubtedly increase as time goes on, and the cost of renewables will fall. Almost every scenario modelled, however, shows that without additional policy measures, this will not happen fast enough for ambitious climate targets to be achieved.

In simulations for a reference (i.e. "business as usual") scenario developed by the Potsdam Institute for Climate Impact Research (PIK) using the dynamic energy-economy-environment model REMIND (Leimbach et al. 2010), the massive expansion of coal – being the cheapest option, if the costs of climate damage are not internalised – would result in around 5000 Gt CO<sub>2</sub> being deposited in the

atmosphere by 2100, putting the 2°C target far out of reach [see Figure 8]. Although the share of renewable energies in the global energy mix would also increase over time in the "business as usual" scenario for the reasons stated – rising price of fossil fuels, reduced cost of renewables – the major share of global consumption would, in this scenario, still be met from coal.

**Figure 8: Without climate policy, fossil energies will continue to predominate**  
**Global primary energy consumption in exajoules (EJ)**



Global primary energy consumption, 1970-2005, and scenarios to 2100; top: baseline ("business as usual") scenario without climate policy; bottom: scenario with a 75% probability of reaching the 2°C target.

Source: Leimbach et al. 2010, p. 121

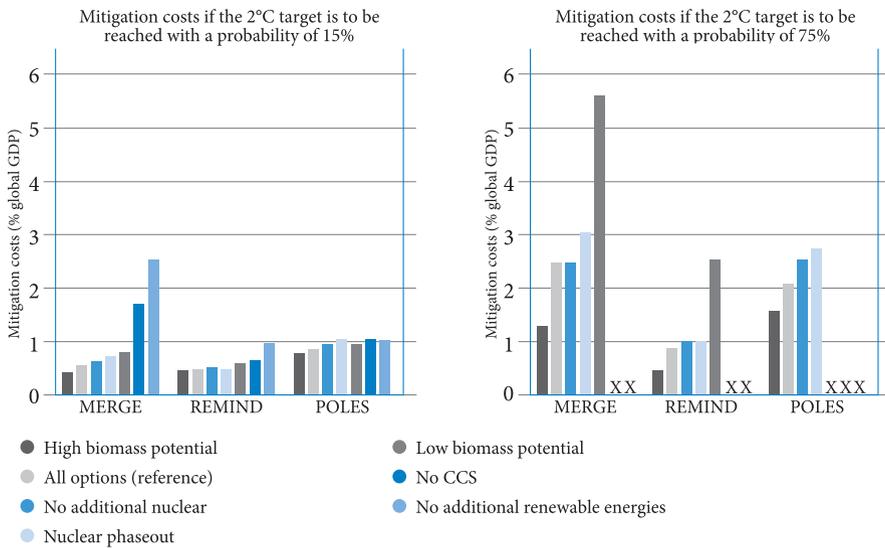
By comparison, global warming could be limited to 2°C with a probability of 75% if the atmosphere's absorption capacities are limited to 820 Gt CO<sub>2</sub> net to 2100 through the adoption of additional policy measures [the relevant cost-optimised development of the global energy system is shown in the right-hand graph in Figure 8; see also the emission pathway shown in Figure 3]. In addition to a slight reduction in total world energy demand, this scenario focuses primarily on the decarbonisation of the energy system, with substantial expansion of renewable energies (wind, solar, hydropower). In particular, bioenergy in combination with CCS is used in order to generate "negative emissions": this means that crops cultivated as biomass feedstocks remove carbon from the atmosphere, with the CO<sub>2</sub> emitted during power generation then being pressurised and stored underground. By the end of the century, coal would only be used in combination with CCS. By then, the only CO<sub>2</sub> emissions into the atmosphere would come from the use of oil and gas. Nuclear energy is also expanded, unless additional restrictions are imposed on this form of energy [see Box].

Besides the REMIND model, researchers at the Paul Scherrer Institute (PSI) and the University of Grenoble have developed the economy-climate models MERGE and POLES. MERGE is similar to REMIND in that it is a multi-region model simulating growth scenarios for the global economy and its energy system to 2100 and can thus calculate the macroeconomic costs of protecting the climate. The POLES model is a bottom-up global energy system model with a high resolution of different technologies which calculates the increased energy system costs of mitigation (see Edenhofer et al. 2010a). The models show that the costs of protecting the climate depend substantially on the availabil-

ity of technologies and the level of ambition in climate protection goals [see Figure 9]. To reach the 2°C target with a probability of 15% (CO<sub>2</sub> budget of 2000 Gt to 2100) [see Figure 3], assuming that all climate technologies are available, the costs of mitigation will amount to 0.4-1% of global GDP throughout the 21<sup>st</sup> century [see Figure 9, left]. If renewable energies are not available, the costs of protecting the climate, according to the MERGE model, greatly increase. The picture changes, however, if a very ambitious budget of 820 Gt CO<sub>2</sub> is hypothesised to reach the 2°C target with a probability of 75% [see Figure 9, right]. The costs of protecting the climate increase in all scenarios. However, if renewable energies or CCS are not available, none of the models can achieve the target. The differences in costs between the various models reflect the different assumptions about the flexibility of energy systems, such as the future cost trajectories associated with the various technologies. The costs are particularly responsive to the availability of biomass: if the use of biomass in the energy system is only possible to a limited extent, the costs of protecting the climate increase. Various factors may limit the use of biomass in the energy system, e.g. if priority is given, in the allocation of land, to food production over biomass feedstock cultivation in order to avoid food price increases. More intensive agriculture can also exacerbate regional water shortages. And finally, the expansion of agriculture poses a threat to the rainforests as valuable biodiversity banks and carbon sinks. There is therefore a potential conflict between affordable climate protection, on the one hand, and food security / conservation of ecosystems and forests, on the other. Technological advancements which increase productivity while promoting a shift towards sustainable agriculture, combined with effec-

tive global protection of the rainforests, will have a key role to play in defusing this conflict in future.

**Figure 9: Ambitious climate protection is expensive without renewable energies, CCS or biomass**



Cumulative mitigation costs 2005-2100 (discount rate 3%) with different availabilities of technologies in two mitigation scenarios: if the 2°C target is to be reached with a probability of 15% (left) or 75% (right).

Source: Edenhofer et al. 2010a, p. 37

### Nuclear energy

The world's stock of 443 nuclear power plants provides a relatively modest 2% of the world's energy and 14% of its electricity. The risks associated with this technology are well-known: they include the challenges of final storage of nuclear waste, the threat of nuclear proliferation, the costs of decommissioning ageing power plants, and the possibility of catastrophic accidents. As an illustration, with electricity consumption expected to double by 2030, around 900 reactors would have to be installed simply to keep the share of nuclear energy constant to 2030. Based on the standard risk assessments for modern nuclear power plants, this would mean that a serious nuclear incident would occur somewhere in the world roughly every 12 years on average. The question is whether there is any alternative to this risk, based on cost factors. Model calculations [see Figure 9] show that phasing out nuclear energy, even with ambitious climate targets, is possibly at hardly any additional costs if alternative technologies such as renewable energies and possibly CCS are available.

## Political economy challenges

As it is by no means certain that global warming can be limited to 2°C through market mechanisms alone, what are the options for fair and efficient policy measures? Greenhouse gas emissions pricing is essential in this context in order to signal the costs of using the atmospheric sink to consumers and producers alike and provide incentives to develop alternative products and processes. There are also sound arguments in favour of using policy instruments as a flanking measure to promote renewable energies. These technologies exhibit cost-reducing learning effects (IPCC 2011), which can be adopted swiftly by all market players once they have realized by pioneers. However, this also means that every company has an incentive to under-invest in learning and to copy the learning effects by the pioneering companies instead. The advances achieved through learning are therefore a public good, and experience shows that they are unlikely to be optimally supplied by markets. Policies such as feed-in-tariffs and renewable energy quotas can address this market failure, which exists in addition to the problem that the atmosphere can be used for free (Kalkuhl et al. 2012).

