

**REPORT**

# 3GGF

**Global Green Growth Forum**  
11-12 October 2011, Copenhagen



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Copenhagen 11-12 October 2011

Publisher:

Ministry of Foreign Affairs of Denmark

Design:

Kamilla Bloch Design

Photos from the event:

Bjarke Ørsted

Other photos:

Colourbox



## PREFACE

3GF is a Forum of action. It complements the existing international structures by creating a framework for public-private partnerships that can transform the climate and environmental challenges into growth and job creation.

At 3GF in October 2011, participants recognized that business as usual is not a viable pathway to secure sustainable growth. A new green growth paradigm must emerge from the current economic and environmental crises. We agreed that these challenges can be addressed through better cooperation between leading businesses, investors and key public institutions, and that we can jointly realize the potential for long-term global green growth.

This report presents key conclusions and recommendations from the Forum. It features amongst others the Chairman's Summary along with conclusions and recommendations from the thematic discussions that took place in the strategy sessions, where public-private initiatives were launched and scoped in the areas of trade, transport and public procurement.

3GF 2011 demonstrated that the world is ready to take action on the ground for a greener economy. The Danish government remains committed to advancing and accelerating the global green growth agenda and to strengthening global cooperation in this important area. In partnership with the governments of Mexico and the Republic of Korea, we will feed the 3GF conclusions and recommendations into high-level international fora, including the climate change negotiations, Rio+20, G20, the Clean Energy Ministerial and the World Economic Forum.

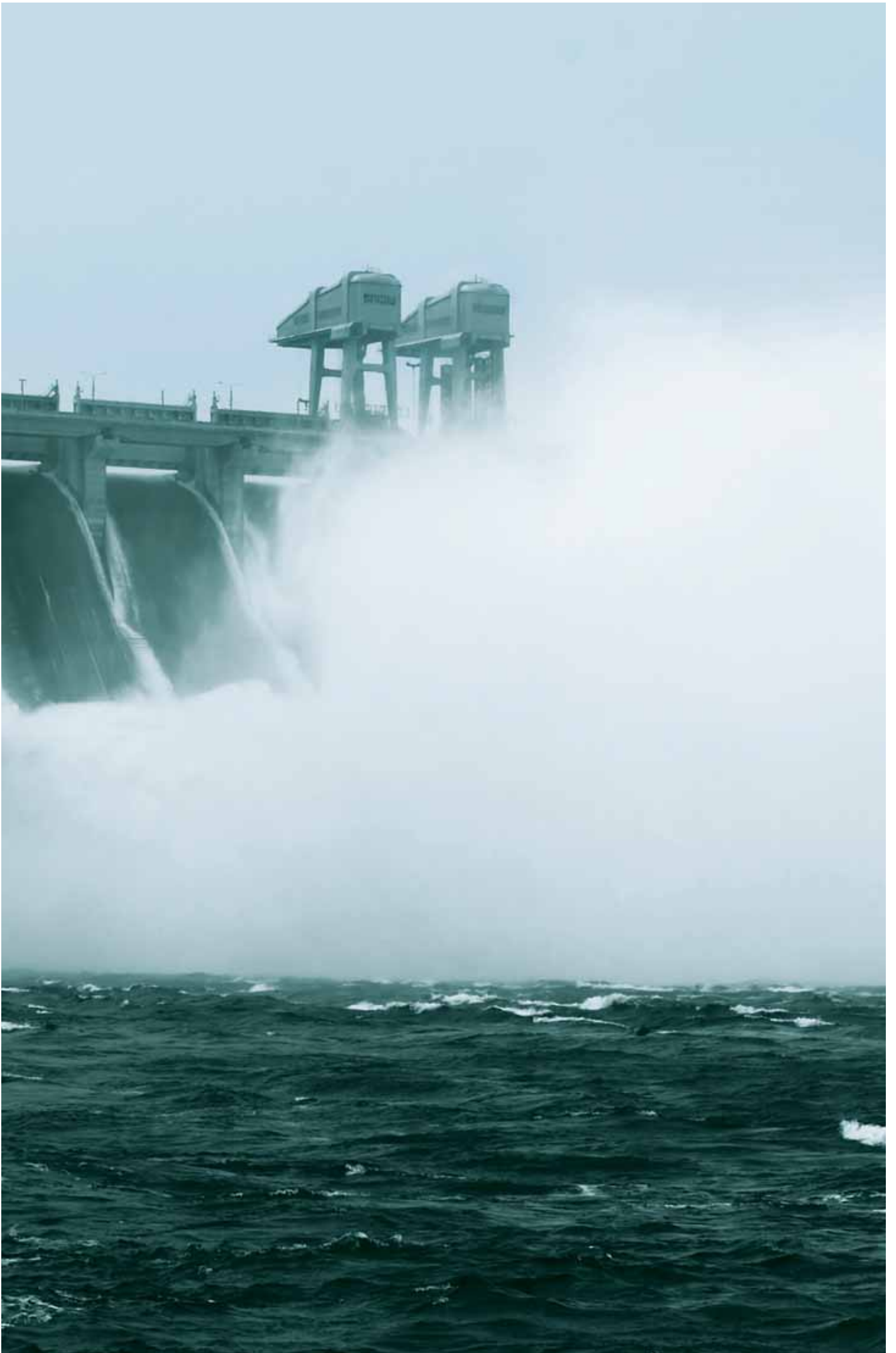
On behalf of the Danish government, I look forward to building on the momentum created at 3GF and to welcoming the world's green growth leaders at 3GF 2012 in Copenhagen on 9-10 October 2012.

**Villy Søvndal** / Minister for Foreign Affairs / Denmark

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# CHAIRMAN'S SUMMARY BY THE GOVERNMENTS OF DENMARK, KOREA AND MEXICO

3GF 11 - 12 OCTOBER, 2011

1. We - the governments of Denmark, the Republic of Korea and Mexico - are united in our belief that a rapid large-scale industrial transition is needed, if we are to achieve a trajectory for global economic growth, whereby we reach the limit agreed in Cancun of a 2 degree Celsius increase. A pathway to green growth that both explores the potential for economic development and job creation, while at the same time lowering global carbon emissions, promoting sustainable use of natural resources, and realizing co-benefits of climate change response is both possible and warranted.
2. The first Global Green Growth Forum, convened in Copenhagen, Denmark, is held at an important time: Key policy makers and business leaders, from around the world are rightly concerned with the immediate challenges in financial markets and across the global economy. Founding partners and participants in the Forum recognize that a new global green growth paradigm must emerge from the crisis - a return to business as usual is not a viable pathway to secure sustainable long-term growth.
3. The transformation is already creating a large and growing global market for technology and solutions valued at USD 500 billion. We realize that the potential opportunity for expanding this market and scaling up business for green solutions, new and innovative technologies is enormous. Green growth requires the effective mobilization of financial, technological and human capital at local, national and international levels, at a historically unprecedented pace and scale. In addition parallel efforts at national level in building capabilities to ensure that green growth goals can be defined and realized are needed.
4. We agree that the needed green transition is global in scale and will take place in a wide range of sectors of crucial importance to all countries. These include energy production and consumption, transport, water, agriculture, industry production processes, housing etc. While the transition should be accelerated within each sector, the synergy of bringing the discussion of the sectors together, coupled with the cross-cutting perspectives on trade, finance and technology transfer serves as a catalyst for the transition.
5. At a time when both traditional forms of international co-operation between governments and national approaches to industrial and economic planning in many countries are failing to deliver much needed policy coherence to underpin long term growth and development, which is necessary to secure environmental and social sustainability, we are actively catalyzing new forms of collaboration between governments and business that are needed to effectively align policy signals, effective regulatory interventions and removal of key barriers with investment and market potential for green growth. Through this innovative collaboration, we are aiming at filling a gap in the current international architecture, which existing structures, institutions and processes are currently not mandated or equipped to address, while at the same time, we would be mindful of existing efforts and would be seeking to complement these.
6. At the first Global Green Growth Forum, developed in association with the Global Green Growth Institute, discussions over two days centered on concrete and emerging public-private initiatives with a focus on energy, transport, trade and financing. Furthermore, green growth was debated with a view to the enabling environment, national and international action as well as collaborative action going forward.

### Key points made at the Forum:

7. Participants recognized the need for green growth policies, fiscal and regulatory settings that establish and maintain stable macroeconomic enabling environments, encourage greener behavior by the public sector, companies and consumers, facilitate smooth and equitable creation of jobs, capital and technology and provide appropriate incentives and support to green innovation.
8. The Forum stressed that open markets and harmonized standards are essential in order to secure the global development and dissemination of cost effective solutions that support diffusion of green technologies, reduce costs by enabling scaling up of production, encourage competition and enable consumers globally to purchase green technologies at world market price. In the absence of a global price on CO<sub>2</sub> this is even more important.

9. In this context international cooperation is more necessary than ever in order to improve the potential market value of green products and the potential return of green investments. This includes the fulfilment of the WTO agreements and an early conclusion of the Doha round of trade negotiations, fair and equal access to markets, removal of trade and non-trade barriers, and prevention of green protectionism as well as levelling the playing field for green solutions.
10. To this end, the Forum also urged governments to intensify the work towards creating international standards in a number of clean energy technology areas, or, if possible and necessary, work with the business communities in relevant areas to develop and promote specific standardization agreements. The work could be focused on selected areas, where the market potential and the cost reduction potential of standardized products are the largest.
11. Participants also underlined the need for a clear regulatory environment that promotes the internalization of environmental externalities, among others through the economic valuation of natural resources. Such pricing could help businesses and investors to take the long term sustainability costs of business decisions related to natural resources into account.
12. Participants underscored that energy efficiency in transport as well as promising and viable alternatives to fossil fuels like renewable electricity; sustainable biomass and hydrogen are being developed to scale through large investments. Participants also recognized a need for further maturing and testing of the technologies and developing global standards along the value chain of transport in order to fully unleash the business potential for sustainable transport and make new technologies cost-effective and competitive with fossil based alternatives.
13. Participants also stressed that financing green growth will have to come from a wide range of sources, public and private, national and international. Special attention must be given to the link between public and private capital and the analysis and evaluation in a standardized way and at a global scale of risks related to large scale green investment projects. Unlocking private investments while providing political decision makers with flexibility is key. This could include new mechanisms to reduce and redistribute the costs, risks and benefits and risks connected to large investment projects in renewables, infrastructure and energy efficiency.

**The way ahead:**

14. We - the Governments of Denmark, the Republic of Korea and Mexico - reconfirm our readiness to take this Chairman's Summary as well as conclusions and recommendations emerging from the discussed initiatives forward to other high-level political processes and fora such as the UNFCCC COP17 in Durban, South Africa, the Clean Energy Ministerial 2012 in London, Rio+20 in Brazil and the G20. We urge partners and participants at the Forum to do the same. We pledge to continue our collaborative efforts and act together to generate strong, sustainable and balanced green growth.
15. We recognize that catalyzing green growth requires deep investment in long term change and we are confident that the Forum is positioned to provide a robust, dynamic platform for that purpose, ensuring continuity through its ongoing engagement with active partnerships for change and its formative relationships with other key global initiatives and processes.
16. We urge other governments and corporations to join our effort to construct a more conducive international enabling environment for green growth through the creation of effective cooperative initiatives, institutions and mechanisms such as those discussed in our Forum. We encourage policymakers and business leaders around the world to support, replicate and scale these initiatives and others like them, as they represent the building blocks to achieve a new architecture of international economic and environmental cooperation able to complement national policy frameworks and international treaties by helping to accelerate their implementation and magnify their impact on market behaviour.
17. Today, participants in the Global Green Growth Forum discussed the following areas for specific public-private action:
  - Energy Efficiency
  - Renewable Energy
  - Test Markets for Electric Vehicles
  - Bridging the Fuel Gap in the Transport Sector
  - Sustainable Biofuels for Aviation
  - Green Public Procurement
  - Water Resources
  - Financing Green Growth
18. We will revisit these initiatives and progress in achieving their aims and targets at the Global Green Growth Forum 2012, which will be held in Denmark on 9-10 October 2012.

# RECOMMENDATIONS FROM 3GF WORKING SESSIONS

### Executive Summary

The Global Green Growth Forum - 3GF - was held on 11-12 October 2011 in Copenhagen. The Forum was attended by UN Secretary-General Ban Ki-Moon, OECD Secretary-General Angel Gurría, Prime Minister of Denmark, Helle Thorning-Schmidt, Prime Minister of Ethiopia, Meles Zenawi, Prime Minister of Kenya, Raila Odinga, H.R.H. the Crown Prince of Denmark, 50 global corporate leaders, 12 ministers and deputy ministers, five leaders of UN organizations, leading civil society organizations and world leading experts. The 200 participants came from 27 countries across five continents.

Energy, transport, trade, finance, water and public procurement - key elements of a green industrial revolution were at the centre of the two day event. In discussing how to accelerate the pace and scale of a green transition, delegates highlighted a number of cross-cutting issues that stand out as key factors for creating an enabling environment - and for seizing the growth opportunities embedded in the green transition. These include: i) the need for international standards on products and processes and industry benchmarking; ii) leveraging private financing as an essential vehicle to a green transition; iii) the need for national and global regulation and policy plans to drive business aspirations in pursuing the green path and enhancing investments by managing risks; and iv) the importance of global collaborative action across sectors, including engaging developing countries and emerging economies by strengthening local capacities.

Public-private partnerships were regarded critical in facilitating the abovementioned elements.

Concrete public-private partnerships and initiatives were brought to the table, explored and advanced with participants committing to translate gained insights into their own activities going forward. Specific action and recommendations came from the strategy and panel sessions of the Forum in following areas:

- An **initiative on Sustainable Biofuels for Aviation** was launched to facilitate an international public-private collaborative plan and platform for actions to develop the required sustainable biofuel production capacity for aviation. Delegates identified five areas of action needed to take biofuels for aviation from small to large commercial scale.
- An **initiative promoting a Sustainable Energy Trade Agreement** was launched. The initiative aims at enabling international markets for a rapid scale-up in innovation, diffusion, and use of goods, services and technologies in the non-fossil fuel energy sector. Delegates made specific recommendations to the area of green international trade specifically related to standard-setting, tariffs and non-tariff measures, subsidies and government procurement.
- The first steps were taken towards an **international initiative on Green Public Procurement**, which builds on best practice, provides technical expertise and brokers global collaboration in the area.
- Delegates discussed options for an **international initiative on Electric Vehicle Test Markets** to develop and implement a strategy with framework conditions for an Electric Vehicle test market that addresses issues related to enhancing business and consumer incentives and recharging infrastructure.
- Delegates supported the **initiative of the Water Resources Group (WRG)**, and made recommendations to additional engagements by the Group in new countries / states. Delegates agreed that water is a critical but scarce resource for enabling growth, which has received insufficient attention thus far.
- Delegates recommended ways for creating better Public Private Partnerships on green financing. Delegates committed to collaborating closely with the UK government **Capital Markets Climate Initiative** platform, and to communicating lessons learned from processes such as **South African Renewables Initiative** into the Rio +20 process, particularly around renewable energy.
- On energy efficiency and renewable energy, delegates discussed ways to further on-going work in the Clean Energy Ministerial, the International Energy Agency, and International Partnership for Energy Efficiency Cooperation in advancing energy efficiency policies.





