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Deutsches Institut für  
Entwicklungspolitik



German Development  
Institute

# Green technology cooperation with emerging economies

## Accelerating deployment – Promoting development – Seizing market opportunities

German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE)  
Bonn, Tulpenfeld 6  
27 September 2011

The findings of the Intergovernmental Panel on Climate change have helped achieve widespread consensus that climate change is one of the most serious problems of this century. While severe impacts of increased global warming are expected to be felt only in the coming decades, bold action to prevent these need to be taken today. Most national policies, however, do not reflect this challenge yet.

Over the past decades, globalisation and industrial development have facilitated high economic growth in several emerging countries. This has led to a rapid rise in energy demand, satisfied mostly by fossil fuels. While in the past, greenhouse gas emissions emanated mainly from high income countries, today, two amongst five of the highest GHG emitting nations are less developed countries. At the same time, access to energy as a precondition for development remains a major challenge in large parts of the world. In order to meet energy demand for development and, furthermore, ensure that emissions decrease in total terms, it is paramount to decouple energy and greenhouse gas emissions.

The deployment of green technologies, e.g. for energy efficiency and renewable energies, on a massive scale must be part of the solution. Furthermore, green technologies in themselves provide opportunities for building competitive advantages and creating jobs. OECD estimates suggest that commercial opportunities related to investments in environmental sustainability could run into trillions of dollars by 2050. Early adoption of strict environmental regulations and smart cooperation strategies may give countries a head-start in the race for market shares in green technologies.

As one of the most active promoters of international agreements on climate change, Germany is in a credible position to promote green technology cooperation. At the same time, its private sector is leading in many green technologies. In recent years, different ministries have initiated an increasing number of international collaborations for green technology development. In its new concept for development cooperation, the German Ministry for Economic Cooperation and Development (BMZ) states the need to “incorporate tools for financing mitigation and adaptation measures, economic and technology consulting and methodological skills, institution-building, science and research, and further training into a kind of ‘German climate innovation brand’. Such systemic solutions need to be implemented after adaptation to local contexts and require interministerial coherence, which we will realise in the form of a technology-based development policy.”

This workshop explores to what extent green technology cooperation with emerging economies can achieve a “triple-win” – accelerating climate change mitigation; creating jobs and capabilities in partner countries; and strengthening the competitiveness of the German economy – and where policy trade-offs exist. On that basis, conclusions for green technology cooperation will be drawn.

The workshop builds on preliminary insights from ongoing BMZ-funded research at the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE). It brings German policy-makers, implementers and international researchers together, with the dual objective of (a) exploring new formats for international collaboration that build on Germany's strength in green technologies in order to achieve the triple-win; and (b) sharpening the focus/ increasing the policy relevance of our ongoing research programme on green technologies.

**Workshop Programme:**

<b>9:30</b>	<b>Arrival and registration</b>	
<b>10:00</b>	<b>Welcome address</b>	<b>Imme Scholz, DIE</b>
<b>10:10</b>	<p><b>Introduction: Strengthening sustainability-oriented innovation systems in emerging economies: Triple win or trade-offs?</b></p> <p>Our concept of <i>Sustainability-oriented Innovation Systems</i> shows how innovation policies need to be different if they aim at sustainability (e.g. setting incentives to internalise environmental costs and to accelerate deployment of clean technologies). The introduction explores how Germany can support such policies and to what extent this may affect economic development in the partner countries and in Germany.</p>	<p><b>Tilman Altenburg, DIE</b></p> <p><b>Discussant: Jim Watson, Director, Sussex Energy Group</b></p> <p><b>Moderator: Anna Pegels, DIE</b></p>
<b>11:00</b>	<b>Challenges, opportunities and policies for green technology cooperation in China, South Africa and the MENA region</b>	<b>Moderator: Shikha Bhasin, DIE</b>
	<p><i>Competing for markets, cooperating for solutions? Strategies for green technology cooperation with China</i></p> <p>China has become a major global economic player. However, the country faces enormous challenges in terms of environmental degradation, energy security and rising factor costs that defy the economic growth model of the past. More recently, the Chinese government has identified green technology development and innovation as an appropriate answer to address these challenges and to create new sources of international competitiveness.</p> <p>How is this strategy shift translated into policies? What does the strategy shift imply for perspectives of cooperation and competition between Chinese and foreign investors in sectors like renewable energies and e-mobility?</p>	<p><b>Doris Fischer, DIE</b></p> <p><b>Discussant: Miriam Schröder, SiNERGi Erneuerbare Energien GmbH</b></p>
<b>11:45</b>	<b>Coffee break</b>	