Emissions pricing continues to be essential, however, not least in order to avoid a "rebound effect". This occurs when the cost of energy decreases as a result of the promotion of renewables or efficiency measures, resulting in increased energy use overall. A tax or an emission trading scheme – such as the scheme launched for companies in Europe in 2005, and the international emissions trading scheme for Kyoto Protocol signatories introduced during the 2008-2012 commitment period – is an efficient way of putting a price on carbon emissions. The allocation of

scarce and hence valuable emission allowances (i.e. the rights to use the atmosphere) is a controversial political issue, however (Edenhofer et al. 2011). Firstly, it is essential to develop a fair and politically enforceable formula for the allocation of these allowances, e.g. between China, the US, India, Africa, the EU and other countries. Secondly, a decision must be taken on the distribution of these usage rights over future generations. The allocation of emission rights on an equal per capita basis can be a natural starting point for this discussion, in that it gives every person the same right to use the atmosphere. In an international emissions trading system, however, this could result in substantial climate finance transfers between regions – especially from industrialized to developing countries. In order to avoid detrimental impacts from large-scale climate finance transfers to developing countries – i.e. a "climate finance curse", analogous to the "resource curse" familiar from development economics, which affects some economies with an abundance of natural resources and heavy reliance on exports of these resources – appropriate institutional mechanisms to ensure sound climate finance management should be established (Jakob et al. 2012).

Climate protection has another major economic implication: if climate policy imposes restrictions on the use of fossil reserves so that they remain in the ground and are not used, in de facto terms, this means an expropriation of the owners of natural resources (Edenhofer et al. 2010b, 2011). Unsurprisingly, there is considerable resistance to ambitious climate policy from this quarter; the stakeholders concerned have long disputed and campaigned against the scientific evidence for the greenhouse effect. A similar conflict of interests exists in relation to business models whose profitability is based

on the use of cheap fossil resources. A political and economic analysis of instruments for climate protection shows that these groups are able to obstruct ambitious climate policy quite effectively because they are strongly impacted by the costs of climate protection and are also well-organised. By contrast, the benefits of controlling greenhouse gases are diffuse and generally accrue over many generations, which are not represented in the climate negotiations (Victor 2011). Interest groups whose business models are based on renewable energies or energy efficiency and could thus form a counterweight were not particularly well-organised politically in most regions of the world over recent years, although the balance now appears to be shifting, for example in Germany.

In addition to these conflicts of interest, there is the international "free-rider" problem. Although it is rational for all countries to agree to comply with a limited global budget for the use of the atmosphere and thus avoid dangerous climate change, every country is better off if it continues to emit CO<sub>2</sub> without restraint and only the other countries mitigate, which would not place a substantial burden on the global climate. Indeed, there is an even stronger incentive to behave as a free-rider because a global restriction on demand for fossil resources would drive down the price of these resources, making their use even more economically attractive. However, if all countries were to adopt this approach and none of them abated, compliance with the budget would be impossible to achieve.

In light of all these challenges, is there any real hope of a solution to the climate problem? The latest UN climate conferences in Copenhagen, Cancún and Durban from 2009 to 2011 showed that despite the international community's stated intention to limit global warming to 2°C, there is a gap between

the actions announced by governments and what is needed to keep global temperature rise to 2°C (Climate Action Tracker 2011). At the negotiations, efforts to reach agreement on regional emissions budgets to follow on from the Kyoto Protocol failed to produce results.

Elinor Ostrom, Nobel Laureate in Economics, showed that in specific circumstances, local community institutional arrangements are effective and efficient in managing local public goods and common-pool resources without any involvement by central government (e.g. Ostrom et al. 1994). Does this apply at the global level as well, which also lacks a central government? That is still an open question. Nonetheless, there are various theoretical models and empirical indicators which suggest that global commons can also be managed initially through decentralised approaches - even assuming that all stakeholders will behave as "rational egoists". For example, countries could agree financial transfers to compensate for the costs of mitigation, e.g. under linked regional emissions trading schemes or via the Green Climate Fund, whose purpose is to finance climate actions in poorer countries and which is supported *inter alia* by Germany (High-Level Advisory Group 2010). "Issue linking", which means linking cooperation on climate protection to something else, e.g. trade sanctions or research cooperation, can also help to achieve stable coalitions in support of international climate agreements (Lessmann et al. 2009; Lessmann/Edenhofer 2011). If the climate negotiations are thought of as a multi-player repeated game in which countries observe each other's actions and can adapt their own behaviour to others' past behaviour, there are also much better prospects of cooperation than when basic standard economic analyses are applied (Heitzig et al. 2011). Furthermore, reducing emissions can have

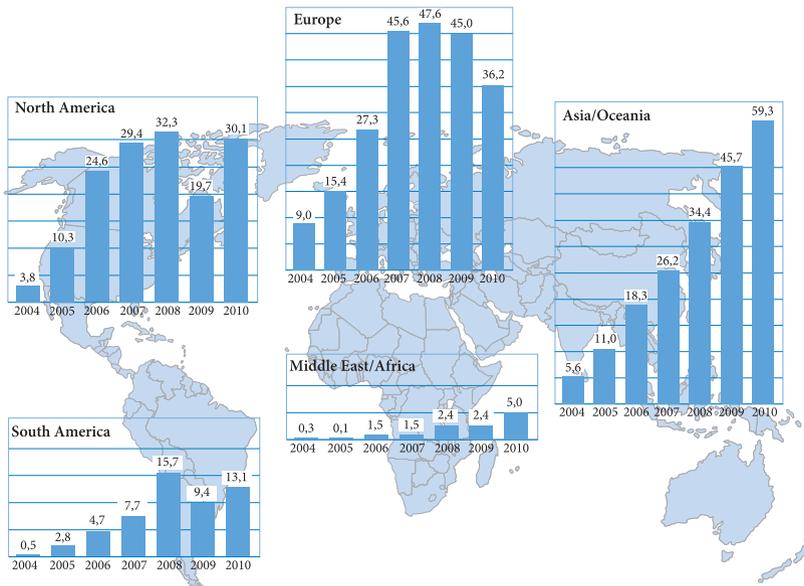
other positive effects, such as lower levels of air pollution (IPCC 2011), or can encourage the development of renewable energy industries, opening up new branches of the economy which will flourish in a world with ambitious climate policies. This argument underlies much of Germany's support for renewable energies over recent years, which has done much to drive down the costs of these energies worldwide.

### Regional pioneers of a polycentric governance framework

Against this background, some interesting regional developments have occurred over recent years even without an ambitious global climate agreement. Investment in renew-

able energies has substantially increased in some regions, for example. Although the financial crisis in Europe and the US has undoubtedly left its mark, there has recently been a resurgence of investment in the US, where a number of subsidy programmes exist, also at regional level (REN21 2011) [see Figure 10]. If smaller photovoltaic projects of less than 1 MW (not shown in Figure 10) are included, an additional US\$ 34 billion was invested in decentralised photovoltaic systems in 2010, most of this taking place in Germany under the Renewable Energy Sources Act (*Erneuerbare-Energien-Gesetz-EEG*). Overall, annual global investment in renewable energies has increased dramatically, from US\$ 33 billion in 2004 to US\$ 211 billion in 2010 (UNEP et al. 2011, p.12).

**Figure 10: Uninterrupted growth in investment in renewable energies in Asia**  
**Financial new investment in renewable energy, 2004-2011**



Only projects >1 MW are considered; if small-scale projects are also included, an additional US\$ 34 billion is added to Europe in 2010 due to investment in Germany alone.

Source: UNEP et al. 2011, p. 19

With Europe having taken the lead, Australia, South Korea, California, the Canadian province of Québec and some larger Chinese provinces are now also starting to introduce emissions trading systems, thus putting a price on CO<sub>2</sub> emissions. Starting in July 2012, the Australian scheme is initially operating as a fixed price scheme, with a tonne of CO<sub>2</sub> costing €18 (as compared with €7 – the price of a tonne of CO<sub>2</sub> in the EU Emissions Trading System (EU ETS) in January 2012). The idea of introducing a US-wide emissions trading scheme was dropped in 2009 in the face of resistance from the fossil fuel industry and energy-intensive sectors on the grounds that mitigation would be far too expensive; such a scheme is unlikely to be feasible here for many years due to the US's specific domestic policy parameters. In California, however – which is, after all, by itself the world's eighth largest economy – an emissions trading scheme is due to start in 2013. Indeed, this scheme will improve upon the EU ETS as it will include not only the electricity sector and industry but also transport and buildings.

These schemes are still arousing controversy within the regions concerned: the fossil energy industries in particular are attempting to block the introduction of CO<sub>2</sub> pricing or, at the very least, to ensure that they receive a generous allocation of the precious allowances at no cost to themselves. However, in accordance with economic theory and reflecting the experience gained with the EU system, the cost of these allowances – as with all taxes on products – will be passed on to the consumer anyway. The argument over whether these climate rents should be distributed free of charge to companies or auctioned in order to boost public budgets is essentially a distributional conflict between companies and the public.