## Energy Efficiency

Participants noted the economic growth potential of increased energy efficiency as well as the work of the Clean Energy Ministerial (CEM), the International Energy Agency (IEA), and the International Partnership for Energy Efficiency Cooperation (IPEEC) in advancing energy efficiency policies, including:

- *Smart regulation for energy efficiency in the utility sector:* For example, the IEA/CEM PEPDEE initiative encourages identification and adoption of advanced regulations that incent energy providers to profit from efficiency services in addition to conventional energy supply. Smart regulation should drive efficiency aspirations, include provisions for regular revisions as needed, and encourage innovation, thus spurring investments, growth and jobs. Similarly, the CEM/IEA International Smart Grid Action Network (ISGAN) focuses on helping governments to adopt policies and intelligently invest in advanced smart grid technologies that enable broad adoption of efficiency.
- *Appliances and equipment efficiency:* Participants emphasized the importance of creating open source databases and systems that allow countries to benchmark their appliance efficiency levels against one another using harmonized (or at least comparable) test procedures. They also suggested public-private partnerships to develop advanced IT solutions that would enable consumers to identify and purchase devices that offer them the lowest total cost of ownership, including upfront costs and lifecycle energy consumption. They further underscored the importance of minimum standards for developing countries, in particular, to ensure that their consumers and economies do not suffer from inefficient appliances. The Top Runner program in Japan was referenced as a promising model, but it was noted that better data would be helpful to fully understand the program's impact. Finally, participants noted the IPEEC/CEM Super-efficient Equipment and Appliances Deployment (SEAD) initiative that works to accelerate global efficiency progress for energy consuming devices, addressing policy options representing roughly one third of global abatement potential. SEAD works to provide governments a common technical foundation to implement better minimum standards, labels, incentives, and procurement policies and practices.
- *Building and Industrial efficiency - driving the implementation of standards:* Accelerating standard setting requires significant capacity building for local agencies, as well as specialized forms of credit. Participants encouraged IPEEC to come forward with a specific proposal for industry benchmarking. Attention should be given to avoid that benchmarking / standard setting constrained innovation to more incremental progress, thereby potentially getting in the way of more disruptive, transformational growth potential. The IPEEC/CEM Global Superior Energy Performance (GSEP) includes work to help governments exchange best practice approaches to energy management in both the building and industrial sectors.
- *Public-private partnerships on standard setting:* Participants suggested two kinds of partnerships; One consisting of the most progressive countries and corporations in standard-setting that could inspire and show best practice to others, and one consisting of local level actors with a focus on concrete technologies. Participants identified four criteria for selecting new technologies to be advanced in a public-private effort and to spur green growth: Scalability; cross national scope; attractive net present value scenario; possibilities for technology transfer. Examples of technologies fitting the criteria could be: Combined heat and power, water infrastructure, electric motors and efficiency in production.

### Core participants

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# RECOMMENDATIONS FROM 3GF WORKING SESSIONS

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## Renewable Energy

Delegates discussed means to scale up the use of renewable energy and its growth potential. They agreed on the following points:

- *A flexible grid system:* The development of a flexible grid system and an infrastructure that allows for future development in variable renewable energy technologies are key to a sustainable integration. National governments should outline long term road maps for renewable energy infrastructure including off-grid solutions to accommodate future changes in renewable energy technology.
- *Energy storage:* Long and short term storage solutions for the variable types of renewable energy are urgently needed. Short term storage involves storage in private homes, where renewable energy produced during the summer by e.g. solar panels can be stored for the winter season.
- *Investments and risk management:* To ensure investments and manage risks, the public and private sector need to develop short, medium and long term goals for investors through a smart grid platform or policy plan.
- *Global standards:* International standards on renewable energy are needed to enhance renewable energy to create stability for investors and economies of scale. It should be explored to what extent public-private partnerships could be part of the development of global standards.
- *Transparency and information sharing:* Governments, corporations and other stakeholders need to share information and experiences on renewable energy, on energy transmission systems and on distribution systems. Climate partnerships between institutional investors and large actors on the demand side should be developed in order to enhance knowledge and information sharing.
- *Policies on carbon prices:* Global policies on carbon prices are needed, but these must be complemented by tailored local policies and standards.
- *Long-term energy policy:* National governments should develop a long term energy policy, including i) a strategy for how to ensure access and storage through i.a. a road map for the development of the necessary infrastructure; definition of public-private responsibilities and incentives to maintain infrastructure ii) a strategy for how to ensure affordable costs of renewable energy iii) considerations of co-dependency of countries iv) a strategy for creating an enabling environment for innovation and industrialization v) a strategy for informing and motivating public/private consumers.
- *Innovation and industrialization:* Governments must ensure an enabling environment for innovation and industrialization of renewable energy. Innovative initiatives on renewable energy, such as marine-based renewable energy and storage solutions for variable types of renewable energy should be further explored by public-private efforts.
- *Capacity building:* To ensure that renewable energy reaches a larger part of the population, it is important to do research on public acceptance and to enhance public knowledge on the benefits of renewable energy.

### Core participants

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## Financing Green Growth

In order for the green transition to take place at speed and scale, both public and private financing for green growth is essential and must be given priority.

Delegates recommended that better Public-Private Partnerships are created by:

- *Increasing policy knowledge (including knowledge on private sector needs):* Delegates committed to collaborating closely with the UK government's Capital Markets Climate Initiative (CMCI) platform, to share best practices on policy and market based solutions and in terms of instant collaboration between multilateral development banks.
- *Creating risk mitigation tools that address the needs of the private sector:* The public sector could and should play a role in minimizing risk and making it more attractive for the private sector to enter the market for renewable energy and energy efficiency. Delegates noted that price regulation was a good and necessary mechanism, but that there also was a need for regulation and public financing structures. The UK-led Green Investment Bank was seen as a promising new institutional arrangement for prioritizing investment on a national basis. Such institutions, created as public-private partnerships, allow a focus on risk-adjusted returns, wherein the public sector can take on the types of risks (e.g., policy, regulatory, pricing) which scares off the private sector. Another promising concept is the financing mechanism of challenge funds. So far, only few pension funds have pursued this path, however.

Delegates highlighted the special challenges of clean energy finance in developing countries, where building capacity in local investment and commercial banks was crucial.

Delegates committed to communicating lessons learned from public-private partnerships such as South African Renewables Initiative (SARI) into the Rio +20 process, particularly around renewable energy.

### Core participants

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# RECOMMENDATIONS FROM 3GF WORKING SESSIONS



## Trade and International Markets

The Sustainable Energy Trade Agreement Initiatives (SETA) aims at enabling the rapid scale up in innovation, diffusion, and use of goods, services, and technologies in the non-fossil fuel energy sector and thus potentially catalyzing green growth. SETA was proposed by three leading think tanks: the Global Green Growth Institute (GGGI), the International Centre for Trade and Sustainable Development (ICTSD) and the Peterson Institute for International Economics.

Several participants highlighted the pressing need to ensure that policy frameworks on trade support the enormous need for scale in renewable energies. The initiative was supported by many participants, including the Government of Denmark, Mexico and delegates from the Republic of Korea, which will assist in promoting dialogue on the initiative internationally.

In addition, delegates made the following recommendations:

- **Standards:** International standards on both products and processes are needed to secure a well-functioning international market for green energy goods and services. Design of standards must follow non-discriminatory, science-based norms, such as those agreed in the WTO's Technical Barriers to Trade (TBT) Agreement. It is critical to ensure governance of non-statutory standards, whether developed and implemented by sub-national, non-governmental initiatives or business entities.
- **Tariffs and Non-Tariff Measures:** Removal of tariffs and non-tariff barriers for wind, solar, clean coal, and efficient lighting in countries with high greenhouse gas emissions would result in considerable trade gains. While tariffs may be less of a problem compared to non-tariff measures, they should not be neglected. Even binding the present levels of tariffs on clean energy goods would serve to increase predictability of market access for exporters.
- **Subsidies:** Subsidies to production of fossil fuels should be better understood and tackled. Developed countries are heavily subsidizing agricultural production, while developing countries are heavily subsidizing fossil fuels. Both are damaging the transition towards green growth, because they distort price signals.

Delegates noted that it is important that both developed and developing countries are part of any multilateral or plurilateral undertaking to tackle global problems. To be viable, it is also important that agreements allow for specific national considerations.

### *Core participants*

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## Sustainable transport

Delegates discussed specific private sector initiatives with growth potentials aimed at fostering the development of sustainable transport systems, and agreed on the following points:

- *Proposal to agree on regional/national and/or sector demonstration markets for technologies, with large-scale players as the primary driver and government mandates reducing perceived risks.* The Global Fuel Economy Initiative (GFEI) is a constructive example of an initiative that is focused on a particular goal – global stabilization of emissions from the car fleet by 2050 through the use of existing, cost-efficient technologies – as well as an initiative that promotes public-private partnerships. However, improving efficiency of internal combustion engines is not sufficient to bridge the widening fuel gap. In order to quickly scale up new fuel technologies, the whole value chain must be captured and even reassembled via public-private partnerships. One way to bring alternative, low carbon fuels and modes to scale, is through regional / national and / or sector-wide demonstration markets for technologies, as well as private sector consortia that capture a great deal of market share. Multiple large consumer groups can potentially secure the necessary demand to move to scale.
- *Call to harmonize cost and climate impact metrics to improve available information and reduce risk.* Public-private knowledge sharing on metrics and information collecting represents a solid first step toward reducing uncertainty related to the impacts of changing the transport system, including costs – something that can be pursued immediately with near-term results.
- *Catalyzed new consensus on future sustainable transport solutions.* Future sustainable transportation solutions will need to be inclusive of a range of technologies for various industries and vehicles (light duty vehicles, shipping, aviation, etc.) Thus, businesses should work among themselves to avoid ‘zero-sum’ engagement with governments for support and investment.
- *Need for risk mitigation.* General agreements that the main barrier to scale is not the technologies themselves, but the preponderance of perceived risk to investing in new technologies. Potential solutions include public-private partnership on the creation of new green investment asset classes and insurance or other financial instruments that reduces risk.

### Core participants

**Shai Agassi** / CEO / Better Place / **E. H. “Ned” Allen** / Senior Fellow and Chief Scientist / Lockheed Martin / **Marcus Chee** / Executive Director / Energy Council of Malaysia / **Mads Christensen** / Executive Director for the Nordic Region / Greenpeace Nordic / **Zhongyi Deng** / Vice President / Shenzhen BAK Battery Co., Ltd. / **Robert T. Do** / CEO / Solena / **Richard Gledhill** / Head / Climate Change and Carbon Market Services / PWC / **Duleep Gopalakrishnan** / Managing Director / H-D Systems / **Ray O. Johnson** / Senior Vice President, Chief Technical Officer / Lockheed Martin / **Sae Hoon Kim** / Principal Engineer / Hyundai Motors / **Mads Madsen** / Head of Corporate Positioning / Novozymes / **Nader Mousavizadeh** / CEO / Oxford Analytica / **Søren Stig Nielsen** / Senior Director / Maersk Line / Maersk / **Mark Radka** / Chief of the Energy Branch / Division of Technology, Industry and Economics / United Nations Environment Programme / **Michael Replogle** / Global Policy Director and Founder / Institute for Transportation and Development Policy / **Henrik Topsøe** / CEO / Haldor Topsøe / **Paul Verhoef** / Head of Unit for Research and Innovative Transport Systems DG MOVE / European Commission / **Yuri Alexei Carreno Villagomez** / Intermediate Distillates Trading and Supply Assistant Director / Petróleos Mexicanos (PEMEX) / **Charles Wang** / CEO / GreenTech Automotives / **Sheila Watson** / Executive Secretary / Global Fuel Economy Initiative (GFEI) / **Seungwook Yang** / Managing Director / Hyundai Motors / **Susanna Zammataro** / Deputy Director and Head of Environment / International Road Federation.

### Contact person for initiative

**Sheila Watson** / Director of Environment / FIA Foundation and Executive Secretary / GFEI [s.watson@fiafoundation.org](mailto:s.watson@fiafoundation.org)

# RECOMMENDATIONS FROM 3GF WORKING SESSIONS



## Green Public Procurement

Delegates agreed that green public procurement is a green growth strategy that is doable and practical. Procurement is an activity that all governments undertake and where scaling is already inherent - governments spend 13% to 20% of GDP on procurement. Green Public Procurement is hence a practical and compelling strategy for driving the transition to green growth. In addition, delegates made the following conclusions:

- Green public procurement needs to serve as a vehicle for sustainable and equitable development in low income countries and fragile states. Countries embarking on green public procurement need to build on existing intelligence and experience and work on 'localizing' them in a way that interlock with their economic development goals, while addressing environmental and social priorities.
- Delegates agreed that an international initiative on Green Public Procurement that builds on best practice, provides technical expertise, and brokers cross-country collaboration, will contribute to global green growth.
- The International Institute for Sustainable Development (IISD) will take lead in developing options on the organization, governance and work programme of an international initiative on Green Public Procurement. IISD will work in collaboration with the Confederation of Indian Industry; International Road Federation; Global Energy Basel and Electronic Product Environmental Assessment Tool (EPEAT), who will serve as founding partners.
- The Danish Ministry for the Environment confirmed its interest in a coordinated international initiative on Sustainable Public Procurement and its willingness to engage in further dialogue with the IISD on the basis of the outcome of the 3GF meeting. Similarly, the US Department of Energy, Mexico and the World Business Council for Sustainable Development (WBCSD) were interested to have further discussions with IISD regarding the initiative.