<p><b>12:00</b></p>	<p><i>Breaking the South African carbon lock-in: A coordinated approach</i></p> <p>Dating from the history of Apartheid and the consequent need for self-sufficiency, South Africa heavily relies on coal as an abundantly available energy source. This has provided the basis for competitiveness of the South African economy for several decades. However, in the face of climate change, the country must now embark on a decarbonisation pathway. This poses a major challenge, which cannot be tackled by single actors but requires a coordinated approach. Such an approach must encompass the coordination of national organisations (e.g. ministries, industry, academia), but also of international actors. In this regard, German ministries are experimenting with a jointly agreed focal area on energy and climate change in South Africa.</p> <p>What are the most promising triggers for breaking out of South Africa's carbon lock-in? To what extent has the new cooperation model among German ministries created synergies, can it be further improved and what is required on the South African side?</p>	<p><b>Anna Pegels</b></p> <p><b>Discussant: Ingolf Dietrich, BMZ</b></p>
<p><b>12:45</b></p>	<p><b>Lunch</b></p>	
<p><b>13:45</b></p>	<p><i>Renewable energy from the North-African deserts: Advancing the DESERTEC vision and supporting technological capabilities and employment in the region</i></p> <p>The Middle East and North African (MENA) region has a high potential for renewable energy generation to satisfy not only local energy demands but also a large share of the increasing energy needs in Europe. Initiatives such as DESERTEC, which have captured the interest of governments and private investors in the North and South of the Mediterranean, are testimony of this perceived strong potential. Several aspects, however, need to be considered in order to better assess the long term impact that such investments could have: What are the political and economic drivers and barriers to developing large-scale renewable energy projects in the MENA region? What can the region gain in terms of technological capability and employment creation? What is the best policy mix for achieving the triple win in the partner countries, and what can Germany offer to promote it?</p>	<p><b>Georgeta Vidican, DIE</b></p> <p><b>Discussant: Franz Trieb, DLR</b></p>

<b>Roundtable discussions</b>		
<b>14:30</b>	<p><b>Chasing the triple win and addressing the trade-offs</b></p> <p>The development of green technologies is propagated as a promising pathway to integrate environmental, social and economic policy targets. There are promising win-win opportunities, but also trade-offs, e.g. regarding budget allocation towards green technology support versus poverty reduction.</p> <p>How realistic is this “triple win”? How do we address trade-offs between these targets? How do we ensure that daily politics and business routines do not sacrifice one target for the others?</p>	<p><b>Moderator:</b> Doris Fischer, DIE</p> <p><b>Participants:</b> Christoph Bals (Germanwatch), Frank Fass-Metz (BMZ), Smeeta Fokeer (UNIDO), Jochen Harnisch (KfW), Gerhard Knies (DESERTEC Foundation), Bernd Utz (Siemens)</p>
<b>16:00</b>	<b>Coffee break</b>	
<b>16:15</b>	<p><b>Implementing the triple win: Towards a coherent German strategy</b></p> <p>Green technology cooperation with developing countries is touching upon a large number of policy fields such as development cooperation, science &amp; technology cooperation, energy policies and export promotion.</p> <p>How can Germany implement the triple win? Which new formats of collaboration are suitable for different countries? How can synergies between the many ongoing activities be exploited in a more systematic way? How can bilateral efforts be linked to international initiatives such as IRENA or the UNFCCC Technology Mechanism?</p>	<p><b>Moderator:</b> Tilman Altenburg, DIE</p> <p><b>Participants:</b> Helmut Blumbach (DAAD), Mohamed El-Khawad (BMU), Henning Krassen (BMBF), Holger Liptow (GIZ), Antonio Pflüger (BMWi), Hein Winnubst (BMZ)</p>
<b>17:45</b>	<b>Towards a whole-of-government approach: The perspective of the Foreign Office</b>	<b>Robert Klinke, Foreign Office</b>
<b>18:00</b>	<b>Snacks and get-together</b>	

Your [directions](#) to the German Development Institute /  
Deutsches Institut für Entwicklungspolitik (DIE)

Tulpenfeld 6  
D - 53113 Bonn

From Bonn Central Station (*Hauptbahnhof*):

Take the U-Bahn U 16/ U 63 or U 66 to "Heussallee/Museumsmeile". Take the exit Heussallee. Turn right after 50 m onto the footpath towards the office complex 'Tulpenfeld'. Follow the signs across Tulpenfeld to the building of DIE at Tulpenfeld 6.

The buses No. 610 and 611 run from the train station Bonn *Hauptbahnhof* to the bus stop "Heussallee/Museumsmeile". Turn onto the footpath towards the office complex 'Tulpenfeld'. Follow the signs across Tulpenfeld to the building of DIE at Tulpenfeld 6.



## Organiser

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