Discussions about possibly linking these fledgling emissions trading schemes with each other and with the EU system have already begun. The benefits of such linkage are the reduced costs of protecting the climate, resulting from the efficient distribution of mitigation measures across the various regions, and the possibility of compensating poorer regions for the costs of taking climate action, with compensation being paid from the revenues generated from the international sale of emissions allowances.

These first steps in a polycentric approach, with measures at the national, regional and local level, may well provide fresh impetus for the negotiations at the international level by reducing mitigation costs. However, the reverse also applies: climate policy at the national, regional and local level will only be successful if a global agreement is ultimately put in place. In the final analysis, climate policy needs a global governance framework which puts a price on the use of the atmosphere. Otherwise, reduced emissions in one region will invariably lead to increased emissions elsewhere. However, it would spell the end for climate policy if models of good practice were put on hold until a global agreement is reached.

Climate policy must find solutions to numerous cooperation and distributional problems. However, even assuming that stakeholders behave as "rational egoists", there are signs that these problems can be overcome. An energy supply that is sustainable for the long term can only be achieved if countries are willing to cooperate and take into account not only the interests of present generations but also the interests of the unborn, who cannot yet defend their interests in the markets or voice their concerns through the ballot box.

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# Food Security - A Global Challenge

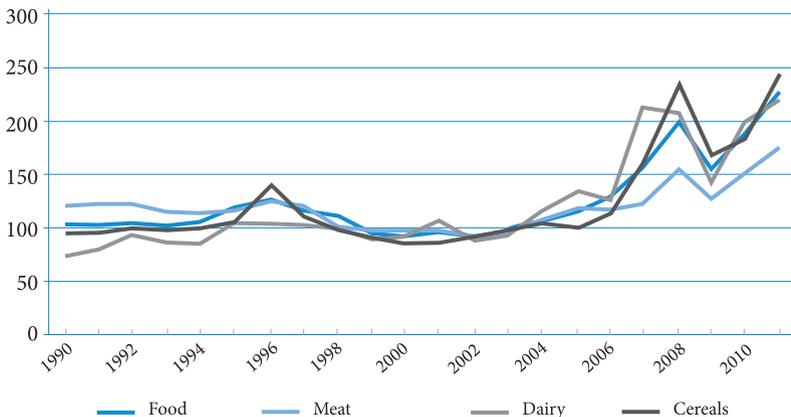
Michael Windfuhr

In 2011, farm prices reached record highs; there was also a sharp increase in the number of hungry people in the world. The price hikes were accompanied by a surge in interest in agriculture and land as economic assets. It is often assumed that hunger is primarily caused by global food shortages, but this is a misconception: even during decades of surplus production, efforts to substantially reduce hunger were unsuccessful. The primary factor driving hunger is the very difficult income situation of marginalised groups, especially in rural regions, with multiple forms of discrimination and very poor governance at the national level being the main reasons why the problem of hunger persists.

If hunger is to be reduced, more effective solutions to political challenges and human rights deficits must be sought. At the same time, there are many signs that the era of global surpluses may well be over. This will make it more difficult in future to develop effective policies for food security, especially as the non-food use of agricultural commodities will account for a growing share of global demand. Faced with this scenario, the international community established the *Committee on World Food Security (CFS)* in 2009 as a new governance structure for global food security. Its first few years of life have not been easy.

**Figure 1: Rising food prices, sharp fluctuations since 2006/2007**

FAO food price index, 2002-2004= 100



Source: <http://www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/>, 16.3.2012

## Resurgence of interest in rural development

Since the world food crisis in 2007/2008, there has been a resurgence of interest in agriculture and rural development. This followed decades of economic and political neglect and chronic under-investment in this sector. World market prices for agricultural products had languished at a very low level for decades, creating little incentive for investment. It was only when the soaring costs of basic staple foods caused hunger riots in 2008 that the issue moved back up the political agenda. The high agricultural subsidies in the EU and the United States were a key factor in this context during the last decades: these subsidies led to a massive expansion of production and a dramatic increase in output. Agricultural export subsidies were then used to dump the surpluses on the world markets, putting sustained and lasting pressure on global prices. The tariff reductions and market liberalisation in developing countries – introduced within the World Trade Organization (WTO) framework and under bilateral trade and investment agreements – meant that these export subsidies had a direct impact on farm prices in the countries of the Global South and on many smallholder families' revenue and incomes. Following sharp criticism from the development community, spending on these export subsidies has plummeted, from a total of Euro 10.2 billion in 1993 to Euro 164 million in 2011 (BMELV 2012).

Since the world food crisis, agricultural price trends have undergone a reversal: indeed, the prices of many products are now even higher than they were in 2007/2008. Since the financial crisis in 2008, a further factor has come into play: a large amount of

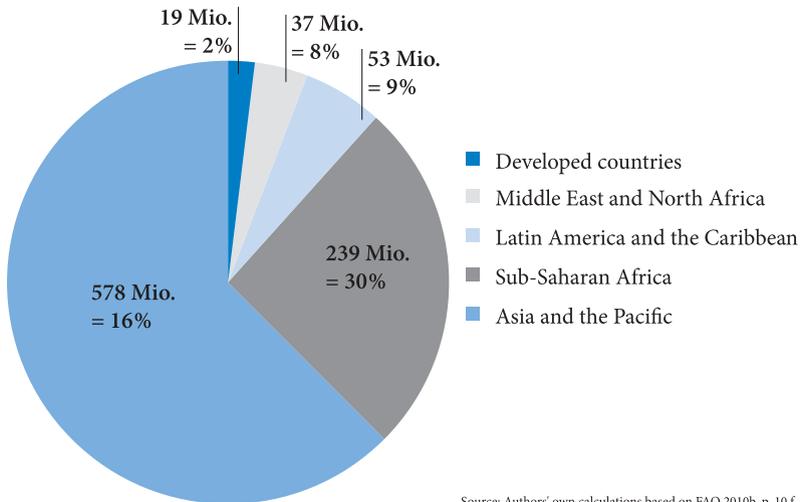
available capital is in circulation. With investors seeking secure investment options, there is a growing influx of capital into the farm sector. By the end of March 2011, capital investors had invested US\$ 200 billion in agricultural commodities, with additional investment of US\$ 5-10 billion per month sustaining this trend (Schumann 2011, p. 13). The tangible effects of this surge in investment are the current rush for land (*land grabbing*) and large-scale land acquisitions.

At the same time, the issue of food security has started to move up the political agenda. At the G8 Summit in Italy in 2009, new financial resources in excess of US\$ 20 billion were pledged to combat hunger (Windfuhr 2011). In autumn 2009, the Food and Agriculture Organization of the United Nations (FAO), at its World Summit on Food Security in Rome, discussed appropriate measures to deal with the world food crisis. The conferral of a new mandate for the FAO Committee on World Food Security (CFS) – originally established in 1974 – has created a new institution to coordinate the international response to world food problems (Windfuhr 2008). In the following sections, the food security challenge will be described with reference to six global trends.

### Trend 1: Number of hungry people at highest level for decades and still rising

A comparison of the number of undernourished people in each year of the last three World Food Summits – 1996, 2002 und 2009 – shows that the absolute figure has always exceeded 850 million people. It rose above one billion during the world food crisis in

**Figure 2: The region with most undernourished people is Asia and the Pacific**  
**Undernourishment in 2010, by region (millions) and as a percentage of the population**



Source: Authors' own calculations based on FAO 2010b, p. 10 f.

2007/2008 and then decreased to 925 million in 2009, but has climbed back above an estimated one billion since then (FAO 2011a). However, the FAO is not due to publish the latest official statistics until October 2012, as it is currently in the process of reviewing the methodology it uses for the measurement of hunger (FAO 2011b, p. 10).

The proportion of undernourished people in the world population decreased during the 1970s and 1980s, falling from around 25% in 1979/81 to 17% by 1996, before increasing once more to 19% during the world food crisis. So why are there so few positive developments to report in the fight against hunger, even though the Millennium Development Goals (MDG 1) aim to halve the proportion of the world's people who suffer from hunger, and enough food is being produced on a global scale? Indeed, in 2011, world cereal production reached a record output of 2 325 million tonnes, up 3.7% from the previous year (2010), while total cereal utilisation stood at only 2 309 million tonnes (FAO 2011a). In short, hunger exists even

though global production has consistently surpassed consumption, resulting in a surplus, for several decades.