### *Core participants*

**Peter Boyd** / Director of Operations / Carbon War Room / **Rick Duke** / Deputy Assistant Secretary for Climate Policy / Department of Energy / Government of USA / **Paul Ekins** / Professor / Energy and Environment Policy / Energy Institute / University College of London / **Hans Enocson** / National Executive for the Nordic Countries / General Electric / **Sachin Joshi** / Director / Centre for Excellence on Sustainable Development / Confederation of Indian Industry / **Jens Laustsen** / Senior Energy Policy Analyst / Rockwool / **Henry Li** / Senior Director / BYD Group / **Claude Martin** / Board Member of IISD / International Institute for Sustainable Development (IISD) / **Niels-Anders Nielsen** / Head of Centre for Green Transport / Danish Transport Authority / **Sarah O'Brien** / Communications Director / Electronic Product Environmental Assessment Tool (EPEAT) / **Robson Oliveira** / President / Green Economy Rio+20 / **Graham Pugh** / Team Leader / International Climate Activities / Department of Energy / Government of USA / **Camilla Toulmin** / Director / International Institute for Environment and Development (IIED) / **Bui Cach Tuyen** / Deputy Minister for Natural Resources and the Environment / Government of the Socialist Republic of Vietnam / **Simon Upton** / Director / Environment Directorate / Organisation for Economic Co-operation and Development (OECD) / **Peter Paul Van de Wijs** / Managing Director / Communications and Business Role Focus Area / World Business Council for Sustainable Development (WBCSD) / **Eelco van Heel** / CEO / Rockwool / **Daniel Wiener** / CEO / Global Energy Basel / **Susanna Zammataro** / Deputy Director and Head of Environment / International Road Federation.

### *Contact person for initiative*

**Oshani Perera** / Programme Officer / International Institute for Sustainable Development (IISD) / [operera@iisd.org](mailto:operera@iisd.org)



## Sustainable Biofuels for Civil Aviation

An initiative on Sustainable Biofuels for Aviation (SBFA) was launched by the Air Transport Action Group (ATAG), DI Bioenergy, Copenhagen Cleantech Cluster, and Sustainable Biofuels Network with the main objective of facilitating an international public-private collaborative plan and platform for action, a Roadmap 2050, to develop the required sustainable biofuels production capacity for aviation. The SBFA strategy group will take the initiative forward including a follow-up meeting in Mexico in spring 2012 to progress the development of the policy agenda in preparation for Rio+20 and the G20 meetings later in the year.

The Road Map 2050 will include the following areas of action, that were recommended by 3GF delegates as areas which can take biofuels for aviation from small to large commercial scale and thereby support the transition to green growth:

- Harmonizing regulatory environments to ensure that aviation is not materially disadvantaged over other consumers of biofuels (currently, most regulation and policy incentives favor biodiesel over aviation biofuels). Harmonizing sustainability criteria globally across jurisdictions to ensure that sustainably-produced biofuels uplifted in one country is recognized as such at the destination.
- Unlocking access to capital for plant and production facilities (there is currently some \$28 trillion in pension funds worldwide, a new asset class for all green technology investments may be a wise way to utilize these funds).
- Establishing public-private partnerships to narrow the risk of scale up via innovative technology risk insurance, loan guarantees or other financial products that can accelerate the availability of capital or reduce the cost of capital to drive products to scale.
- Investing in further research and development in finding new feedstock, increasing feedstock yield and production processes. Strengthening information exchange at the global and local levels between governments, private sector and the research community on the availability and maturity of different streams of feedstock.
- Collaborating across sectors, investors, companies, including partnerships to ensure high sustainability standards and to provide incentives for airlines to use biofuels from an early stage.

The aviation industry has developed a set of ambitious targets aimed at limiting its climate impact, while enabling it to continue to provide a key vehicle for economic growth. The targets include: improving fleet fuel efficiency by 1.5 per cent per year until 2020; capping net aviation emissions from 2020; and most ambitiously halving aviation carbon emissions by 2050 compared to 2005. Roadmap 2050 is a milestone in these undertakings with special focus on a rapid transition from fossil fuels to a sustainable biofuels based industry.

### *Core participants*

**Robert Arendal** / Copenhagen Goodwill Ambassador / Sustainable Biofuels Network / **Craig Binetti** / Nutrition & Health President / DuPont / **Robert T. Do** / CEO / Solena / **Haldane Dodd** / Head of Communications / Air Transport Action Group (ATAG) / **Niels Elers Koch** / IUFRO President, Director General, Prof. dr., Danish Centre for Forest, Landscape and Planning / University of Copenhagen / **Frederic Eychenne** / New Energies Programme Manager / Airbus / **Claus Felby** / Professor, Faculty of Science / University of Copenhagen / **Laurel Harmon** / Vice President / Government Relations / LanzaTech / **Oliver R. Inderwildi** / Professor / Smith School of Enterprise and the Environment / University of Oxford / **Flemming J. Jensen** / Executive Vice President / Scandinavian Airlines (SAS) / **Kim Knudsen** / Vice President / Haldor Topsøe / **Jim Lane** / Editor & Publisher / Biofuels Digest / Chairman / American Biofuels Council / **Soo Ken Lee** / Managing Vice President / Korean Air / **Cynthia Menendez** / Refined Products Logistics Supervisor / Petróleos Mexicanos (PEMEX) / **Richard Mills** / Managing Director / Boeing / **Charles Nielsen** / Director Research and Development / DONG Energy / **Martin Porsgaard** / Director / Sustainability and Environment / Scandinavian Airlines (SAS) / **Per Regnarsson** / Managing Partner, CEO / Clean World Capital / **Doris Schroecker** / Policy Officer / Directorate General for Energy and Transport / European Commission / **Rajeev Sharma** / President / Absi Corporation / **Paul Steele** / Executive Director / Air Transport Action Group (ATAG) / **Adam Tomasek** / Managing Director / Borneo and Sumatra / World Wide Fund for Nature (WWF) / **Kristine van het Erve Grunnet** / Head of Secretariat / Danish Bioenergy Association / Confederation of Danish Industry.

### *Contact person for initiative*

**Martin Porsgaard** / Director / Sustainability and Environment / Scandinavian Airlines (SAS) / Martin.Porsgaard@sas.dk

**Robert Arendal** / Copenhagen Goodwill Ambassador / Sustainable Biofuels Network / rarendal@raa.lu

**Kristine van het Erve Grunnet** / Head of Secretariat / Danish Bioenergy Association / Confederation of Danish Industry / keg@di.dk

# RECOMMENDATIONS FROM 3GF WORKING SESSIONS



## Electric Vehicles Test Markets

Delegates recommended that the following elements must be in place for developing a sustainable full scale market for Electric Vehicles and thereby catalyzing the green growth potential of the global electrical vehicle industry:

- *New business models and policy measures to enhance consumers' economic and convenience incentives for purchasing electric vehicles.* While these are necessary in the near-term, they must become self-sustaining over time (e.g. by 2020). However, given their public benefits (no local emissions, low noise and potentially very low CO<sub>2</sub>), there is a case for different on-going public support. A long term solution could be a sliding scale CO<sub>2</sub> tax/rebate, that can be revenue neutral and provide appropriate market signals over the long term. Public and private fleet customers should be first movers in the market, the life cycle costs of EVs should be better communicated and convenience incentives like free parking in cities, access to bus lanes etc. are essential.
- *Measures to complete and secure an intelligent, open and interoperable public recharging infrastructure for several charging standards, for example fast charge, battery swap and slow charge along major transport corridors and in larger cities, also facilitating charging near storey dwellings.* This is an area where public-private partnerships are needed, whereby the government plays a strong role in coordinating planning and setting standards but many of the key investments are made by the private sector (e.g. third party providers).

These elements can be secured by strong public-private partnerships combined with a holistic approach to stakeholders involved. The Danish government is committed to take recommendations into account in the development of a national strategy for promoting energy efficient vehicles, including plug-in hybrid electric vehicles, EVs etc., which will inter alia include infrastructure. The Korean government is also committed to take recommendations into account through diverse policy mixes including subsidies and tax incentives. The Mexican Government will also take recommendations into account for the development of its Low Emissions Development Strategy.

The Danish experiences with developing such national strategy will be shared and discussed at 3GF 2012 with the purpose of passing on lessons learned and best practices to other national governments, who wish to pursue a similar strategy, and of discussing how national test markets can best be brought to full scale at an international level.

### *Core participants*

**Lærke Flader** / Managing Director / Danish EV Alliance / **Lew Fulton** / Senior Transport Energy Specialist / International Energy Agency (IEA) / **Thomas Færgeman** / Director / CONCITO / **Seong-Cheol Kang** / Senior Fellow / Global Green Growth Institute (GGGI) / **Niels-Anders Nielsen** / Head of Centre for Green Transport / Danish Transport Authority / **Thomas Orsini** / EV Business Development Director / Renault / **Joe Paluska** / Vice President / Global Communications & Policy / Better Place / **Knud Pedersen** / Vice President / DONG Energy / **Johan Peeters** / Vice President / Global Sales and Marketing / ABB / **Michael Rask** / Senior Policy Advisor / Danish Energy Agency / **Charles Wang** / CEO / GreenTech Automotives / **Lim Tae Won** / Director / Fuel Cell Vehicle Group / Hyundai Motors / **Jacqueline Wong** / Office of Policy & International Affairs / Department of Energy / Government of USA / **Deng Zhongyi** / Vice President & CTO / Shenzhen BAK Battery Co., Ltd.

### Contact person for initiative

**Lew Fulton** / Senior Transport Energy Specialist / International Energy Agency (IEA) / Lew.FULTON@iea.org  
**Thomas Færgeman** / Director / CONCITO / tf@concito.dk





## Water

Delegates supported the initiative of the Water Resources Group (WRG), and made recommendations to additional engagements by the group in new countries / states. Delegates agreed that water is a critical but scarce resource for enabling growth, which has received insufficient attention thus far. In addition, delegates made the following conclusions:

- *Increased awareness and attention:* Water is an essential natural resource in ensuring sustainable growth, including in emerging economies and developing countries. The economic and social value of stable and sufficient water resources is far greater than currently reflected in our individual and collective decisions. Ensuring appropriate use of limited water resources in the green economy of the future will require that water gets the political and economic attention that it needs. This requires joint efforts.
- *Comprehensive fact base for decision-making:* A comprehensive fact base covering hydrological, economic and social data is required to create a common ground and enable a more productive and inclusive process in developing solutions and making decisions. Currently, the data required is often missing or scattered at the national or local levels.
- *Integrated approach:* There is a need to secure a broad commitment to address the water scarcity issue at all levels of our society, including the public sector, the private sector, development and multilateral agencies, the financial institutions and the civil society. To mirror this integrated approach institutionally, there is a need for an integrated cross-ministerial planning and decision making.
- *Fundamental transformation of business:* Private sector will need to shift focus to more water resource efficiency. There is a need for new affordable technologies to be implemented on the demand side.
- *New models and approaches:* Additional Water Resources Group engagements in new countries / states were recommended by delegates. The launch of new Water Resources Group entity at Davos 2012 may add hereto.

### *Core participants*

**H.E. Mohammad Al-Najjar** / Minister for Water and Irrigation / Hashemite Kingdom of Jordan / **Jens Brandt Bering** / Business Unit Director / Water & Utilities / Niras / **Carsten Bjerg** / CEO / Group President / Grundfos / **Rina Bohle Zeller** / Policy Specialist / Vestas Wind Systems / **Peter Brabeck-Letmathe** / Chairman of the Board / Chairman of the WRG / Nestlé / **Stig Peter Christensen** / Senior R&D Director / COWI / **Gil Forer** / Global Cleantech Leader / Ernst & Young / **Christian Friis Bach** / Minister for Development Cooperation / Denmark / **Hans-Martin Friis Møller** / Development Director Water & Energy / Grontmij A/S / **Nahm Chung Jung** / Vice President / K-Water / **Asger Kej** / CEO / Danish Hydraulic Institute (DHI) / **Woojin Lee** / Associate Professor / Korea Advanced Institute of Science and Technology (KAIST) / **Satya D. Murty** / Principal Secretary to Government, Water Resource Department / Government of Karnataka, Government of India / **Jakob Møller Nielsen** / Head of Department / Danish Nature Agency / **Niels Axel Nielsen** / Senior Vice President / Private and Public Sectors Services / Technical University of Denmark (DTU) / **Usha Rao-Monari** / Global Head / Water infrastructure & natural resources / Global Infrastructure and Natural Resources Department / International Finance Corporation (IFC) / **Dominic Waughray** / Senior Director, Head of Environmental Initiatives / World Economic Forum (WEF).

### *Contact person for initiative*

**Dominic Waughray** / Senior Director, Head of Environmental Initiatives / World Economic Forum (WEF) / [dominic.waughray@weforum.org](mailto:dominic.waughray@weforum.org).



# BUILDING A COALITION FOR GREEN INTERNATIONAL MARKETS



**Mr. Ricardo Meléndez-Ortiz**  
Chief Executive / International  
Centre for Trade and Sustainable  
Development (ICTSD)

Mr. Ricardo Meléndez-Ortiz is the Chief Executive of the International Centre for Trade and Sustainable Development (ICTSD), an independent, non-profit organization which aims to influence and offer solutions on global trade. At 3GF 2011, ICTSD launched the Sustainable Energy Trade Agreement (SETA) initiative, together with the Global Green Growth Institute (GGGI) and Peterson Institute for International Economics. The initiative aims to establish international cooperation and to address climate change, energy security and the transition to a low-carbon economy.

## **The benefits of a sustainable energy trade agreement to green growth**

Mr. Meléndez-Ortiz believes SETA will help ensure robust markets for sustainable energy-related goods and services by tackling trade-related barriers and providing a global framework for sustainable energy trade.

"Green growth has to compete with traditional, business as usual pathways built on polluting technologies and on economic design, which fail to internalize environmental costs. Energy demand is expected to continue to grow, whilst 1.6 billion people on the planet have no access yet to modern forms of energy. Enabling frameworks at an international

## **"3GF2011 ENABLED ICTSD AND ITS PARTNERS TO GET THE SETA MESSAGE ACROSS TO KEY GOVERNMENTS, INTER-GOVERNMENTAL ACTORS AND THE PRIVATE SECTOR"**

level, with the widest possible participation and a common set of disciplines, are necessary to speed and scale up further introduction of renewable forms of energy and energy efficiency," he says.

## **Public-private partnerships are essential for SETA**

"The momentum to create SETA and to ensure that disciplines are adhered to, will need to come from a public-private collaboration," says Mr. Meléndez-Ortiz. He admits that various actors will need to become actively involved, notably trade, environment and energy policy-makers. And that the private sector, including sustainable power producers, sustainable energy and energy-efficient equipment producers and traders in both developed and developing economies will play a crucial role.

## **International cooperation and political will needed**

Ricardo Meléndez-Ortiz thinks for SETA to become a realistic viability then international cooperation, political will and the concerns of participating parties will need to be addressed. "A SETA could be a single agreement, specific to promotion of renewable energies and energy efficiency. In this form, it may be conceived as a plurilateral

trade agreement or an energy agreement specifically addressing trade and investment dimensions," he says. "Obviously there will be challenges ahead. One of them could be (despite the obvious benefits) reluctance among certain countries to join in. The SETA in particular will need to be not only about securing functioning and efficient markets but also addressing trade-related sustainable development concerns and priorities of countries at diverse levels of development," he adds.

## **Getting the message across at 3GF**

"3GF2011 enabled ICTSD and its partners to get the SETA message across to key governments, inter-governmental actors and the private sector. The Forum facilitated the building of new partnerships and ventures, in particular with world-relevant business, investment and finance players," says Mr. Meléndez-Ortiz. "One concrete result of this year's 3GF is the commitment of Denmark, Korea and Mexico to take the conclusions and recommendations forward to high-level international processes, such as COP17/CMP7 in Durban and next year's Clean Energy Ministerial meeting in London and Rio+20 in Brazil, and the G20 process," he adds.

## **3GF 2012**

In Mr. Meléndez-Ortiz's opinion, 3GF private-sector participants could provide a 'coalition' base that could talk to key policy makers in their regions on SETA and convey critical inputs and feedback to ICTSD and partners to define a meaningful roadmap for a SETA agreement. "This would further help utilize 3GF forums to reach out to policy makers and private sector actors to build consensus behind the SETA initiative," he concludes.

Master of Ceremony: **Aimée Christensen** / Partner / World Climate Ltd / CEO / Christensen Global Strategies

08:00 **REGISTRATION, COFFEE** (*Moltkes Palæ*)

09:00 **Opening Plenary Session** - open to the press  
 Welcome address by **H.R.H. The Crown Prince of Denmark**  
 Opening statement by **Ms. Helle Thorning-Schmidt** / Prime Minister / Denmark  
 Opening remarks by **Ms. Young Sook Yoo** / Minister of Environment / Republic of Korea  
 Opening remarks by **Mr. Juan Rafael Elvira Quesada** / Minister of Environment / Mexico

09:30 **Plenary debate I: Building an Enabling Environment to Catalyze Green Growth** - open to the press



Green growth is increasingly featuring on the policy agenda and in corporate board rooms. How central is green growth to countries' and businesses' economic prospects, what are the barriers to realising the opportunities, and how can business work best with governments in overcoming these barriers?

Moderator:  
**Ms. Rachel Kyte**  
 Vice President / World Bank

Panelists:  
**Mr. Raila Odinga** / Prime Minister / Kenya  
**Mr. Angel Gurría** / Secretary-General / OECD  
**Ms. Connie Hedegaard** / Commissioner / European Commission  
**Mr. Niels B. Christiansen** / CEO / Danfoss

10:45 **Key note on Green Growth**

**Mr. Ban Ki-moon** / Secretary-General / United Nations

11:05 **COFFEE BREAK**

11:30 **Parallel strategy sessions I:**



(Six parallel sessions) Each of the 6 strategy sessions takes as its point of departure one or more concrete initiatives, offering participants the opportunity to share their knowledge and experience and gain from insights of others. Moderators will ensure a firm focus on bridging identified barriers with workable solutions, and devote particular attention to the questions of scale and pace in the transition to the green economy.

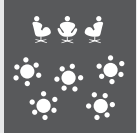
Energy & Finance	Transport
<b>Energy Efficiency</b> Facilitator: <b>Mr. Jeremy Oppenheim</b> / Director / McKinsey & Co.	<b>EV Test Markets</b> Facilitator: <b>Mr. Lew Fulton</b> / Senior Transport Energy Specialist / IEA / <b>Mr. Thomas Færgeman</b> / Director / Concito
<b>Renewable Energy</b> Facilitator: <b>Mr. Bo Diczfalusy</b> / Director / International Energy Agency	<b>Bridging the Fuel Gap in the Transport Sector</b> Facilitator: <b>Mr. Nader Mousavizadeh</b> / CEO / Oxford Analytica
<b>Financing Green Growth</b> Facilitator: <b>Mr. Jonathan Maxwell</b> / Co-Founder / Sustainable Development Capital LLP.	<b>Sustainable Biofuels for Aviation</b> Facilitator: <b>Mr. Jim Lane</b> / Chairman / American Biofuels Council

13:00 **WORKING LUNCH** (*in strategy sessions*)

13:00 **Parallel strategy sessions** (*continued*)

14:30

**BREAK**



14:45

**Parallel panel sessions I:**

**Energy**

How far are we from a major shift to green energy production, use and dissemination? And, how do we tip the balance and make sure it happens in the near future and at pace?

Moderator:  
**Mr. Jeremy Oppenheim** / Director / McKinsey & Company

Panelists:  
**Mr. Bo Diczfalusy** / Director for Sustainable Energy Policy and Technology / International Energy Agency  
**Mr. Eelco van Heel** / CEO / Rockwool  
**Ms. Joan MacNaughton** / Senior Vice President / Power and Environment Policies / Alstom  
**Dr. Urban Keussen** / Senior Vice President / E.ON  
**Mr. Nicholas Archer** / Vice President / Suzlon Energy

**Sustainable Transport**

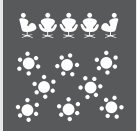
How and how quickly can we get from A to B in transport, that is: from habits and huge vested interests in the current fossil fuel based transport system to a sustainable transport system?

Moderator:  
**Mr. Nader Mousavizadeh** / CEO / Oxford Analytica

Panelists:  
**Mr. Shai Agassai** / Founder and CEO / Better Place  
**Mr. Robert T. Do** / CEO / Solena  
**Mr. Zhongyi Deng** / Vice President & CTO / Shenzhen BAK Battery Co., Ltd.  
**Mr. Charles Wang** / CEO / Green Tech Automotives

16:00

**COFFEE BREAK**



16:30

**Plenary debate II:  
National Action on Green Growth** - open to the press

National interests, policies and economies will be key to advancing global green growth in practice. What is leading national practice in advancing long term green growth planning, the right enabling environment, and the effective interactions between public and private players?

Moderator:  
**Mr. Kandeh Yumkella** / Director-General / UNIDO

Panelists:  
**Mr. Meles Zenawi** / Prime Minister / Ethiopia  
**Mr. Ole Sohn** / Minister for Business and Growth / Denmark  
**Mr. Jae-do Moon** / Deputy Minister of Knowledge Economy / Republic of Korea  
**Mr. Luciano Coutinho** / President / Brazilian Development Bank (BNDES)

18:30

**DINNER AT THE NATIONAL GALLERY OF DENMARK** (*Statens Museum for Kunst*)

Host: **Ms. Helle Thorning-Schmidt** / Prime Minister / Denmark  
Dinner speaker: **Mr. Jeremy Rifkin** / President / The Foundation on Economic Trends



08:00

**Side event: The Resource Revolution - Meeting the Needs of the Next 3 Billion Middle Class Consumers** - Open to the press

This session will share new analysis from McKinsey on the priorities to enhance economic growth, improve resource productivity and address climate change over the next 20 years.

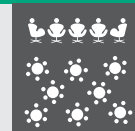
Speaker: **Mr. Jeremy Oppenheim** / Director / McKinsey & Co

08:45

**COFFEE**

09:00

**Plenary debate III: International Action on Green Growth** - Open to the press



International rules of the game, from trade and investment agreements to carbon markets and sector or product-level initiatives and standards, will shape the pace and scale of the global transition to green growth. How can inter-governmental efforts, including specific forums and processes, be complemented by private actions and public-private collaboration to best deliver the right international enabling environment?

Moderator:

**Mr. Richard Samans** / Executive Director / Global Green Growth Institute

Panelists:

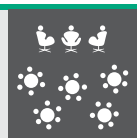
**Mr. Villy Søvndal** / Minister for Foreign Affairs / Denmark  
**Mr. Achim Steiner** / Executive Director / UNEP  
**Ms. Christiana Figueres** / Executive Secretary / UNFCCC  
**Mr. Jim Leape** / Director General / WWF International  
**Mr. Ditlev Engel** / CEO / Vestas

10:30

**COFFEE BREAK**

11:00

**Parallel panel session II: Financing Green Growth**



What new policy interventions, risk sharing models or types of public-private cooperation are needed to mobilize private capital for green growth? What steps can financiers and policymakers take to ensure that investment in green growth increases in scale and speed?

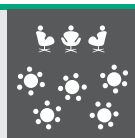
Moderator:

**Mr. Michael Liebreich** / Chief Executive / Bloomberg New Energy Finance

Panelists:

**Mr. Simon Brooks** / Vice President / European Investment Bank  
**Mr. Torben Möger Pedersen** / CEO / PensionDanmark  
**Ms. Sylvia Kreibiehl** / Vice President / Deutsche Bank  
**Mr. James Wardlaw** / Managing Director / Goldman Sachs

**Parallel panel session II: Trade/ International Markets**



How can more open markets be created while at the same time favor more sustainable trade? A contradiction in terms or a needed green new deal?

Moderator:

**Mr. Ricardo Melendez-Ortiz** / Chief Executive / International Centre for Trade and Sustainable Development

Panelists:

**Ms. Pia Olsen Dyhr** / Minister for Trade and investment / Denmark /  
**Ms. Thandi Tobias-Pokolo** / Vice Minister for Trade and Industry / South Africa, TBC  
**Mr. Simon Upton** / Director / Environment Directorate / OECD  
**Mr. Gary Clyde Hufbauer** / Reginald Jones Senior Fellow / Peterson Institute for International Economics  
**Mr. Jukka Pertola** / CEO / Siemens / Denmark

**Parallel strategy sessions II:**



Crosscutting Issues

**Water Resource Group**

Facilitator:

**Mr. Dominic Waughray** / Senior Director / World Economic Forum

**Green Public Procurement**

Facilitator:

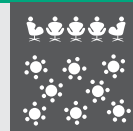
**Mr. Claude Martin** / Board Member / IISD

12:30

## LUNCH

14:00

### Plenary debate IV: Catalyzing Ambitious Green Growth: An Agenda for Collaborative Action - open to the press



Scale and speed are underlying imperatives for the global transition to a green growth pathway. Based on discussions over the two days, what are the most promising transformational opportunities, and how can policy-makers and business leaders effectively collaborate together in making them happen?

Moderator:

**Mr. Simon Zadek** / Senior Fellow / Global Green Growth Institute

Panelists:

**Mr. Martin Lidegaard** / Minister for Climate, Energy and Buildings / Denmark

**Mr. Francisco Barnés Reguriro** / President / National Institute of Ecology / Mexico

**Dr. Soogil Young** / Chairman of the Presidential Committee of Green Growth / Republic of Korea

**Mr. Peter Brabeck-Letmathe** / Chairman of the Board / Nestlé

15:30 -  
16:00

### Closing Remarks - open to the press

**Ms. Pia Olsen Dyhr** / Minister for Trade and Investment / Denmark

**Dr. Soogil Young** / Chairman of the Presidential Committee of Green Growth / Republic of Korea

**Mr. Juan Rafael Elvira Quesada** / Minister of Environment / Mexico

16:15

### 3GF Press conference



[www.globalgreengrowthforum.com](http://www.globalgreengrowthforum.com)

# THE FUTURE OF THE TRANSPORT SECTOR IS ELECTRIC



**Mr. Henry Li**  
Senior Director / BYD

The Chinese manufacturer of automobiles and rechargeable batteries, Build Your Dreams Group (BYD) is represented in the 3GF Advisory Board. Senior Director Mr. Henry Li offers his perspective on 3GF and the 2011 Forum.

## **Public-private partnerships - making green growth possible**

"Public-private partnership is the important link to make green growth possible," states Mr. Li, and explains: "I think the private sector will be the most important driving force towards green growth, as most practical technologies and businesses are in the hands of the private sector. But government policy and incentives is needed to provide clear

## **"PUBLIC-PRIVATE PARTNERSHIP IS THE IMPORTANT LINK TO MAKE GREEN GROWTH POSSIBLE"**

guidance for private sectors in terms of investment, business development and strategy setting."

## **Electric cars in the 21st century**

A good example is the market for electrical vehicles, where BYD has high ambitions for the 21st century. "For a variety of reasons, including energy security, air pollution and CO2 emissions, EV's are becoming increasingly important in many regions, especially China, Europe and the US. In 20 years from now, I believe that EVs and plug-in hybrids for bus, taxi and cars will be dominating the market," says Henry Li. "We have the ability and know-how to make this happen, but we will also need good guidance and support from governments," says Mr. Li.

## **Why 3GF?**

"We are proud to be part of 3GF," states Henry Li. BYD contributes to the Advisory Board by bringing in the perspective of a Chinese company and of an electrical vehicle manufacturer. However, BYD also takes something home: "Through participation and communicating with others, I think we learnt many things about the major trends and challenges of green growth," says Mr. Li.

He generally believes that the Global Green Growth Forum can contribute to enhancing communication between public and private actors, and help government make the needed practical and effective policies. However, he would like to see that the next Forum puts more concrete proposals for action on the table; "I am hoping that next year's 3GF will offer more practical and enforceable proposals and topics to help drive green growth forward," he concludes.



# WELCOME ADDRESS



## Welcome by HRH The Crown Prince of Denmark

Your Excellencies, Ministers, Ladies and Gentlemen,

Welcome to Copenhagen and welcome to the Global Green Growth Forum. I am extremely pleased and deeply honored to open this historic event. A lot of skill and hard work has gone into making today's meeting possible, and the impressive number of heads of governments, ministers and high-level participants present here today is a clear reflection of the fact that the Global Green Growth Forum holds enormous promise for the world at large.

We must now acknowledge that the continued economic growth created by the industrialists, businessmen and craftsmen of the past is no longer automatically sustainable.

Climate changes, scarce resources and a world population that continues to grow, makes it unsustainable to continue business as usual. In fact, according to the UN, world citizen number 7 billion will soon be born in China, and by the year 2050 we will be more than 9 billion people in the world. As a consequence, we need to work towards independence from fossil fuels, because they will eventually run out. But reducing our dependence on oil, gas and coal, requires us to develop an extensive framework for the use of alternative energy sources. To achieve this goal, the public and the private sectors must join forces to promote these alternatives. With the latest technologies at hand, it is up to the governments and businesses to convert research and development into sustainable solutions.

With the Global Green Growth Forum, Mexico, the Republic of Korea and Denmark have come together and teamed up with an extensive network of business partners and international organizations. Our common objective is to create the grounds for multiple partnerships that are capable of seizing the growth potential of a green economy.

Gathering the skills of the business community, the ambitions of civil society, the knowledge of the research community and the abilities of governments, we can find effective solutions and acquire the necessary ideas for a joint action on green growth.

Here in Moltkes Palace, all that remains of the original construction are the cellar vaults. Now, we need to make sure that the cellar vaults upon which human civilization is constructed - are maintained and preserved for future generations. We can only do this if we forge a new industrial revolution leading to a greener economy.

Ladies and Gentlemen - it fills me with great pride and with a strong hope for the future to open this inaugural meeting of the Global Green Growth Forum. May your days in Copenhagen be productive and may we all in due course come to remember this event as a key turning point towards a greener and more sustainable future.

Thank you.