If undernourishment is broken down by region, it is immediately apparent that the region with most undernourished people is Asia and the Pacific, followed by Africa, where the proportion of undernourished people remains highest [see Figure 2]. The figures for Asia clearly show that a very high proportion of undernourished people live in emerging countries (mainly India and China) – in other words, in countries which have increased economic capacities to address the problem of hunger.

According to the FAO definition "food security exists when all people, at all times, have access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 2012). Estimates of food security are generally expressed in terms of the ratio of population relative to food output. For an analysis of hunger, however, it is essential to start at the household level and to

determine whether or not a family has adequate access to food or to an income which allows adequate food to be purchased. Food security analysts emphasise, that other factors besides access to food play a part in determining whether people go hungry – such as a supply of safe drinking water in order to prevent diarrhoeal diseases, and adequate health care and social welfare.

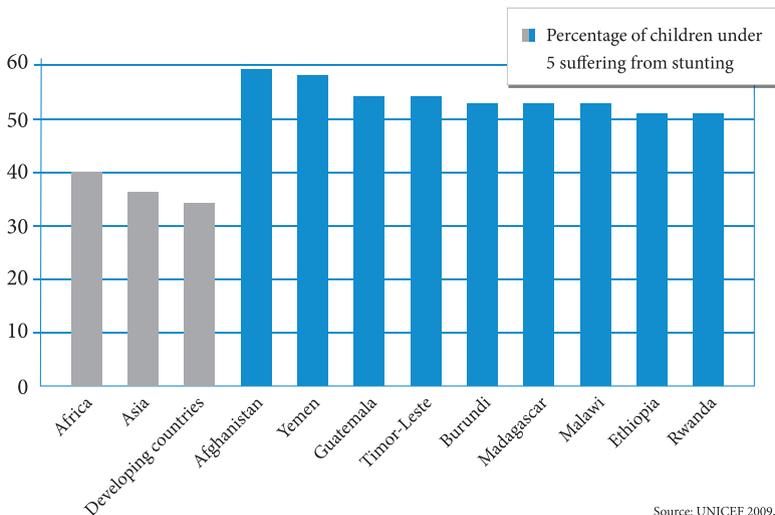
In other words, data about production volumes do not provide sufficient information to explain the causes of hunger. Rather, the availability of food – on both a regional and an individual basis – is the key determinant. Moreover, in disaster scenarios, people lack access to adequate food irrespective of income. It is clear that in such situations, the state has a key role to play in safeguarding the population's physical access to adequate food, in fulfilment of the right to food. According to the World Food Programme (WFP), averaged over several years, up to 10% of undernourished people lived in disaster regions (see WFP 2011), while the remaining 90% live in

families too poor to afford adequate food. As the following analysis makes clear, it is primarily the lack of support from the state, combined with marginalisation and discrimination against certain groups, which explains why so little progress has been made on reducing hunger.

The major significance of the chronic dimension of hunger is apparent from the data relating to the nutritional status of children. Around 13% of children under five years of age living in developing countries are acutely malnourished; in other words, they are in an acute crisis situation. A full 60% of them live in just 10 countries, including China, India and Indonesia (UNICEF 2009, p. 15). However, a much higher percentage of children are chronically malnourished: this affects 34% of children under the age of five in developing countries. In these countries, one child in every three under the age of five suffers from stunting (i.e. impaired physical development) caused by malnutrition [see Figure 3].

**Figure 3: One child in every three in developing countries suffers from stunting**

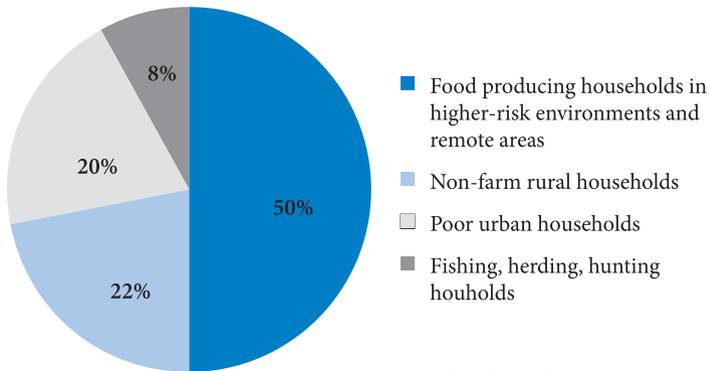
**Percentage of children under 5 years old who are moderately or severely stunted**



Source: UNICEF 2009, p. 16

## Figure 4: Most of the hungry are smallholder farming households

### A typology of hunger by household



Source: Based on Sanchez et al. 2005, author's own graphics

Many of these children will suffer lifelong effects from this early childhood malnutrition and will never be able to develop their full physical and intellectual potential. The chronic prevalence of childhood malnutrition is a manifestation of the structural problems – financial and food-related – affecting their families.

### Trend 2: Rural areas: years of national and international neglect

In 2004, the Millennium Project Task Force on Hunger conducted a study to determine which types of household are affected by hunger [see Figure 4]. It produced some astonishing results: hunger is still a predominantly rural phenomenon. Around 80% of the world's hungry people live in rural areas, and around half of the hungry are smallholder farming households. Although they grow food crops, they are unable to grow enough food to meet the family's requirements. Many are forced to sell their crop at market in order to buy supplementary food and other services.

These figures are confirmed by the latest Rural Poverty Report published by the International Fund for Agricultural Development (IFAD). It reveals that it is mainly smallholder farming families with few resources who form the nucleus of rural poverty, and points out that in addition to promoting agriculture, it is important to develop the non-farm economy in order to overcome rural poverty (IFAD 2011).

The marginalisation of the rural population has many different causes. The available land area for production is often too small; this is the case, for example in South Asia, where many families own less than half a hectare. Farms are often located at unfavourable sites: on steep slopes, or in regions prone to aridity or – as in Bangladesh – frequent flooding. Marginalisation can also mean that land tenure is not secure and that farming families – especially those headed by women – lack access to credit and therefore cannot purchase inputs such as seed. A lack of transport and infrastructure makes many families dependent on middlemen. Agricultural extension services are not available in many countries. Unpredictable weather patterns or increased pressure from imports – e.g.

subsidised EU surpluses in West Africa – also play a role, jeopardising production or the subsequent sale of farm products. Inadequate rural infrastructure is a further problem, causing high post-harvest loss levels; these are currently estimated at 20-50% of global production. These post-harvest losses occur in the field or are caused by poor storage, but losses also occur along the global food supply chain all the way to the consumer (Grethe et al. 2011, p. 34).

Approximately 22% of the hungry and undernourished have no land at all and generally eke out a living as rural labourers, dependent on seasonal income. A further 8% are nomads (pastoralists) or depend on fishing or forest resources for survival.

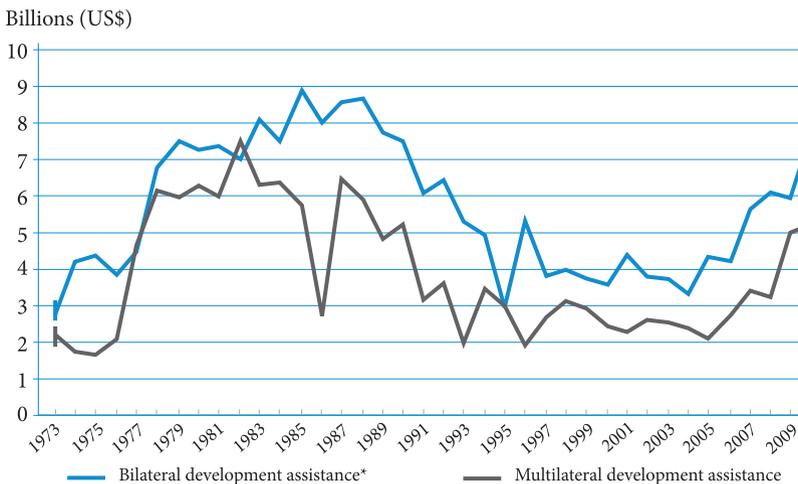
The high percentage of landless families, especially in India and Latin America, shows that in order to improve the situation, measures aimed at giving these people access to resources – e.g. through the

distribution of vacant land during agricultural reforms - have a key role to play. However, another important question is how more jobs can be created in rural regions. There is potential to create many new jobs in sectors which depend on agriculture, e.g. in processing and sales of locally produced foods.