**“The impressive number of heads of governments, ministers and high-level participants present here today is a clear reflection of the fact that the Global Green Growth Forum holds enormous promise for the world at large”**

**“With the Global Green Growth Forum, Mexico, South Korea and Denmark have come together and teamed up with an extensive network of business partners and international organisations. Our common objective is to create the grounds for multiple partnerships that are capable of seizing the growth potential of a green economy”**



## Opening statement by the Danish Prime Minister Ms. Helle Thorning-Schmidt

Your Royal Highness, Excellencies, Distinguished Ministers, Ladies and Gentlemen,

The Global Green Growth Forum seeks to develop new ways of making progress on some of the most critical challenges facing our world today. I am proud that Denmark is hosting this important event.

Eight days ago, my government assumed office. We have put green growth at the very top of our priorities. But we also know that our current path will not take us there. We need change. We need innovation. We need renewed cooperation, across nations and across public and private sectors.

That is why Denmark has launched this forum. It is my ambition that 3GF will become an important part of a new international architecture to address what the UN Secretary General rightly has called the imperative of the 21st century: Ensuring sustainable development.

We must save our planet in the face of scarce resources. We must lift people out of poverty. We must advance economic growth.

I would like to thank each and every one of you for attending this meeting. I would also like to warmly thank our partners in this initiative. 3GF is a truly joint effort with the Governments of Mexico and Korea as well as important actors from the private sector, international organizations and elsewhere. Thanks to all of you for this partnership.

To effectively drive the green revolution - and I call it a green revolution - we need to make progress in three areas:

Firstly, the green transition requires international leadership:

The United Nations must be the overarching framework for our efforts. Achieving progress in the global negotiations, particularly on a climate change deal, will be an important priority of this government as well. We will work for a successful outcome at the COP17 later this year. We will work for an ambitious outcome in Rio next summer. And the green agenda will of course also be a priority when Denmark takes over the EU Presidency next year.

Secondly, each nation has a responsibility to move the green transition forward at home:

This country, Denmark, has a long-standing tradition in energy efficiency and green solutions. My government will raise the bar even further. We will set the ambitious goal that our entire electricity and heat supply must come from sustainable energy in 2035. Setting this clear and long-term target is a crucial precondition for action.

Why?

Because long-term targets tell our power plants that they can safely focus on green energy. Because long-term targets tell the director of a wind turbine company that it is safe to invest in new markets. And because long-term targets tell families that it is worth their while to buy energy-saving windows or an electric car.

**“We have heard the green words before. The task now is to translate green words into green action”**

**“A green development requires substantial investments in tomorrow’s green technologies and solutions - this will not be without costs in the short run. But I firmly believe that in the long run inaction will be even more costly to all of us. So no action will cost us”**

But we also need to understand that the green development will not come by itself. Let me be extremely clear about this: We must be prepared to make tough decisions. This is not a simple win-win proposition. Some parts of our society will be affected negatively by the steps we need to take to reach these objectives. We need to make this very clear. A green development requires substantial investments in tomorrow's green technologies and solutions - this will not be without costs in the short run. But I firmly believe that in the long run inaction will be even more costly to all of us. So no action will cost us.

Thirdly, governments need to drive the green transition in much closer partnership with the private sector:

We have heard the green words before. The task now is to translate green words into green action. We need to work with our industries and businesses to find smart solutions, develop intelligent regulatory frameworks and set priorities in research and development. In short, close public-private partnership is critical to achieving our goals. Let me provide a few examples:

In Denmark we have a test centre for wind turbines in Østerild. This is a case where the government, in cooperation with the wind turbine industry and the research community, has actually created a world-class test center. We need more of that.

Another example is a new alliance between Danish Pension Funds and Danish energy companies which provides capital for the necessary investments in future renewable energy. This has helped create an off-shore wind farm that covers 400,000 households' consumption of electricity. Another good example of private-public partnership.

And on a Danish island in the Baltic Sea - Bornholm - a full scale project is being developed to establish a smart grid, building on renewables. Through this project, more than 50 per cent of the power system is covered by renewables. That is surely the way forward!

But we also need to be active abroad. And this country, Denmark, is active abroad. In Malaysia, Clean Development Mechanism-programmes have helped initiate more than 30 biogas-projects in less than 6 years. And in Bangladesh, the World Bank, local entrepreneurs and the Danish Government have helped establish new energy efficient brick producing factories - a project that both helps reduce emissions and sets new standards for working conditions, health and safety.

All over the world the key to green growth lies in cooperation and innovative thinking.

To truly realize the potential for green growth, we must make these partnerships beyond individual countries and beyond regions. There are plenty of businesses, investors, innovators and researchers around the world ready to be part of the green transition. But what we need to do is to bring them together around the same table, along with the regulators and decision-makers.

The Global Green Growth Forum offers just that: A platform for developing such international public-partnerships. We want to promote a frank and confidential dialogue between business leaders, investors and policy makers on green growth and on everything that this entails.

I challenge you to spend these two days finding concrete answers and solutions to the problems and barriers to progress in our field. My pledge to you is that the Danish Government, along with our partners, will work tirelessly to ensure that the ideas and recommendations from 3GF are carried forward: in the United Nations, in the G20 and elsewhere.

And also, we know that we'll meet again. And we even know where and when. I am happy to announce that the next Global Green Growth Forum will take place the same time next year.

I wish you all a fruitful and productive conversation over the coming days!

Thank you.



**“All over the world the key to green growth lies in cooperation and innovative thinking”**

**“The Global Green Growth Forum offers just that: A platform for developing such international public-partnerships. We want to promote a frank and confidential dialogue between business leaders, investors and policy makers on green growth and on everything that this entails.”**

## OPENING REMARKS



### Opening remarks by the Korean Minister of Environment Ms. Young Sook Yoo

Your Royal Highness Frederik Crown Prince of Denmark, Your Excellency Thorning-Schmidt Prime Minister of Denmark, Your Excellency UN Secretary General Ban Ki-Moon, Your Excellency Elvira Quesada Minister of Mexico, Your Excellency Raila Odinga Prime Minister of Kenya, Your Excellency Meles Zenawi Prime Minister of Ethiopia, Distinguished guests, Ladies and Gentlemen,

I am truly honored to be here at this historical moment in front of such a prominent audience. First of all, I congratulate the Kingdom of Denmark with all my heart on the launch of the Global Green Growth Forum, 3GF, today.

Taking this opportunity, I would like to express my sincere appreciation to the Danish government for inviting me to this momentous event. 3GF will indeed add great weight to the spread of Green Growth across the globe.

Since the industrial revolution, as you are all aware, the world has accomplished unprecedented economic prosperity. Mass production and mass consumption are the symbols of this age. Despite this economic accomplishment, we are now witnessing new challenges such as the global economic crisis and environmental degradation.

After the economic crisis in 2008, today, we are hearing news from the media of a new global economic crisis. Climate change and extreme weather conditions originating from the accumulation of greenhouse gas emissions threaten the very survival of humankind. Such challenges call for a comprehensive reflection on modern civilization and a paradigm shift from the current economic system. I do believe "Green Growth" is the "answer" to such challenges.

Denmark, venue for the 3GF, is well-known for having the world's highest rate of power generation from renewable sources. It is a good example of Green Growth, proving that economic development and environmental protection can go hand in hand.

Ladies and gentlemen,

The international community already recognizes Green Growth as a new development concept that harmonizes the economy and the environment.

First of all, the OECD unanimously adopted the Declaration on Green Growth at its Ministerial Council Meeting in 2009. In May, this year, it published the Green Growth Strategy Synthesis Report. This report encourages the practice of green growth strategies at a time of climate change and energy crisis.

The UN is also deeply committed to making its best efforts for the spread of Green Growth, valuing it as a means to respond to climate change and create jobs. The emphasis on Green Growth by the UN ESCAP and the Green Economy Initiative by the UNEP are good examples of its commitment to such efforts. Green Growth was also discussed at the G20 Summit held

**"3GF will indeed add great weight to the spread of Green Growth across the globe"**

in November 2010, in Seoul. It was specified in the G20 Communique that “we are committed to support country-led green growth policies that promote environmentally sustainable global growth along with employment creation while ensuring energy access for the poor.”

Moreover, Green Economy, which lies in line with the concept of Green Growth and pursues sustainable development and poverty eradication, will be a major agenda at the Rio+20 to be held in Brazil next year.

Ladies and gentlemen,

Now, I would like to share with you Korea's experiences on Green Growth.

In 2008, Korean President Lee Myung-bak declared “Low Carbon, Green Growth” as the new national vision for the next 60 years. This was a fundamental change in the conventional way of thinking. This new paradigm will enable us to actively cope with climate change and environmental degradation, fostering green technology and green industry.

For the implementation of this declaration, Korea established the Presidential Committee on Green Growth and worked out “National Strategy for Green Growth and the 5-year Plan” in 2009. In the same year, at the COP15 of the UNFCCC that was held here in Copenhagen, Korea announced its ambitious greenhouse gas emissions reduction goal of 30 per cent below BAU levels by 2020.

Moreover, Korea has been implementing the “Framework Act on Low Carbon, Green Growth” since April 2010 to lay a comprehensive legal foundation and to change conventional practices of corporate management and the everyday lives of the people. Based on such institutional foundation, Korea is investing 2 per cent of its annual GDP from 2009 to 2013 towards the development of green technology and related infrastructure. Korea is working towards a system change to a green economic and social structure, including the introduction of the Emission Trading Scheme (ETS), the promotion of green buildings and transportation, the spreading of campaigns for a green lifestyle, the fostering of green R&D and green finance, and so on.

Furthermore, as part of a Green New Deal Project that pursues Green Growth and climate change adaptation, Korea is carrying out the “Four Major Rivers Restoration Project.” With an investment of 22 trillion won, equivalent to about 17 billion US dollars, it will create 340,000 new jobs and induce 31 billion US dollars-worth of production. Through this project, we expect to (1) secure sufficient water resources against water scarcity, (2) implement a comprehensive flood control system, (3) improve water quality whilst restoring the river basin ecosystems and (4) develop the local regions including cultural and leisure spaces around rivers.

It is indeed that the launch of 3GF today reminds me of the launch of the Global Green Growth Institute, 3GI last year, with the initiative of the Korean President Lee Myung-bak. Actually, the Korean government established 3GI in June 2010, in order to contribute to spreading Green Growth around the world. 3GI is an international institute that will try to provide solutions for environmental degradation while pursuing economic development.

In particular, it plans to commit itself to work out national strategies of Green Growth and capacity building for developing countries. 3GI has already started to support Ethiopia in Africa, Indonesia in Asia and Brazil in South America for their establishment of Green Growth Plan. It is expected that 3GI will expand its cooperative activities with other countries such as UAE, Cambodia and Kazakhstan, and so on.

Especially, Korea greatly appreciates Denmark's first expression to contribute to 3GI last year which expedites other countries contribution to 3GI.

Distinguished guests,

Now, I would like to mention the Green Growth Alliance between the Kingdom of Denmark and the Republic of Korea.

Last May, Korea and Denmark forged an alliance on Green Growth. This alliance, unlike traditional structures, is a totally new type of alliance that contributes to the common interest of



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# OPENING REMARKS

the international community, rather than being an exclusive alliance that looks only after the interests of the parties concerned. This new type of collaboration is future-oriented, based on a shared value of sustainable development and a commitment to greening the world. Through this alliance, the two countries will strive to explore new strategies, and to practice Green Growth in the era of climate change.

I sincerely hope the alliance be strengthened further and thereby contribute not only to cooperation between the two countries but also towards the globalization of Green Growth.

Ladies and gentlemen,

No one in the world is exempt from environmental crises. Therefore, the responsibility to find solutions lies on all of us.

As I mentioned earlier, system change for Green Growth is the best option for overcoming those challenges. In order to achieve this common goal of the world, we need a pivotal platform for action. I have no doubt that 3GF will be one of the most suitable arenas in this regard. Having said that, it is my request that all those of you present here take more interest and actively participate in the future development of 3GF.

It is my sincere hope that 3GF will contribute to the evolution and diffusion of Green Growth by strengthening public-private partnerships in the world, and accumulating best practices.

Lastly, I would like to close my speech as quoting Danish proverb, "What you are is God's gift to you and what you do by yourself is your gift to God." It is in this context that we can say "What we are here in Copenhagen is God's gift to us and what we are doing now towards Green Growth is our gift to God" which will surely give the pleasure to God.

So, God will bless all of us who are making this world greening and growing. Therefore, I am confident that steadily but surely the time approaches when our vision for Green Growth in general and 3GF in particular will be fully fulfilled.

Once again, I would like to congratulate the Kingdom of Denmark on this important first step of 3GF and I wish this forum the very best of success in its endeavours.

Thank you. Mange Tak, Tusinde Tak.



**"It is my sincere hope that 3GF will contribute to the evolution and diffusion of Green Growth by strengthening public-private partnerships in the world, and accumulating best practices"**





### Opening remarks by the Mexican Minister of Environment Mr. Juan Rafael Elvira Quesada

His Royal Highness the Crown Prince of Denmark Frederik, Honorable Ms. Helle Thorning-Schmidt, Prime Minister of Denmark, Honorable Ms. Young Sook Yoo, Minister of Environment of Korea

Ladies and gentlemen,

I am honored to address you, at this important gathering with key global actors for shaping a more sustainable and fair future for our planet.

I want to thank the government of Denmark, our partners from South Korea and the organizers of the Global Green Growth Forum for your kind invitation. We recognize the important role that Denmark has played to achieve solid results in the climate agenda and now in green growth.

The current global crossroads with critical environmental challenges and a difficult financial situation requires our more inspired reflection. Mexico has foreseen three events with the potential to make the difference both at a global scale and for national agendas. I am referring to the Cancun Agreements and the road to Durban on climate; as well as the upcoming United Nations Conference Rio plus 20 and the G20 meeting, which will take place in June and July next year.

Last December in Mexico, the International community adopted the Cancun Agreements, providing a strong basis from which we can build innovative agendas and move forward to a future low in carbon emissions and a green economy. The effective implementation of these agreements requires the participation of diverse actors.

After Cancun and in the way to Durban, the opportunities for climate action in the private sector make sense from an environmental, social and economic perspective. Some areas with major business opportunities are:

- Clean and renewable energies,
- Waste and energy,
- Urban planning, green construction and transportation.
- Sustainable agriculture, forestry and tourism among others.

Before Cancun we have built a very constructive dialogue with the private sector. We agree on a shared vision on a climate change. After Cancun, we have been working with the private sector on a long term proposal for low carbon development. We are currently identifying the barriers that private sector had to a transition to low carbon economy. We are also working with them on the implementation of very substantive portfolio of projects. We are now preparing for the UN Conference on Sustainable Development, Rio +20. One of the topics to be addressed at this conference is precisely green economy. Rio de Janeiro in

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**“I am certain, that the discussions and conclusions of this 3GF, could be a valuable learning experience for the G20 on the topic of green growth”**



June 2012 will give direction to the international community, agreed by consensus, on where the world will head in the future on this topic. The international commitment resulting from the Summit should:

- Provide a pragmatic way forward to a green economy with solid means of implementation.
- Further engagement of the Bretton Woods institutions on sustainable development.

In the same context, Mexico is very glad to host the G20 meeting during 2012. President Calderon has proposed to have "Green Growth" as one of the key topics of discussion for the works of G20 next year. During the G20, Mexico will keep promoting the active participation of the private sector in the parallel Business Summit (B20), as Canada and Korea did, and France is doing this year. I am certain, that the discussions and conclusions of this 3GF, could be a valuable learning experience for the G20 on the topic of green growth.

For many years, Mexico has believed in green economy as the most effective preventive environmental policy. However, the current economic and environmental crisis force us to scale up our efforts. In this line, we are creating an independent Sustainable Economy Centre.

This Centre will provide elements for the design of low carbon policies and facilitate the adoption of clean technologies. It will also facilitate financing investment and build capacities amongst different players. Our centre will provide services to both public and private actors in Mexico and other regions of the world. The private sector has a key role to play in the transition towards "Green Growth". But governments are also responsible to create the adequate regulatory environment and the correct incentives to shift the economy to a sustainable pathway.

However, we both, public and private sector, have to acknowledge and face that in the near future raising competitiveness will not be possible without embracing clean technologies and the best environmentally sound practices for production and consumption.

I believe that the 3GF plays a key role in ensuring synergies between public and private initiatives for a number of reasons:

1. Firstly, it raises itself as a unique platform for analysis,
2. Secondly, it has the potential, to influence decision making, and bringing about innovative ideas and solutions to catalyze green growth into international fora, as well as national agendas.
3. Finally, 3GF is ideal to build up the necessary partnerships and generate collaborative nets of action.

This kind of forum is ideal to exchange views and build up a necessary partnership among private and public sector. I wish this meeting to be very fruitful, and to deliver creative solutions to the present challenges.

Good and productive morning!

**"We both, public and private sector have to acknowledge and face that in the near future raising competitiveness will not be possible without embracing clean technologies and the best environmentally sound practices for production and consumption"**

**"I believe that the 3GF plays a key role in ensuring synergies between public and private initiatives"**



### **Keynote address by the UN Secretary-General Mr. Ban Ki-moon**

## **“CAN GROWTH BE GREEN? THE UNITED NATIONS IN THE GREEN ECONOMY”**

Crown Prince Frederik of Denmark, Prime Minister Helle Thorning-Schmidt,  
Excellencies, Distinguished delegates, Ladies and Gentlemen,

I am extremely pleased to be here.

Sustainable development is the imperative of the twenty-first century.

Eleanor Roosevelt famously said, “It is better to light a single candle than to curse the dark.” She was absolutely right. But now we need to think of new ways to bring light into darkness. We need a different path. A sustainable path. This is my message to leaders around the world. And that is why we are here today.

This 3G Forum comes at a crucial time.

We are racing to reach the Millennium Development Goals. We are preparing for next year’s Rio + 20 United Nations Conference on Sustainable Development. And we are coping every day with global threats to lives and livelihoods.

The three Gs of Global Green Growth must respond to social, economic and environmental challenges equally. Because we live in an era of three Fs: crises on Food, Fuel and Finance. So we need to enhance the three Es: the Economy, the Environment and global Equity.

This month, the seven billionth citizen of our planet will be born. We have to do more than sing, “Happy birthday.” We have to give this child - and its whole generation - a sustainable future. We have to embrace sustainable agriculture so she has enough food to eat. We have to expand clean energy so that he can reap the benefits of modern productivity without suffering the drawbacks of climate change. And we have to ensure greater opportunities and decent jobs so that people can enjoy lives of dignity and fulfilment.

The old economic models are not working for the countries and companies that embraced them. New models show tremendous promise. I have seen examples around the world.

Prime Minister Meles, I saw Ethiopia is driving a low-carbon pathway by expanding hydro-power and clean cooking solutions. President Odinga, I have seen in Kenya how geothermal, wind and solar power are driving progress. I launched the Sustainable Energy for All initiative because energy access, efficiency and clean energy are essential to building a healthier and more prosperous world. On the one hand, 20 per cent of all people on earth lack basic electricity services. Nearly 3 billion people burn biomass. On the other hand, far too many

**“Sustainable development is the imperative of the twenty-first century”**

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people rely on depletable energy sources - and use them unsustainably. This world of plenty and poverty cannot be sustained.

We need to marshal all forces to power progress in a way that protects our planet and promotes the welfare of all people. We need to come together - rich and poor. We need CEOs, investors, utility companies and renewable energy businesses. Government officials and research scientists. We need bold and bankable solutions. With that kind of action ... with that kind of energy ... we can realize our vision for 2030.

A world where all people have modern energy services. ... where we double the rate of improvement in energy efficiency... and where we double the share of renewable energy in the global mix.

There are excellent examples of progress in Denmark, Mexico and Korea - the three countries that helped make this Forum possible. The Danish company Maersk is designing the world's most efficient container ships - they cut carbon emissions by half. The Eurus wind farm in Oaxaca Mexico will supply one quarter of the country's energy needs. In Korea, LG Electronics has announced plans to invest \$7 billion in electric car batteries, LED lighting, solar panels and other green technologies that can create 10,000 jobs.

I appreciate this engagement. But my message to all countries is the same: we need to do more.

Next year's Rio+20 United Nations Conference on Sustainable Development provides an opportunity for tangible results. This Global Green Growth Forum can help pave the way for success in Rio. And you can start today. I encourage you to address difficult issues.

There are those who fear green growth can lead to trade barriers... and 'green' aid conditionality. You also have to consider entrenched interests that may resist progress, claiming that sustainability is a luxury we cannot afford. The opposite is true: that depleting our natural resources will actually deplete our chances of true prosperity. Guiding the world toward green growth, however, will lead to substantial gains and benefit the majority of humanity and our shared planet.

This Forum should be a chance for thoughtful reflection - and also determined action. Make plans. Form alliances. Commit to engagement long after we leave Copenhagen. Together, we can generate a clean energy transformation, set the world on course for low-carbon growth, and create conditions for a truly sustainable future.

That is why I have made sustainable development my top priority. The green growth agenda can help drive the advancement of sustainable development for the twenty-first century. It is good business - good politics - and good for society. The sustainable development agenda provides a compelling model for generating prosperity on a planet under multiple pressures: climate change, species loss, desertification and pollution.

At Rio, our vision must be clear:  
we need to move quickly toward a sustainable economy that is equitable and inclusive.

Excellencies, Ladies and gentlemen,

The late Wangari Maathai had many titles in her life, including Member of Parliament, Nobel Laureate and United Nations Messenger of Peace. Wangari Maathai understood green growth from the perspective of the world's poor. She said, "Poor people will cut the last tree to cook the last meal. The more you degrade the environment, the more you dig deeper into poverty."

The global movement for sustainable development is about more than economic growth and environmental protection. It is about providing a life of dignity for all people, so that instead of digging deeper into poverty, they can build toward greater levels of prosperity. I count on you to help power this movement for a sustainable future. Thank you.



**"We need to come together - rich and poor. We need CEOs, investors, utility companies and renewable energy businesses. Government officials and research scientists. We need bold and bankable solutions. With that kind of action ... with that kind of energy ... we can realize our vision for 2030"**

**"The green growth agenda can help drive the advancement of sustainable development for the twenty-first century. It is good business - good politics - and good for society. The sustainable development agenda provides a compelling model for generating prosperity on a planet under multiple pressures: climate change, species loss, desertification and pollution"**

# WATER: THE MISSING LINK OF THE GREEN GROWTH AGENDA



**Mr Peter Brabeck-Letmathe**  
Chairman of the Board / Nestlé SA

Mr Peter Brabeck-Letmathe is Chairman of the Board at Nestlé SA and believes public-private partnership can help give comprehensive and coherent solutions for the climate challenges ahead. He would also like to see water given more importance and greater respect as it is a fundamental necessity for green, i.e., resource efficient growth.

### **Importance of public private partnerships**

“Public-private initiatives are one way of finding comprehensive and coherent solutions, though it requires a clear understanding of the respective roles of the parties involved,” says Brabeck-Letmathe. A good example of this partnership is the World Economic Forum’s Water Resources Group (WRG) an influential public-private water network supported by Nestlé, which addresses critical water resources, management and conservation issues.

“The private sector together with the International Finance Corporation provides a new analytical tool, the water cost curve. This helps develop watershed cost-effective strategies, to bring water

### **“PUBLIC-PRIVATE INITIATIVES ARE ONE WAY OF FINDING COMPREHENSIVE AND COHERENT SOLUTIONS”**

withdrawals back into line with natural renewal. It is then up to governments in consultation with local stakeholders to set priorities; business and other actors will then come in with action that contributes to the common goal,” he adds.

### **Nestlé and green growth**

“Most if not all growth is generated by companies and becomes sustainable when they think and act long-term,” says Brabeck-Letmathe. The Nestlé approach is ‘Creating Shared Value’, a concept developed with Professor Michael Porter from Harvard University. This helps reconnect company success with social progress by addressing the needs and challenges of society. Nestlé is focusing on three main areas, water, nutrition and rural development and is involved in a large number of project and initiatives such as the WRG and issues related to biofuels.

### **There is no growth without water**

Mr. Brabeck-Letmathe finds that water should be given far more attention when talking about green growth solutions. “It is quite amazing how little attention has been given to the massive overuse of water, the drying lakes and

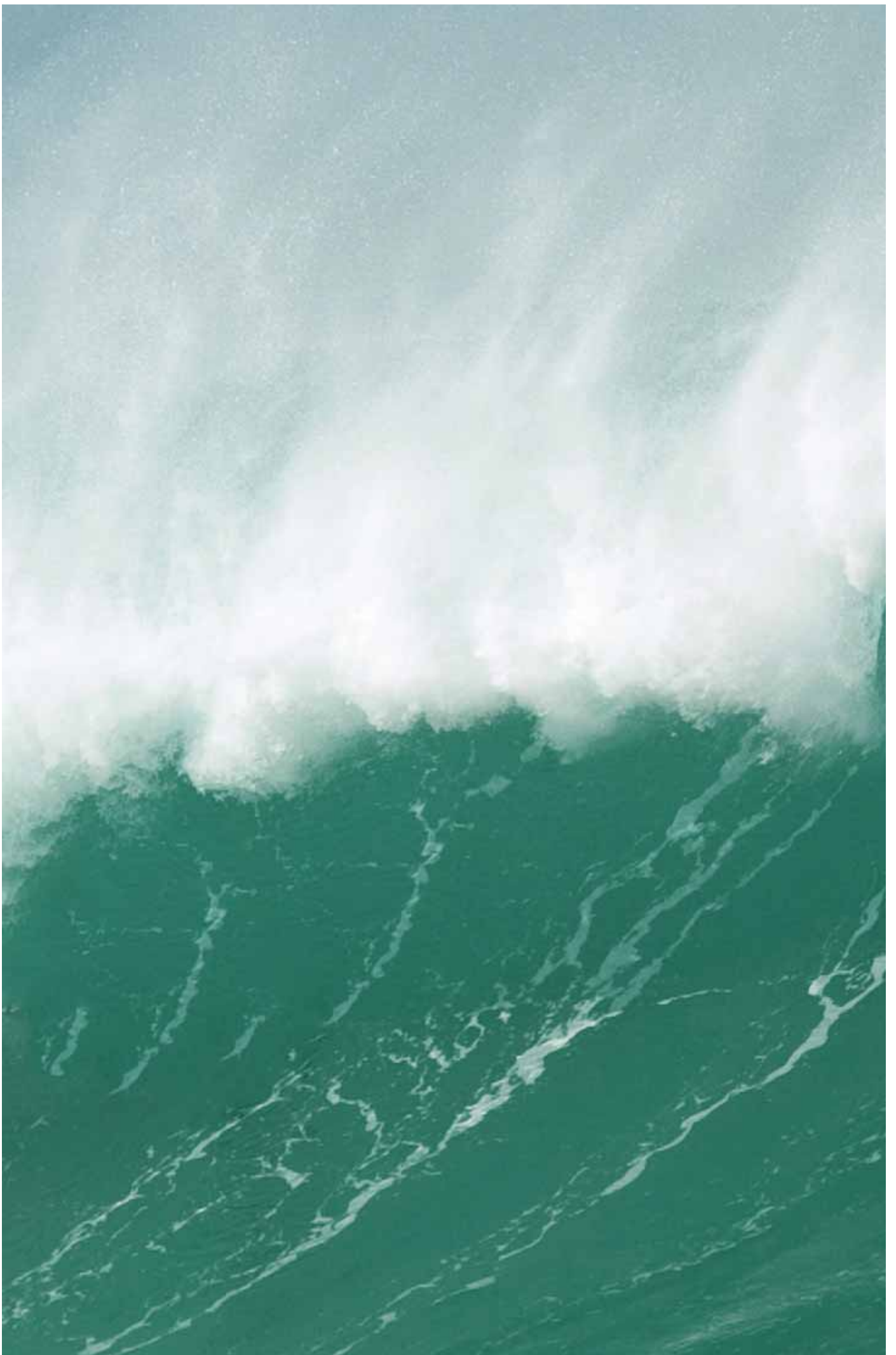
rivers, and the sinking groundwater tables over the last decades. The structural overuse of water needs to be seen as an environmental and social problem and that not dealing with this issue could affect long-term sustainable growth. Understanding the importance of water and much greater respect for its value are prerequisites for sustainable resource-efficient growth.”

In his opinion green growth and green stimulus are political concepts driven mainly by the parameter of greenhouse gases. Therefore other green growth related issues are currently being overlooked, including efficient use of financial resources, opportunity costs, the distortive effect of subsidies and heavy-handed state interventions.

### **3GF promoting water issues**

“I think this year 3GF helped overcome some of the dogmas and ideologies, therefore by widening and opening up a fresh perspective. Integrating water was a real breakthrough and a step forward to truly realize sustainable green growth. The exchange between government, civil society and business turned out to be very productive,” he says.

Mr Brabeck-Letmathe believes an important next step will be Rio+20 with the development of new strategies for a more resource-efficient growth based on facts, with clear priorities within the food-water-energy nexus. “The overall concrete outcome I would hope to see in Rio is an agreement that no food should be used to produce fuels. 3GF 2012 might build on Rio+20 and help to move towards more concrete practical implementation,” he concludes.