It is these groups, first and foremost, which have been systematically neglected in agricultural policy. International and national agricultural research has spent too long focusing on regions favourable to agriculture – e.g. areas with good soil or where irrigation can be used to good effect – or on a small number of key export products such as bananas, coffee and cocoa. In parallel, agricultural and rural investment in the developing countries has decreased over the past three decades. The agriculture budgets of many developing countries were halved between 1995 and 2005, and the share of official development aid (ODA) to agriculture declined sharply from 18% in

**Figure 5: Decreasing aid to agriculture from the mid 1980s - upward trend since 2005/2006**

**Official development assistance (ODA) commitments to agriculture, 1973-2010**



\*Sum of development aid to agriculture of all countries which are members of the OECD Development Assistance Committee (DAC)

Source: Based on <http://www.oecd.org/dataoecd/54/38/44116307.pdf>, 29.3.2012, p. 1, current figures from the OECD, author's own graphics

1978 to an all-time low of less than 4% in 2007 (OECD 2010, p. 1) [see Figure 5].

Two countries – Brazil and Vietnam – have achieved notable success in reducing hunger in recent years, using highly disparate policy instruments (Welthungerhilfe et al. 2010). These countries show that targeted promotional policies which aim to improve the income status of particularly disadvantaged groups can have very positive results. In Brazil, President Lula da Silva's government initiated a number of social welfare programmes which have improved the income status of families particularly affected by hunger. The programmes ultimately reached more than 50 million people, with the result that the proportion of undernourished persons within the population decreased from 10% to 6% in just four years (FAO 2009, p. 13). Vietnam achieved a similarly rapid reduction by providing targeted support, over many years, for smallholder farmers in rural regions, focusing on output and sales of their crops and thus boosting rural incomes.

### **Trend 3: From surplus to scarcity - evidence of a trend?**

Since the world food crisis, a growing number of analyses and assessments start from the premise that the era of structural surpluses in the world's agricultural commodities markets may well be over and that in the long term, a situation of structural scarcity beckons. Prices in the world's agricultural commodities markets are seen as a key indicator of this trend: these fell in the wake of the crisis but then surged again from 2010 [see Figure 1]. A number of changes observed on both the supply and the demand side are generally

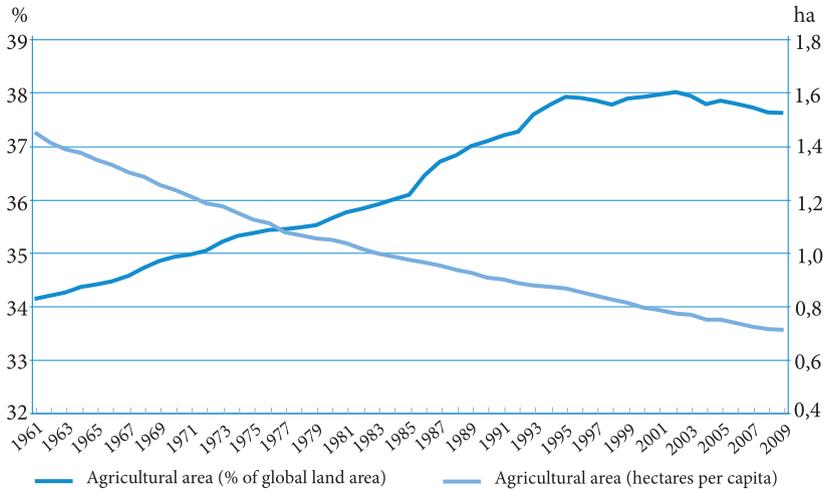
cited as evidence of this trend reversal.

On the *supply side*, the following trends are relevant: every day, around 20 000 hectares of agricultural land around the world are lost to over-exploitation or salinisation (FAO et al. 2009). Besides the soil loss caused by over-exploitation (salinisation, soil erosion, desertification), urbanisation also destroys large areas of fertile farmland. According to figures published by the FAO, urban growth will add around 1.5 billion people to Asian cities by 2030 (Matuschke 2009, p. 2). Rapidly growing cities need large amounts of space for the anticipated expansion of housing, transport and industry. Fertile land is particularly affected by urbanisation. According to the FAO, globally, around 13 million hectares of forests were converted to other uses, primarily in order to create farmland, or lost through natural causes each year between 2000 and 2010 (FAO 2010, p. xiii). Deforestation exacerbates the problem of water scarcity for rainfed and irrigated agriculture alike. In its Fourth Assessment Report, the *Intergovernmental Panel on Climate Change* (IPCC) calculates that a temperature rise above 3°C will increase climate variability for agriculture, and that decreased regularity of rainfall patterns will have a dramatic effect on rainfed agriculture (IPCC, p. 48ff.). By 2050, around 1.2 billion hectares of land will fall below the critical limit for the growing season, namely 120 days. And in some semi-arid areas, yields from rainfed agriculture could be reduced by up to 50% by 2020 (Bals et al. 2008).

It is significant that worldwide, arable land per person has decreased by almost half since the 1960s [see Figure 6], although land under cultivation, as a proportion of the Earth's total land area, increased to the 1990s. However, this too has decreased in the meantime.

## Figure 6: Steady decrease in the share of land devoted to agriculture (per capita)

Agricultural area: % of global land area and in hectares per capita since 1961



Source: Author's own graphics based on Oxfam 2011, p. 17, data: <http://faostat.fao.org/site/377/default.aspx#ancor>, 29.3.2012; <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>, 29.3.2012

Among the changes on the *demand side*, population growth must be mentioned first of all. The world's population is expected to increase by more than two billion to approximately 9.2 billion by 2050 (DSW 2011). Virtually all this population growth (86%) will occur in major urban centres in developing countries.

A factor of great relevance to the world food situation is the demand for meat: depending on type of livestock and feeding regime, between 2.5 kg and 7 kg of cereals are needed to produce 1 kg of meat; these cereals are then no longer available for direct human consumption. Since the world food crisis, however, demand for meat has stagnated; this applies to pork, for example, the most widely eaten meat in the world. However, rising incomes will drive a shift in diets from staple foods to more "value-added" and higher protein products, especially for consumers in emerging economies who will increasingly demand meat and dairy products in their consumption choices (OECD/FAO 2011, p. 24).

In Europe, the US and China, meat production is dependent on imports of animal feed. According to a new study by WWF, the production of animal feed for the German livestock sector alone requires an area of 4.5 million hectares in developing countries of the Global South (WWF Deutschland 2011). Besides imports of animal feed, a further factor of increasing relevance is that the expansion of ethanol and biodiesel production in developing countries for export to Europe and the US could well put local communities' food security at additional risk if it deprives smallholder and subsistence farmers of their access to land. The demand for biofuels is partly driven by new legislation in the EU and the US requiring the admixture of biofuels to conventional fuel. Between 2000 and 2009 alone, global output of bioethanol quadrupled and production of biodiesel increased tenfold.

Ethanol is by far the largest biofuel in the world and is mainly produced in Brazil (from sugar cane) and in the US (from corn).

**Table 1: Production of biofuels in millions of litres**

	1995-1997	2000-2002	2007-2009
<b>US</b>			
Ethanol	4 542	7 167	34 887
Biodiesel	0	29	2 318
<b>EU</b>			
Ethanol	102	1 034	4 889
Biodiesel	450	978	8 041
<b>Brazil</b>			
Ethanol	14 177	11 490	25 308
Biodiesel	0	0	957

Source: HLPE 2011b, p. 32, based on [http://www.agri-outlook.org/document/6/0,3343,en\\_36774715\\_36775671\\_40969158\\_1\\_1\\_1\\_1,00.html#](http://www.agri-outlook.org/document/6/0,3343,en_36774715_36775671_40969158_1_1_1_1,00.html#), 29.3.2012

2011, more than 40% of US corn was consumed in the production of ethanol, an increase from just 9.7% in 2004 (USDA Economic Research Service 2009).

The trends outlined here indicate that world food security is increasingly at risk. What's more, climate change is obviously causing greater variability in rainfall in many regions, as well as an increase in extreme weather conditions such as heavier and more frequent flooding and drought. Without an appropriate agricultural policy response at both the national and international level, future shortages will be inevitable.

Shortages always have a socio-economic dimension, however, as there are many possible policy responses to the described trends. As outlined above, post-harvest losses and food wastage claim an estimated 20-50% of output. These two figures alone show that there is still potential to feed a growing world population in future. Furthermore, the provision of more intensive support for smallholder farmers in regions which have rarely received agricultural development funding offers particularly good prospects for the future. Here, it has been possible to substantially increase the sometimes very low yields using relatively simple methods, and this has

in some cases been achieved more easily and with broader impact than is the case with further production increases in intensive agriculture (IAASTD 2009).