## Plenary debate I:

# BUILDING AN ENABLING ENVIRONMENT TO CATALYZE GREEN GROWTH

*Panelists:* **Raila Odinga** / Prime Minister / Kenya / **Angel Gurría** / Secretary-General / OECD / **Connie Hedegaard** / Commissioner / European Commission / **Niels B. Christiansen** / CEO / Danfoss.

*Moderator:* **Rachel Kyte** / Vice President / World Bank.

### Session Summary

#### *Green transition a necessity despite economic crisis*

Representing the perspectives of government and business, developing and industrialized countries, regional and national entities, the panelists of this first plenary discussion all agreed that green growth is the only viable means to sustainable development for all. The economic crisis sweeping over the industrialized world and the need for continued high economic growth rates in developing and emerging economies had not altered this perception. The fact is – as it was stressed several times during the session – that business as usual and political inaction merely postpones a necessary transition and turns it more costly. From this point of departure, the panelists identified a number of opportunities and challenges related to promoting green growth.

#### *Opportunities*

The following opportunities were singled out by the panelists:

- Existing green technologies are underexploited and can be scaled at low costs through government regulation and standards.
- A vast number of valuable stand alone examples of green solutions exist in cities, countries and regions, ready to be scaled.
- The private sector is increasingly aligned with governments in the pursuit of green growth, offering new opportunities for progressive public-private partnerships.
- The financial resources required for a global green transition are not insurmountable.

#### *Challenges*

Panelists also pointed to significant challenges that need to be overcome to foster global green growth:

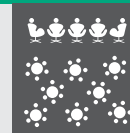
- Private funding for especially developing countries is scarce. Green technologies are virgin territory for investors with correspondingly high risk perception.
- Moving away from business as usual requires a change in mindsets of policy makers, businesses, investors and consumers.

#### *Way ahead: regulation and prices*

To seize opportunities and meet challenges, the panelists focussed on two central instruments: government regulation and getting the prices right:

- Long term green policy targets work to give longevity to investors.
- Ambitious standards will serve to scale up green technologies and push the private sector to innovate. Standards should be set in dialogue with companies in order to ensure viability and industry support.
- Energy and climate policies need to be mainstreamed in financial policies.
- The green transition will be financed if the prices are right, which can be achieved i.a. by internalizing environmental costs in resource prices, cutting subsidies on fossil fuels, taxing consumption rather than earnings (“tax what you burn, not what you earn”).

Panelists stressed that there would be considerable first mover advantages for the companies, countries and regions who managed to go through an efficient green transition; in terms of new jobs, social inclusion and sustainable economic growth.



## Plenary debate II:

# NATIONAL ACTION ON GREEN GROWTH

*Panelists:* **H.E. Meles Zenawi** / Prime Minister / Ethiopia / **Jae-do Moon** / Deputy Minister of Knowledge Economy / Republic of Korea / **Ole Sohn** / Minister of Business and Growth / Denmark. **Luciano Coutinho** / President / Brazilian Development Bank.  
*Moderator:* **Kandeh Yumkella** / Director-General / UNIDO.

### Session Summary

In the second plenary debate, a panel of top decision makers for the economic planning and development of Ethiopia, The Republic of Korea, Denmark and Brazil offered an insight in the diverse green growth planning experiences of four leading green growth nations from four different continents, representing different stages and models of economic development.

#### *Ethiopia - taking the consequence of private sector risk aversion in energy.*

Prime Minister Zenawi explained the necessity to create climate resilient economies in a continent where climate changes are already a reality, and for Africa not to “miss the boat” of yet another industrial revolution. Ethiopia aims for a zero net increase in greenhouse gas emissions while moving from low to middle income country by 2025. The green growth plan rests on three pillars: 1) reforestation and improving crop and livestock production, 2) expanding electricity generation from wind, sun and hydropower, 3) use of biofuels. While 1 and 3 will happen in cooperation with the private sector, energy production will be kept on public hands as a consequence of the extensive government guarantees required by the foreign private sector for energy investments in Africa.

#### *Korea - planning in close coordination with private sector.*

The Republic of Korea formulated a low carbon green growth national vision in 2008 and Deputy Minister Moon accredited the current success of the plan to the close partnership with the private sector. To oversee the implementation of the vision, a presidential committee comprising Korea's public and private sector, was established. The overarching legal framework for the national green growth strategy was developed in close consultation with the private sector. While time-consuming, the national green growth strategy and legal framework now enjoy the backing of Korean industries. Korean companies have been quick to follow government policies, and green jobs have been created in shipbuilding and the automobile industry among others.

#### *Brazil - green development led by public policy*

Coutinho explained that Brazil aims to be an example of green development, stressing the aspect of social inclusion in low carbon economic growth. To this end, public policy needs to lead the way, using three key instruments: 1) regulation and control: standard-setting, taxation and incentives, 2) planning: development of a sustainable, socially inclusive infrastructure, and 3) financing: using development banks, regional banks etc. to support massive investments.

#### *Denmark - success relying on ability to create public-private win-win situation*

The Danish experience of economic growth while maintaining the level of greenhouse gas emissions has, explained Minister Sohn, been more of an evolution than a revolution. Green growth has been promoted by government through a carrot and stick policy - prompting industry and private consumers to increase energy efficiency and substitute fossil fuels with renewables. The key to the Danish success has been as close dialogue with the private sector and finding paths where all parties stand to benefit.

Panelists all saw the great potential for learning between different models and experiences - across continents, sizes of economy etc.



## Plenary debate III:

# INTERNATIONAL ACTION ON GREEN GROWTH

*Panelists:* **Villy Søvndal** / Minister for Foreign Affairs / Denmark / **Christiana Figueres** / Executive Secretary / UNFCCC / **Jim Leape** / Director General / WWF International / **Ditlev Engel** / CEO / Vestas / **Achim Steiner** / Executive Director / UNEP.  
*Moderator:* **Richard Samans** / Executive Director / Global Green Growth Institute.

### Session Summary

In the third plenary debate, key leaders of international governance, business and civil society engaged in a discussion on how bottom-up green growth initiatives can complement and be fostered by international political action.

#### *Top down political action and bottom-up initiatives are equally necessary.*

The panelists unequivocally concurred that the daunting task of reinventing the global economy - by design rather than by default - will require concerted action by all stakeholders; governments, business and citizens, both top-down and bottom-up. As examples of how bottom-up initiatives comprise an indispensable part of the overall green growth architecture, Christiana Figueres pointed out that corporations have an important role in opening the political space for ambitious policies. Jim Leape gave examples of how coalitions of civil society and businesses through certification initiatives can push global norms and standards for sustainably produced commodities.

#### *Moving ahead with a green coalition of the willing*

Panelists also agreed that pioneering governments and businesses play a crucial role in constantly raising the bar for their peers. Denmark is seeking to take this role in the EU, explained Minister Søvndal, just as Denmark with the launch of 3GF is looking to establish a global "coalition of the willing" among governments, business and civil society in terms of advancing the green growth agenda from the bottom-up. Achim Steiner and Ditlev Engel pointed out that with few exceptions (e.g. Denmark and Australia), climate conscious consumers and political leaders taking bold decisions are currently mainly found among low and middle income economies, where the impact of climate changes is most imminent.

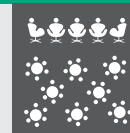
#### *Bottom-up price adjustments in the absence of global carbon tax*

Internalizing environmental costs in prices was mentioned as one of the key top-down policy instruments required. A robust price on carbon was one of four core recommendations from the green growth business roundtable chaired by Ditlev Engel to G20 (the others being 1) allowing free trade of environmental goods and services, 2) ending subsidies on fossil fuels and 3) scaling up green tech innovation). As pointed out by Achim Steiner, however, a cacophony of national and international political and economic interests currently hinders unified political action to this end. This prompted the moderator Richard Samans to call for a broadening of the price discussion beyond carbon taxes and carbon trading schemes; a range of bottom-up public-private initiatives - including initiatives featured and discussed during the Forum - have the potential to influence prices by scaling up demand (e.g. green procurement), regulating standards, removing trade barriers etc..

#### *Rio as a platform for international political orientation and collaborative action*

Rio+20 was generally seen as a potential for giving momentum to both bottom-up and top-down action for green growth. In a world of extreme uncertainty and lack of cohesion, Rio+20 can be a place of orientation for political leadership as well as a showcase for strong bottom-up coalitions pursuing changes here and now.





## Plenary debate IV:

# CATALYZING GREEN GROWTH: AN AGENDA FOR COLLABORATIVE ACTION

*Panelists:* **Martin Lidegaard** / Minister for Climate, Energy and Building / Government of Denmark / **Francisco Barnés Reguriro** / President / National Institute of Ecology / Government of Mexico / **Soogil Young** / Chairman of the Presidential Committee of Green Growth / Government of the Republic of Korea / **Peter Brabeck-Letmathe** / Chairman of the Board / Nestlé.

*Moderator:* **Simon Zadek** / Senior Fellow / Global Green Growth Institute

### Session summary

#### *Opportunities: Public-private partnerships for green growth*

The core government partners behind 3GF, and Nestlé's Chair, strongly endorsed 3GF's fundamental approach: Green growth with an emphasis on the economic growth aspect; the need for speed to scale in the light of the challenges facing us; partnership approaches given the weaknesses in global and national state-led action; and the inability for business to act progressively without the right enabling policy environment. That said, they encouraged a yet greater focus on the economics, and equally encouraged 3GF to remain ambitious in the partnerships that it helped to catalyze. Minister Lidegaard underlined the need for a dual approach, where bottom-up collaboration supplements the global negotiation framework.

Drawing from country and business experiences, the panelists identified the following opportunities related to public-private partnerships and what such cooperation would require:

- Public-private partnerships for green growth must make "business sense" for companies, while enabling the public partners to strengthen access to public goods.
- Public partners should make strategic investments to give political direction and minimize risk in the green sectors, thereby mobilizing private investments.
- Public-private partnerships must build on a joint goal: Efficient use of resources and development of smart grids were mentioned as two areas, where public and private interests coincide.
- There is a need for identifying the concrete public-private opportunities for green growth at country level (particularly in developing countries) and a mechanism to enable public and private actors to jointly bear the cost of a low carbon transition.

#### *Looking towards 3GF2012*

The role of citizens in the green transition process was discussed, with a strong message from Nestlé's Chair that they should not be expected to drive change as consumers. That said, considering the strong, popular support for green growth, particularly in Denmark and Korea, two of 3GF's partners, it was highlighted how important it was for citizens to support their governments in investing in the long term potential and need underlying the green growth agenda. A greater focus in coming years on how such national consensus was shaped to allow for smart green growth planning, investment, and so on, was encouraged.

The need for a global definition of green growth also emerged as a conclusion from the debate, as it was noted that businesses generally perceive green growth to equal economic growth while reducing carbon emissions. This is a major challenge, because green growth is not "business as usual": It requires a reconfiguration of the mind-set of businesses, politicians and civil society, to understand the underlying nexuses of resource utilization, including the inter-linkages of food, energy and water security. 3GF was invited to address this challenge.

Dr. Young similarly called for a shift in the overall economic paradigm, noting that the current principles of economic management, which direct financial capital to speculative financial activities away from natural assets, represents a main cause of the global financial, environmental and climate crises.

Finally, panelists highlighted the need to engage in a discussion with small and medium enterprises on green growth. A number of additional sectors relevant for green growth were mentioned as relevant to explore in a 3GF context in the future, incl. the use of taxes as a driver of the green transition, sustainable agriculture as well as urbanization and green cities.

# THE ROLE OF PUBLIC-PRIVATE COOPERATION IN ENABLING GREEN GROWTH



by **Richard Samans** / Executive Director / GGGI

Economists understand economic growth to be a function of changes in the supply of labor and capital, the efficiency by which these and other factor inputs such as natural resources are utilized and technological change. Since an economy's workforce and capital stock tend to be relatively stable or predictable over time, its long-term growth potential (as opposed to short-term growth prospects, which can be significantly influenced by fluctuations in investment, savings, net exports, etc.), is thought to be particularly dependent on gains in factor efficiency and innovation, or what economists call total factor productivity or TFP.

Green growth is a relatively new concept that has been characterized by the OECD as "fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies." It is closely related to the concept of a green economy, which UNEP defines as one in which "growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services."

### Toward a new paradigm of economic growth

In any discussion of economic growth, an important caveat is in order: growth is not an end in itself. The fundamental objective of economic policy is not growth but rather broad-based progress in living standards. After all, growth in GDP per capita is a measure of mean, not median, progress. Moreover, it is only a partial measure insofar as it captures the production of most but not all goods and services, omitting or undervaluing some of those that improve a society's health, security, environment, etc.

GDP growth is an imperfect proxy for the pace and breadth of progress in living standards. But while it may not be sufficient for economic success, it certainly is necessary. In all but very wealthy societies, major socioeconomic progress is simply not possible without rising employment, incomes and wealth.

Thus, both the quantity and quality (or composition) of growth matter. The ultimate objective of economic policy must be to generate what might be called BIG growth --- i.e., strong GDP growth that is also Balanced in the sense of being resilient and stable rather than prone to disruptive booms and busts; Inclusive in the sense of generating broad-based social gains rather than exacerbating inequality and social exclusion; and Green in the sense described by the OECD, UNEP and others.

Green growth is therefore best understood as one part of a three-part quest to enlarge the very conception of economic growth --- to create a new economic model that produces faster but also wider, more resilient and more environmentally sustainable economic progress.

Construction of this new paradigm begins with recognition that the quantitative and qualitative aspects of growth require equal and integrated attention by policymakers. This may sound obvious and uncontroversial in the aftermath of a systemic international financial crisis and during a period of rising income inequality and widespread ecological degradation. However, the challenge such parallelism poses to economists and policymakers should not be underestimated, as it represents a departure from the way the economics has been taught and economic policy has been practiced for over a generation.

While important, measures that promote the allocative efficiency of markets and quantitative side of growth, (e.g., deregulation, privatization, trade liberalization and fiscal balance) have been systematically overemphasized relative to the three more qualitative parameters of

**"Green growth is therefore best understood as one part of a three-part quest to enlarge the very conception of economic growth --- to create a new economic model that produces faster but also wider, more resilient and more environmentally sustainable economic progress"**

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BIG growth, sometimes to catastrophic effect, as illustrated by the recent sharp rise in unemployment, poverty and social upheaval in some countries and deterioration of fisheries and fresh water supplies in still others.

Rhetorical recognition of the need for a new growth model may now be widespread, as evidenced by G20 leader communiqués and similar pronouncements by heads of the major international economic institutions. But actual change in policy and pedagogy has only just begun. What is needed next is a more specific investigation of how and when the promotion of financial stability, social inclusion and environmental sustainability can complement and even accelerate allocative efficiency and top-line GDP growth. What specific policies and initiatives promote win-win, BIG growth outcomes, and how can governments and other stakeholders most effectively pursue them? Such an investigation in respect of green growth is the very purpose of the Global Green Growth Institute and its partner, the Global Green Growth Forum.

### Strategies to enable green growth: Historical Precedents

Green growth's connection to GDP growth is comparatively straightforward, since it is fundamentally concerned with increasing the efficiency by which economies utilize one of their most important factor inputs --- natural resources --- through the application of existing and innovation of new resource-efficient technologies and practices. As a resource productivity agenda, green growth is intrinsically a total factor productivity agenda - i.e., a pure allocative efficiency play that also promotes social well being by reducing the environmental externalities that often accompany the exploitation of natural resources in the form of pollution, biodiversity loss, etc.

What strategies are available to government and other actors to more fully exploit green growth's win-win, quantitative-qualitative growth potential? The answer is: the same techniques market economies have historically employed to promote economic growth more generally. These include:

- Compensating for market failures and providing public goods
- Enhancing competition by reducing information asymmetries and otherwise leveling the playing field
- Reducing investment uncertainty by creating predictable rules, regulations and macroeconomic conditions
- Reducing barriers to entry such as prohibitive initial costs or insufficient experience or data
- Reducing barriers to economies of scale such as fragmented or inconsistent information or standards

There is a long and geographically diverse history of government policy and public-private cooperation along these lines aimed at improving the enabling environment for private investment in industries deemed to have significant potential to generate large productivity gains for the economy as a whole. Far from picking winners and losers, these interventions seek to build the underlying infrastructure of new markets by removing obstacles that distort market signals or deter the entry of a wider range of competitors and investors. They create the playing field, the rules and sometimes the basic inputs necessary to support a major expansion of investment and competition in areas considered to have a broader potential economic and social payoff. Examples include:

**Compensating for market failures:** Public investment in railroads, highways and ports; laws compelling primary and secondary attendance and prohibiting child labor; provision of agricultural extension services and subsidies for land grant universities; public investment in basic health, *physics and other R&D*; tax preferences for orphan drugs and private pension savings, etc.

**What strategies are available to government and other actors to more fully exploit green growth's win-win, quantitative-qualitative growth potential? The answer is: the same techniques market economies have historically employed to promote economic growth more generally.**

**Reducing information asymmetries and leveling the playing field:** public-private cooperation in the development of financial accounting and corporate disclosure standards (IASB, FASB, etc.); publicly-funded independent anti-corruption investigative agencies; nutritional labeling guidelines; vehicle and appliance efficiency standards; etc.

**Reducing investment uncertainty:** establishment of independent central banks; creation of antitrust and intellectual property laws; creation of corporate governance rules and regulations in such areas of limited liability, minority shareholder protections, bankruptcy and securities registration; creation of government-sponsored lending agencies for small businesses and homeowners; etc.

**Reducing barriers to entry:** tariff preferences for imports from least developed countries; subsidized industrial credit to new entrants in capital intensive industries (e.g., Airbus in the 1980s); public procurement rules regarding small and minority-owned businesses; etc.

**Reducing barriers to scale:** national regulation and international coordination of radio and cellphone frequencies; multistakeholder cooperation in the establishment of common internet protocols (ICANN); public procurement programs for fuel-efficient vehicles; etc.

Interventions of this nature have traditionally played an important role in catalyzing the early growth and eventual scaling of young industries that went on to contribute widespread productivity improvements. Some of these strategies were literally transformational. Most required a substantial degree of public-private cooperation to design and implement.

## **International Economic Architecture for Green Growth: Creating Synergy between Top-down and Bottom-up Progress through Public-Private Cooperation.**

The core purpose of 3GF is to stimulate a deliberate international thought process about the kinds of government and public-private approaches of this nature that have the potential to help trigger similar waves of progress in key industries related to green growth, and to catalyze like-minded coalitions of willing and able industry and government actors to take them forward.

The projects and initiatives chosen for discussion at this inaugural Global Green Growth Forum correspond closely to these historical precedents. For example:

- The International Partnership for Energy Efficiency Cooperation's (IPEEC) utility-scale energy efficiency and end-user efficiency metrics initiatives that will be discussed in an Energy Strategy Session are aimed at reducing barriers to scale by expanding common information and creating a level playing field.
- The Sustainable Energy Trade Agreement and Green Public Procurement initiatives that will be discussed in two panel sessions on Day 2 are aimed at reducing barriers to entry and scale by creating positive tariff and regulatory preferences and removing perverse disincentives.
- The Sustainable Biofuels for Aviation and Electric Vehicle Test Market initiatives that will be discussed in respective Transport Strategy Sessions on Day 1 are aimed at reducing barriers to entry and scale by pooling research and regulatory efforts, respectively, across a number of corporate actors and governments.
- The Water Resources Group and South African Renewables Initiative (SARI) to be discussed in the Water and Finance Strategy Sessions are aimed at overcoming market failures and reducing investment risks and uncertainties through the pooling of public and private resources.

These initiatives fall squarely within the tradition of the governmental and public-private strategies that catalyzed growth in the railroad, television, internet, accounting, securities, airline and countless other industries that revolutionized productivity in their day. They and other initiatives like them represent the building blocks of a public-private enabling architecture for green growth that would help to accelerate the transition of manufacturing, construction, energy, water and agricultural systems to a much more resource-efficient mode of production.

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In recent years, international environmental governance in general and the UN climate change negotiations in particular have focused on building top-down political architecture, i.e., national environmental commitments and international environmental goals. The purpose of 3GF and the public-private cooperation activities of GGGI is to encourage the international community to construct a complementary economic architecture --- a bottom-up set of results-oriented mechanisms and institutions that create the underlying market infrastructure which can drive faster progress toward green growth by removing some of the risks, uncertainties and market imperfections that impede the engagement of additional private resources and actors into a wider competition for resource-related efficiency gains.

Because it is focused on enhancing productivity growth, this public-private, green growth agenda has an inherent economic justification. Of course, it also has a compelling environmental justification, but this is a co-benefit rather than the main, let alone unique, rationale. By advancing progress on the ground, it could also have the political co-benefit of improving the chemistry of international negotiations, demonstrating that the United Nations' objective of "a green economy in the context of sustainable development" is indeed possible and improving the readiness of countries to implement whatever climate, biodiversity, fisheries, water and other treaties diplomats agree to whenever they agree to them.

2012 is shaping up to be a crucial year for both international economic and environmental cooperation, with crises and corresponding opportunities looming on both fronts. In addition, we do not have the luxury of time to engineer a greener growth model. Investments in power, industrial and construction systems over the next ten years will lock in environmental consequences for the next forty. As governments prepare for the United Nations Rio+20 conference and expiration of the Kyoto Protocol's first commitment period next year, they would do well to recognize the potential benefit of working with the private sector and other stakeholders to build this bottom-up, enabling economic architecture, viewing it as a natural complement to the traditional focus of international environmental governance on top-down legal frameworks and institutions. However, this will require non-state actors to be treated as genuine partners rather than stakeholders requiring mere consultation in a few conference side events.

#### **Conclusion: Key questions for discussion at the Global Green Growth Forum**

Judging from the history of industries as diverse as accounting, information technology, aviation, electricity and asset management - all of which have had a far-reaching impact on economic productivity - public-private cooperation has a vital role to play in enabling the acceleration and scaling of industries related to green growth. Accordingly, we encourage participants in the Global Green Growth Forum to share perspectives on such questions as:

- What kinds of investment uncertainties, fragmentation of information and markets, barriers to entry or scale or market imperfections they believe stand in the way of more rapid expansion of green products and services?
- How could these obstacles be remedied through governmental, public-private or intra- or crossindustry cooperation?
- How might you or your organization consider contributing in a concrete fashion to the success of one or more of the ten initiatives highlighted in the 2011 Forum?
- How should these and other bottom-up frameworks and initiatives be integrated into the broader political agenda for and governance of international economic and environmental cooperation?

**The purpose of 3GF and the public-private cooperation activities of GGGI is to encourage the international community to construct a complementary economic architecture --- a bottom-up set of results-oriented mechanisms and institutions that create the underlying market infrastructure which can drive faster progress toward green growth by removing some of the risks, uncertainties and market imperfections that impede the engagement of additional private resources and actors into a wider competition for resource-related efficiency gains.**

# TURNING THE SKIES GREEN WITH SUSTAINABLE BIOFUELS



**Mr. Martin Porsgaard**  
Director of Sustainability and Environment / Scandinavian Airlines (SAS)

Mr. Martin Porsgaard, Director of Sustainability and Environment at Scandinavian Airlines (SAS) believes the aviation industry has an important role to play in the transition to a green growth economy. He is convinced that airlines can make a positive difference and at this year's 3GF, SAS co-launched the Sustainable Biofuels for Aviation (SBfA) initiative with the Air Transport Action Group (ATAG), DI Bioenergy, Sustainable Biofuels Network and Copenhagen Cleantech Cluster.

## **The aviation sector working for sustainability while seizing the growth potential**

"We need to let different decision-makers know that we are actively participating in the CO2 reduction agenda," says Mr. Porsgaard. Scandinavian Airlines plans to become sustainable in the future and believes that using sustainable biofuels will play an increasingly crucial role. "The aviation industry is an important driver of global economic growth and so

## **"THE AVIATION INDUSTRY IS AN IMPORTANT DRIVER OF GLOBAL ECONOMIC GROWTH"**

the benefits of sustainable practices will help contribute to value, growth and competitiveness," he adds.

## **An international initiative on Sustainable Biofuels for Aviation**

Martin Porsgaard thinks it is fundamentally important to put aviation on the agenda in other places than just within aviation circles. "This SBfA initiative makes it very clear to decision makers, that we have no other alternatives than liquid fuel, as we cannot fly on battery or sun power. So we need to start using sustainable biofuels which is less of an environmental burden than burning fossil fuels," he says. "The major challenge facing us right now is making sure there will be enough feed stocks and resources to produce sustainable biofuels. There is a lot of competition with other sectors for biofuels. Governments will need to become more involved and start making decisions, while oil companies need to become more active, in developing biofuel production for aviation," Mr. Porsgaard notes.

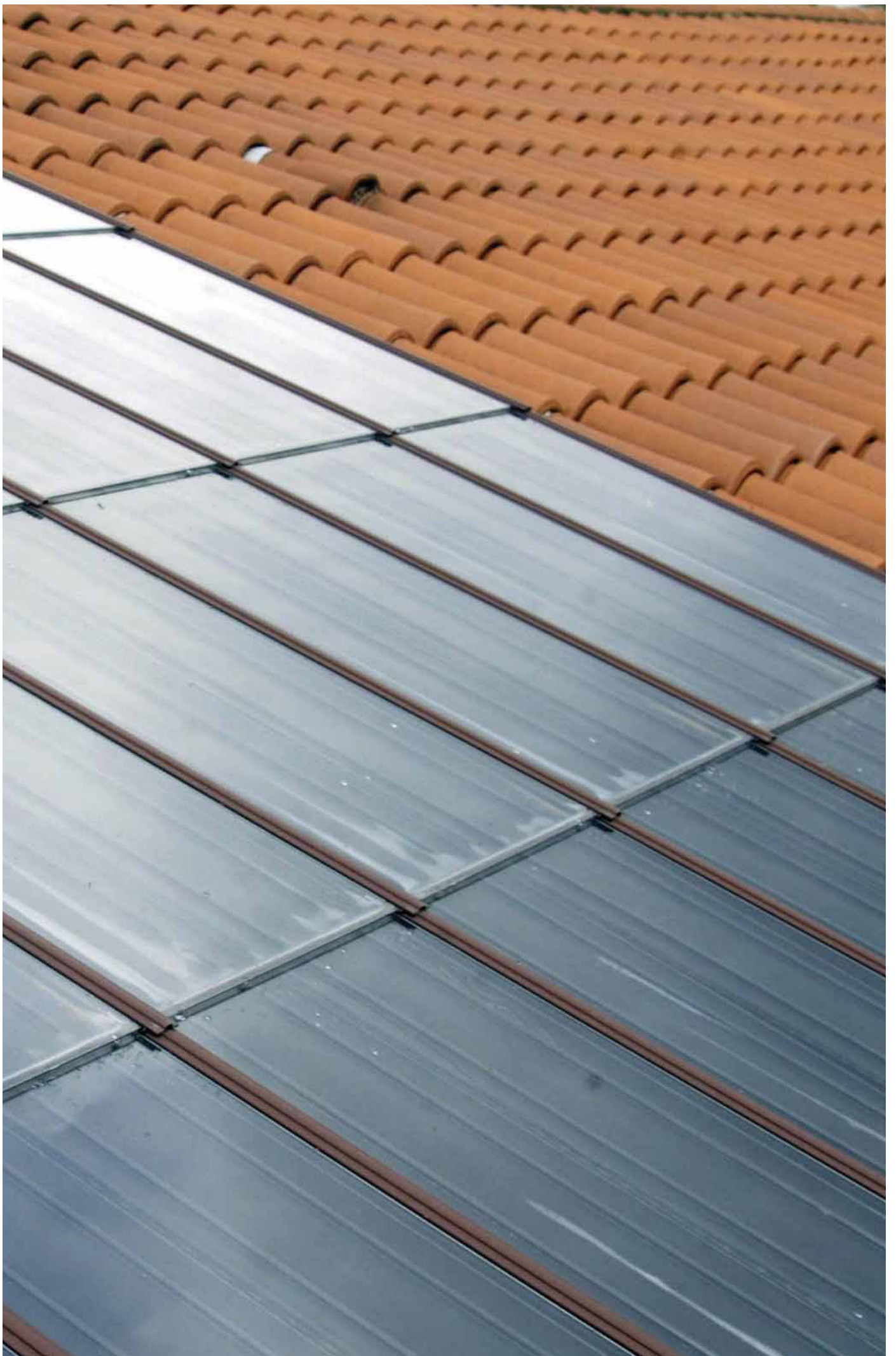
## **Ensuring a global impact**

Martin Porsgaard believes the initiative needs to be global to have an impact. "We need an international understanding, because the aviation industry is continuously crossing borders," he says.

SAS does not stand alone with its high ambitions for the airline industry pursuing a green growth path. To bold its efforts, SAS has joined forces with a number of other major international airlines to set up an aviation fuel user group. "We need partnerships, because we need access to production facilities all across the world, so we can fill up on sustainable biofuels at our destinations," he adds.

## **How has 3GF helped?**

The SBfA initiative partners, including SAS invited a group of high-level stakeholders representing all aspects of the aviation industry to participate in the strategy discussions on SBfA at this year's 3GF. A set of concrete forward-looking conclusions and recommendations came out of those discussions and will guide their work for the next year. Now that the initiative has been launched, the next step is putting this forward in other forums, e.g. by feeding the SBfA initiative into preparations for Rio+20 in 2012.



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