#### **Trend 4: The new boom: investment in farming and agricultural commodities at a time of rising prices**

Rural development has suffered from decades of under-investment. Public funding for this sector in many countries of the Global South was close to zero. Indeed, during the debt crisis in the 1980s and 1990s, many developing countries were advised to cut their public spending and subsidies for rural regions as part of their efforts to make savings and consolidate their national budgets. Since the reversal in agricultural price trends in 2007/2008, however, and also as a consequence of the global financial crisis, there has been an upsurge in investment in rural development, particularly from the private sector. Public-sector investment is also rising, although this increase is slow in the countries of the Global South. This trend is having

various effects, notably the current soaring demand for land (*land grabbing*) and a substantial increase in trading on the agricultural commodity exchanges (speculation).

The *International Land Coalition* reports that by the end of 2010, land transfers amounting to more than 200 million hectares had been registered in countries of the Global South. Based on a systematic analysis, the Coalition concludes that as much as 80 million hectares of land have actually changed hands over the last few years, 60% of this in Africa. Indeed, almost 5% of agricultural land has been purchased or leased by investors since 2000 (Anseeuw et al. 2012).

Biofuel production is now a major driver of large-scale purchases of farmland. In 2006, an estimated 14 million hectares of land were in use for biofuel cultivation, and this is predicted to increase to 34-53 million hectares by 2030 – equivalent to 3-4% of available arable land worldwide. Within the EU alone, it is estimated that meeting the proposed 10% biofuel admixture target by 2020 would require 20-30 million hectares of land under production, mostly outside Europe. The International Energy Agency predicts that by 2050, biofuels will account for 20-30% of global transport fuels, as oil becomes increasingly scarce. Land requirement projections estimated for this potential biofuel development trajectory vary from 100 million hectares of additional land to a projected land use requirement of 650 million hectares (Murphy et al. 2011).

According to the *International Food Policy Research Institute (IFPRI)* in Washington, the growing speculation on the commodity futures exchange also played a by no means insignificant role in the increasing level and volatility of food prices during the food crisis (Robles et al. 2009). The flow of speculative capital out of real estate has

changed the profile of investors on the commodity futures exchanges. Although the available statistics are patchy, *Foodwatch* has analysed the composition of investors at the Chicago Board of Trade, one of the world's largest futures exchanges, and found that until 1999, the share of wheat contracts held at this exchange for purely speculative purposes was no more than 30% of the total volume, with a good 70% of contracts related to normal business (Schumann 2011, p. 40). At the futures exchanges, producers and purchasers make contracts for purchases or sales which are transacted on a date in the future. These "futures" enable the parties to hedge prices for future business transactions, thus reducing uncertainty. The producers are secure in the knowledge that they will be able to sell their harvest at a fixed price. If prices rise above the agreed price by the date of the transaction, the producers lose out on potential income. If prices are lower than the fixed price, the buyers pay more than the current market price. The benefit of these contracts is that they reduce risk for both sides. For many years, these transactions formed the bulk of contracts on the commodity futures exchanges. This situation has now completely reversed, with up to 80% of positions currently attributed to speculators. Moreover, new types of institutional investor, such as pension funds and insurance companies, have entered the market and are betting on rising or falling commodity prices. Schumann argues that this trend – speculation with foodstuffs on commodity exchanges – drives up prices and causes hunger and starvation to spread.

Other authors identify short but sharp price fluctuations in the global agricultural markets, the price effects of utilising agricultural crops for fuel, and three decades of under-investment in the farm sector as key factors (HLPE 2011b, 25ff.). The fact that the

era of surplus production may be drawing to an end is also driving up prices. These effects are reinforced, firstly, because demand for food is relatively inelastic: consumers – especially in the industrialised countries – do not buy significantly less food when prices rise. As a result, there is no fall in demand even when prices are high. Secondly, as a result of trade liberalisation in developing countries over the last 20 or 30 years, price trends impact directly on national and local markets because governments now have very little scope, in the majority of cases, to mitigate their effects by adopting national policy measures such as food price subsidies or import tariffs.

Poorer households in countries of the Global South often have to spend as much as 60-80% of their disposable income on food, so they lack the purchasing power to cope with rising prices. Instead, they generally have to reduce the number of daily meals they eat, or buy food of much poorer quality. Both these factors contribute to chronic hunger and malnutrition. This applies especially to families who do not grow any food of their own, such as the urban poor. On the food producer side, however, higher prices can increase farmers' incomes, creating opportunities for smallholders to boost their investment in their farms and thus improve yields and soil fertility/infrastructure (storage, etc.) over the longer term.

At the same time, the data show that the price rises which have occurred since the world food crisis have had negative effects even in rural regions where the majority of undernourished households are food producers. The FAO's annual report, *The State of Food Insecurity in the World* (2011), investigates the effects of price trends on rural households. According to the FAO, the negative effects are due to the fact that many of the

poor and disadvantaged households in rural regions are typically net food buyers. Although they grow one or two crops of their own, they have to sell part of their crops to purchase additional quantities of other foods, quickly cancelling out the positive price effect of growing their own food (FAO 2011b, p. 22). Furthermore, resource-poor farming households – especially those headed by women – have found it almost impossible to improve productivity and output. There are various reasons for this, mainly related to the marginalisation of this group. Often, these households lack secure land tenure. Female-headed households in many countries find it particularly difficult to obtain security of tenure. Without secure access to land, however, they cannot obtain credit, which means that they cannot make productive investments in improving soil fertility or storage facilities, for example. As a result, they are forced to sell their crops as soon as they are harvested, when prices are very low. Smallholder farmers generally also lack the tools, equipment and skills to expand production or switch to other crops, especially if local agricultural extension services are poor or non-existent. All these factors combined mean that many farming households in rural regions have suffered rather than benefited from the high prices.

The FAO's report also shows that it is the increase in price volatility, rather than the price increases themselves, which has the greatest impact on smallholder farmers. For many farmers, price volatility means volatility in income (FAO 2011b). Not only have general price levels risen overall compared with pre-crisis levels; the degree of fluctuation has also increased [see Figure 1]. Volatility makes it difficult for farmers to obtain credit even if they have land titles to use as collateral. Even a short period of

increased price volatility is often enough for poor households to lose their land. This is one of the main reasons for the rising number of suicides among Indian farmers. Volatility means that producers cannot invest in growing more profitable crops as they have no financial reserves to cushion them from phases in which prices may fluctuate dramatically. For example, some poor farmers have switched from growing more profitable crops (e.g. Basmati rice) in order to avoid the high price volatility associated with these crops, and continue to grow their usual crops instead, selling them on local markets where volatility is not so extreme.

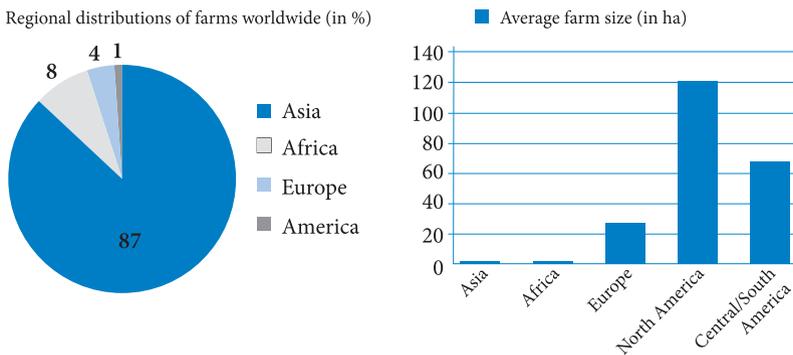
Average farm size in Africa and Asia is just 1.6 hectares (compared with 121 hectares in North America); in absolute figures, however, Asia has by far the largest number of farms, followed by Africa [see Figure 7]. This illustrates the great importance of small-scale farming for food security. It is essential to stabilise the income situation of these smallholder farms in order to reduce hunger. Productivity increases on their land directly benefit these families' nutritional and income status.

### Trend 5: Governance deficits at the national level - still a key factor

The above analysis shows that agricultural policy decisions taken at the national level are extremely important in relation to the described trends. Political neglect of rural regions can be observed in a great many countries of the Global South. At their 2003 conference in Maputo, Ministers of Agriculture of the African Union (AU) committed to allocate at least 10% of their national budgetary resources to agriculture and rural development. To date, however, only 10 African countries have fulfilled this commitment (Brot für die Welt et al. 2011). Due to chronic under-investment, rural regions not only lack essential infrastructure, such as roads, agricultural information and extension services, agricultural and veterinary offices, etc. The rural regions are also less attractive places to live, with a shortage of good schools and health care facilities, poor access to electricity and deficits in other areas of service provision.

**Figure 7: Most of the estimated 525 million farms worldwide are small farms in Asia**

#### Regional distribution of farms and average farm size



Source: GLS Treuhand Zukunftsstiftung Landwirtschaft/Stiftung Eine Welt, Eine Zukunft 2009, p. 10

Poor infrastructure increases production costs for smallholder farmers, as inputs such as fertilisers are much more expensive to purchase due to the lack of adequate transport. Markets for agricultural products are also more difficult to reach. Without agricultural extension services, smallholder farmers have no access to information about the latest agricultural research. A weak rural banking system makes it more difficult for farmers to obtain credit. In addition to the problem of underfunding, a high level of legal uncertainty is characteristic of many rural regions.

These precarious conditions are reinforced by poor land use planning and water resources management. A lack of legal clarity on land use can also cause serious conflicts between smallholder farmers and pastoralists, but also between different groups of smallholder farmers. Problems with access to scarce resources such as land and water are likely to increase in many rural regions if governance and regulation at the central/local level are weak. A human-rights-based approach to policy-making can help in identifying priorities for resource management and developing appropriate allocation, safeguarding and mediation procedures. Rural regions often have highly complex land tenure and distribution structures. In many countries, land is traditionally controlled and allocated by local institutions (chiefs, etc.). Reconciling these traditional ownership structures with the development of a reliable land registry system is a major challenge. Undertaking the requisite investment in rural regions requires a great deal of patience and persistence as well as adequate financial resources. It would, however, greatly benefit and dramatically improve the situation of poorer smallholder families in particular, who have so far rarely received any kind of assistance. In order to address these problems, the Committee on

World Food Security (CFS) has developed the *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*, which were officially endorsed in mid May 2012.

There are many reasons for the lack of interest in rural regions. First and foremost, their political significance is often minimal. Then there is the fact that investing in rural development and rural infrastructure is often a complex matter, requiring a long-term approach. In many countries, there are barely any functioning institutions with problem-solving capacities. Many institutions were dismantled during the era of structural adjustment programmes; those that remain often have a record of inefficiency. It is becoming increasingly apparent, however, that the lack of institutions with governance capabilities is a major problem. To take just one example: who is responsible for coordinating adaptation to climate change in the Sahel if no reliable meteorological data are generally available, there are no studies on longer-term meteorological trends and their effects on the hydrological regime, and no agricultural authorities to advise farmers on adaptation measures, to trial new types of seed, to provide veterinary information, or to advise on water resource management. The lack of appropriately resourced institutions impacts on many areas of relevance to rural development – from land registration to investment and a functioning legal system. Additionally, there is often a very high level of corruption in those institutions which do exist. Social movements committed to reforming these institutional structures in order to improve their performance have very little political scope in many countries and often find themselves facing penalties under criminal law.

## Trend 6: Weak global governance institutions in the food sector

The promotion of rural regions and the development of rural communities have rarely featured on the international policy agenda in recent decades. The bilateral and multilateral development budgets available for these areas started to decrease from the mid 1980s [see Figure 4], falling from almost 20% of ODA to less than 4% in 2005 (Windfuhr 2011). The world food crisis marked a turning point. At the G8 Summit in L'Aquila, Italy, in 2009, new financial resources in excess of US\$ 20 billion were pledged for rural development, although only around US\$ 6 billion was new money.

The world food crisis also revealed the weakness of international governance in relation to food security and global agricultural development. None of the UN's three Rome-based specialised agencies – the FAO, the World Food Programme (WFP) and IFAD – was able to take over the management of the world food crisis. It was UN Secretary-General Ban Ki-moon who took the lead in January 2008; he set up a High Level Task Force to coordinate the United Nations' activities and develop an action plan for a short- to medium-term response.

The World Summit on Food Security in 2009 responded to these experiences and, with the conferral of a new mandate for the FAO's existing Committee on World Food Security (CFS), created a new governance structure for global food security, with responsibility for coordinating the work of the international community, intergovernmental organisations, civil society and the private sector in this field. An autonomous *Civil Society Mechanism* was also established for the Committee; its representatives are desig-

nated by a selection process within civil society itself. Within the CFS – a new type of consultation mechanism within the UN system – social movements and organisations of smallholder farmers, fisherfolk and herders/pastoralists hold the majority of seats, while the influence of national and international development organisations has been reduced. The reformed CFS is now also supported by an advisory body, the *High Level Panel of Experts on Food Security and Nutrition* (HLPE), which is authorised to commission studies on topical issues relating to global food security. The first two reports commissioned by the HLPE focused on price volatility and land tenure respectively. They were prepared by mixed teams and are frank in their treatment of the challenges posed by sustainability and the right to food (HLPE 2011a, 2011b). In parallel to the CFS, the G8 and G20 have also begun to discuss the topic of hunger on a regular basis and have thus evolved into a second line of governance in relation to global agricultural policy. However, some institutional rivalries exist: the CFS operates in accordance with the established logic of the UN system, with each country having one vote. By contrast, the G8 and G20 epitomise a system of club governance in which a small number of countries exert considerable influence over the decisions adopted at the international level.

The inadequate response to the world food crisis also reflects the fact that the FAO itself is in crisis. It is currently undergoing a process of reform after scoring very poorly in an independent external evaluation. The evaluation report, published in 2007, is highly critical of conditions within the FAO, which it describes as being "on the brink". The report states that the FAO is still urgently needed in certain areas because it delivers essential public goods and services – such as international

standard setting, monitoring of global food trends, and managing knowledge about rural development. However, the evaluation report is scathing about the deficiencies in the FAO's administrative and management systems, and highlights the serious weaknesses in its in-country activities in the developing world (FAO 2007). The report recommended a number of sweeping reforms which were subsequently discussed at various FAO conferences. Much will depend on the FAO's new Director-General, José Graziano da Silva from Brazil, who took office in January 2012. One of the first major projects which he must address, and which is currently under way, is to promote the FAO's decentralisation. Whether this is the right approach, given the organisation's weakness at the national level, remains to be seen.

The regular funding which the FAO receives from member countries' annual contributions has been steadily decreasing or stagnating for years. Underlying many of the debates on the world food situation is an attempt by various intergovernmental organisations to secure a larger share of the funding for this area, which has started to increase again at long last. During the world food crisis, the WFP initially had a much larger budget with which to respond to the crisis. However, rising prices on world farm markets are now driving up the WFP's own food purchase costs. The FAO is engaged in a battle with WFP and IFAD over the available funding, with the World Bank and the United Nations Development Programme (UNDP) also involved. But the rivalry not only centres on funding: it is also about relevance and political significance.

Private-sector interest in the FAO has also noticeably increased. Many companies would like to utilise the trend reversal in order to attract more investment into their own

fields of business. Besides the companies directly involved, such as the major suppliers of fertiliser, new types of actor, such as charitable foundations, are also increasing in significance. *The Bill & Melinda Gates Foundation* is in a position to regularly increase its budget for agriculture and in the not too distant future, is likely to have more financial resources at its disposal than the FAO itself.

The FAO is also increasingly caught between different paradigms and cannot decide whether it should focus primarily on combating hunger, thus prioritising disadvantaged groups, or whether it should cultivate particularly close links with the agricultural sector, in which case its role would be to act as a global facilitator for agricultural investment, technology transfer and standard setting. The key question concerns the direction in which the growing investments in rural regions will flow. Will they be channelled into intensive agriculture, in order to meet growing demand, or will they promote a form of agricultural development which prioritises sustainability and investment in people? The *International Assessment of Agricultural Knowledge, Science and Technology for Development* describes the physical limits to a "business as usual" approach (rising greenhouse gas emissions, severe environmental degradation such as soil erosion, etc.). But it is the representatives of intensive farming, first and foremost, who are currently lobbying the FAO and G20 and presenting the case for further modernisation and intensification of agriculture.

## Recommendations

Global food security governance thus involves a number of forums and actors who appear to be in competition with each other. In view of the urgency of this issue, however, it would be desirable for the CFS to be recognised as the key institution in this area and to be equipped with the appropriate governance and policy-making authority. A multitude of factors – from the marginalisation of rural populations to the growing speculation in the commodity exchanges and the promotion of biofuels - have contributed to the world food crisis and cancelled out previous efforts to combat hunger. At the international level, strategies for managing those factors which can only be resolved through international cooperation should be agreed within the CFS; these include trade and investment policy issues, measures to curb food speculation, and the response to climate change, biodiversity loss, etc.

The present conditions at both national and international level not only inflict suffering on the urban poor; the majority of marginalised smallholder farming families in rural regions and landless farm workers are also suffering from the price increases, as they find it almost impossible to capitalise on the opportunities afforded by rising prices.

In essence, the continued existence of hunger can be explained, first and foremost, by national governments' lack of accountability to poor and disadvantaged groups. Improving governance (capacities) is therefore a key prerequisite for progress on

reducing hunger. Effective strategies against hunger and undernourishment must start with measures to reduce discrimination and marginalisation of rural populations. The strength of a human-rights-based approach is that it focuses on the legal status of particularly disadvantaged groups and demands that the state be accountable to these groups. The right to food – underpinned by international standards – is an appropriate instrument to test governance capacities and willingness. It can and must be asserted by civil society, especially in countries of the Global South. One example is the *African Network on the Right to Food* (ANoRF), comprising national coalitions in more than 18 African countries, which was set up with the aim of monitoring governance performance on the right to food and subjecting it to public scrutiny ([www.rapda.org](http://www.rapda.org); cf. Brot für die Welt et. al. 2011). The Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security, adopted unanimously by the FAO Council in 2004, contain an overview of what should be expected from good governance based on a human rights approach at both national and international level in a number of policy areas (FAO 2005).

Policy strategies should also focus on increasing sustainability in production processes: this means reducing soil erosion and over-exploitation of water resources, conserving species diversity, cutting greenhouse gas emissions from agriculture and land use change, and increasing the incomes of particularly disadvantaged groups as a key factor for combating hunger.

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### A Global Rule of Law Cui bono?

Dr. Henning Melber

In mid September 2012, the annual High-level Meeting at the opening of the United Nations General Assembly will focus on the rule of law (RoL). In preparation for the meeting, the UN Secretary-General (MSG) circulated a report on 16 March 2012 entitled *Delivering Justice: programme of action to strengthen the rule of law at the national and international levels*. RoL is thus reinforced as a necessary focus within the debate for the further promotion of existing normative frameworks. Exploring the notion further adds to the discussion about common if not collective universal values, as also reflected in the current debate on global constitutionalism.

Rooted in the *Universal Declaration of Human Rights* and the *International Covenant on Civil and Political Rights*, RoL can be considered an essential paradigm within global governance. Interestingly enough, however, civil and political rights, as much as any reference to RoL, were conspicuously absent from the Millennium Development Goals (MDGs). Their emphasis on the second generation of socio-economically related human rights and the necessary material preconditions for a life in human dignity were undoubtedly important but failed reducing the debate to a purely "developmentalist" perspective. This often served as an excuse for substantive forms of governance, curtailing democracy and civil rights in the pursuit of what was claimed to be socio-economic "progress".

On the other hand, an emphasis purely on RoL runs the risk that the necessary "infrastucture" and linkages with the other dimensions of human security and development will in turn be overlooked. The UNSG's preparatory document seeks to enhance a com-

mon understanding of RoL; this Spotlight explores the benefits and possible setbacks and pitfalls in the debate.

The rule of law as good governance

Justice needs a rule of law that is more than the law of the rules. When Algerian diplomat Tahar Brahim gave the Dag Hammarskjöld Lecture in 2002, he placed the rule of law at the core of his reflections. As he emphasized, law must have human beings as its focus. Emerging during the era of the Enlightenment, such a concept of law ultimately embraced all societies in a global order (see text).

The global community in search of more justice therefore must come to terms with the inherent difficulties in finding measured and justified responses to injustices exceeding the tolerance limits (whatever tolerable limits in the case of injustice and violence might mean). For far too long, the despotic regime in our world have protected by the principle of state sovereignty and non-interference in domestic affairs and could get away therewith with murder. Since the turn of the century, this has changed. The Westphalian order, critically challenged since its early days by concerned advocates of a responsible, humanitarian-oriented international law for its exclusive emphasis on the domain of national sovereignty, no longer protects despots by its means.

The UN has promoted further and more systematic initiatives since the Secretary-General's annual report *The Rule of Law and Transitional Justice in Conflict*

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Atta Muhammad Murtaza Durrani

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September 2012; 4 pages

**Foreign Voices**  
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### Linking emergency aid with long-term development in Pakistan: From response to preparedness

Atta Muhammad Murtaza Durrani

Pakistan is facing severe natural and manmade disasters. The country is prone to frequent and intense large-scale natural catastrophes such as floods and earthquakes. The volatile security situation together with social challenges, e.g. a high unemployment rate and limited access to basic facilities like gas/water/electricity, are working as a catalyst for increasing vulnerability. This paper prepared for the Berlin Summer Dialogue 2012 on "International Disaster Relief: The challenges posed by fragile states and climate change" argues that responding to these challenges with "response oriented" aid will no longer work. What is needed is to shift the focus of all engaged stakeholders from a response-oriented to a preparedness mentality.

Geographically, Pakistan is placed at a strategic location in the South Asian belt, with the Himalayas in the north and the Arabian Sea to the south. Due to discrepancies in the different regions exposed to global warming, the country faces monsoon flooding, flash flooding, landslides, avalanches, glacial lake outburst flows, sea intrusion, droughts and cyclones. Earthquakes also occur regularly. Additionally, a volatile security situation, political unrest, the interference of the external world's national numbers of interest, an increasingly precarious socioeconomic situation with fewer jobs, falling access to basic facilities such as gas/water/electricity, inflation and the

media highlighting negative and violent features are working as a catalyst in increasing vulnerability in Pakistan.

However, until 2008 there was no nationally recognized fund entity in Pakistan for coordinating the humanitarian response to the catastrophes resulting from this high vulnerability. At that time, the international community responded to Pakistan's requests for assistance by providing funds, which were channelled through government pipelines. Ensuring accountability for the funds was a major challenge for donors, however. Building a consensus on the use of multilateral and bilateral commitments and setting modalities, especially for early recovery, flood risk reconstruction, was a lengthy process. Finally, in 2008/2009, the Earthquake Reconstruction and Rehabilitation Authority (ERRA) was formed and funds worth billions of euros were routed through these structures. But humanitarian procedures and remote monitoring of access remained difficult for donors.

On the ground, slow progress on reconstruction, with few visible outcomes in spite of available funding, created an environment of mistrust among stakeholders (donors/international humanitarian agencies/general public in Pakistan). Then, in 2010, the Pakistani Government mandated the National Disaster Management Authority (NDMA) and the Prime Minister's Secretariat to undertake the coordination

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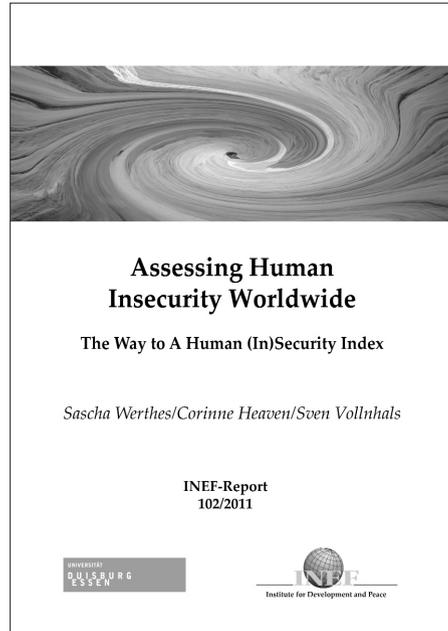
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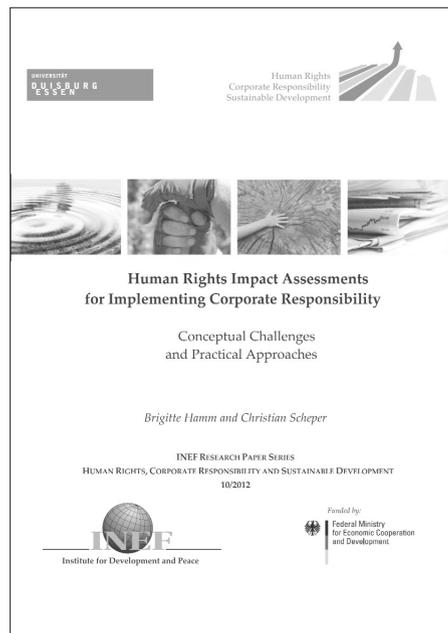


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