

# **Climate, Development, Energy: Developing an Action Agenda based on the**

***World Economic and Social Survey 2009:  
Promoting Development, Saving the Planet***

***Preparing for “The Big Push”***

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# WESS 2009: A Comprehensive Review of Climate-Development-Energy, 2010-2050



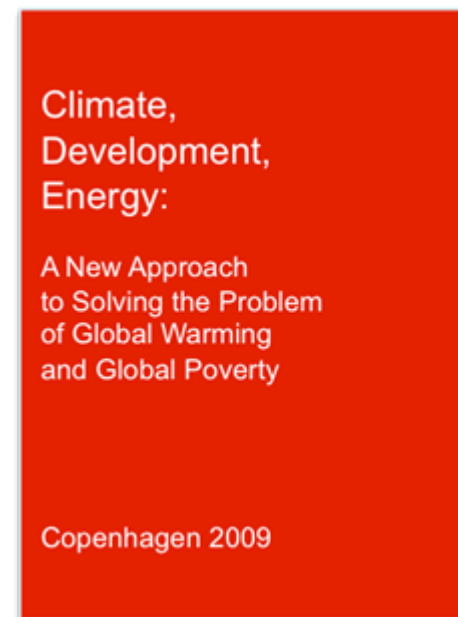
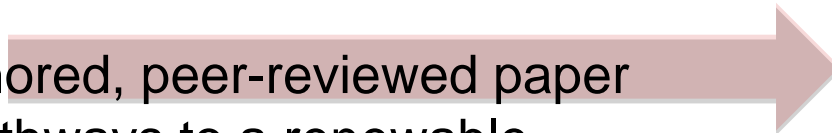
- “... the **best possible options** available to countries at different levels of development” (Ban Ki-Moon)
- Mapping the pathway to a **global renewable energy transition** – that meets the development as well as the climate change challenge
- Defining the **scale** and **speed** at which such a transformation needs to occur, to meet global emissions and temperature “deadlines”
- Comparison of **market v. public investment strategies**: costs, returns, impacts
- **Changing perceptions from “zero-sum” to “win-win”**



## Developing an Action Agenda based on WESS 2009

### “The Big Push”

- “Strategy Briefing for Decision-Makers,” to be launched at Copenhagen
- Multiple-authored, peer-reviewed paper on critical pathways to a renewable energy transition, for publication early 2010
- Longer technical report, early 2010
- Web 2.0 communications strategy to build dialogue and engagement
- Create the basis for stronger international cooperation, in a concrete, programmatic, problem-solving mode, on climate *and* development



# Background: Reframing the Strategic Context

- Development is a **positive-sum game**
- Climate change is largely being viewed as a **zero sum game**, and this inhibits cooperation and effective action
- A **development-based approach** to climate change can transform it from a zero- to positive-sum (win-win) game
- The **Key Elements**: strategic direction, energy policy guidance, and upfront investment to make renewable energy services an affordable and market-preferred choice
- The **Goal**: Make “leapfrogging” a reality and create a virtuous cycle of accelerated, renewable energy-powered sustainable development ... and redevelopment

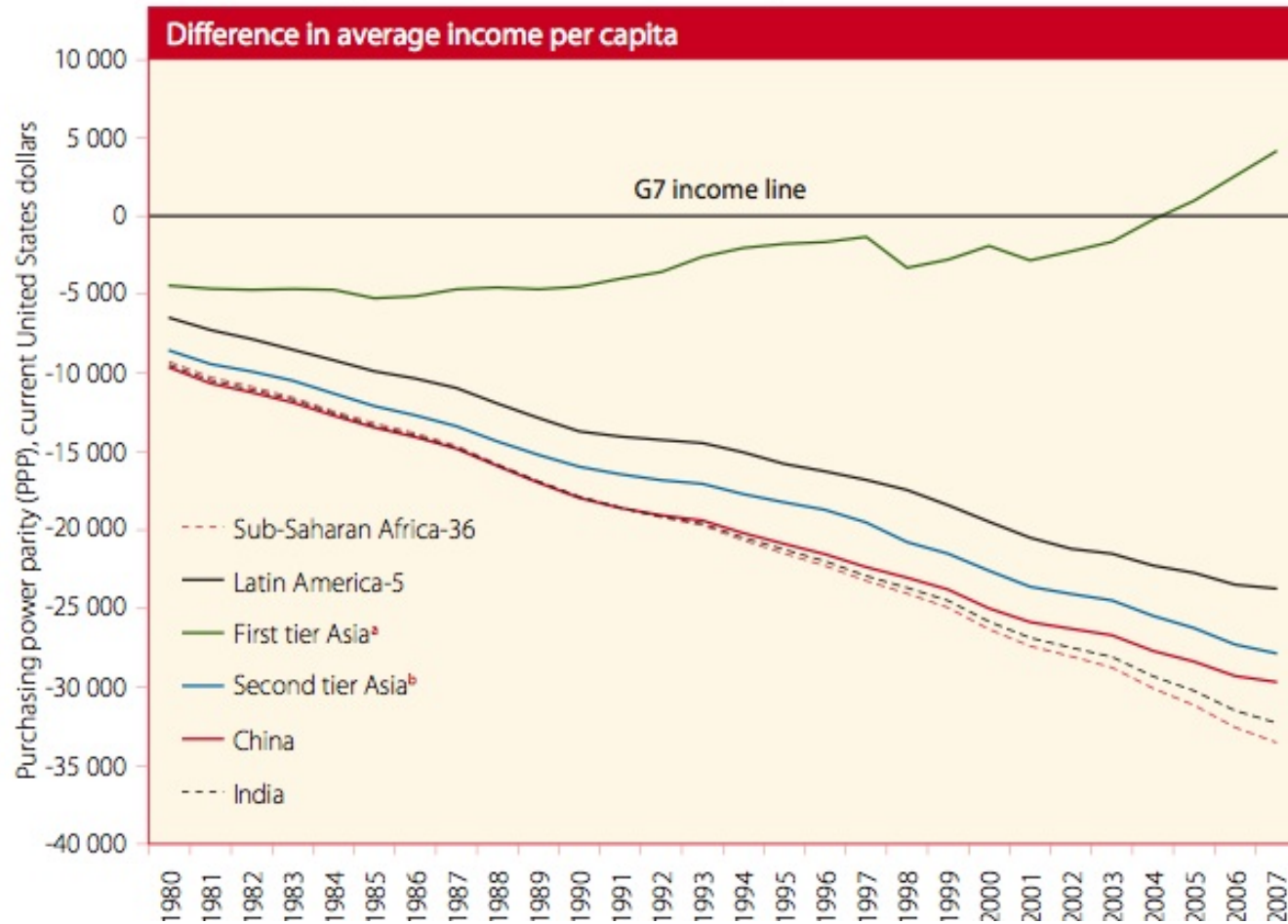


# Key Findings from the WESS 2009 Analysis

- Energy is strongly correlated with development – and is key to development. Developing countries must be supported in achieving their energy and development goals
- Transformation of the energy sector is critical to achieving global climate stability goals
- Over 90% of the energy infrastructure in developing countries will be built between now and 2050 – creating enormous opportunities for directing that build-out in renewable directions
- Developing countries need renewable energy at an affordable price
- To reduce the cost of renewables and create a sustained, virtuous cycle of growth – in both the developing and developed world – upfront investments are essential



## The income gap between G7 and selected regions, 1980-2007

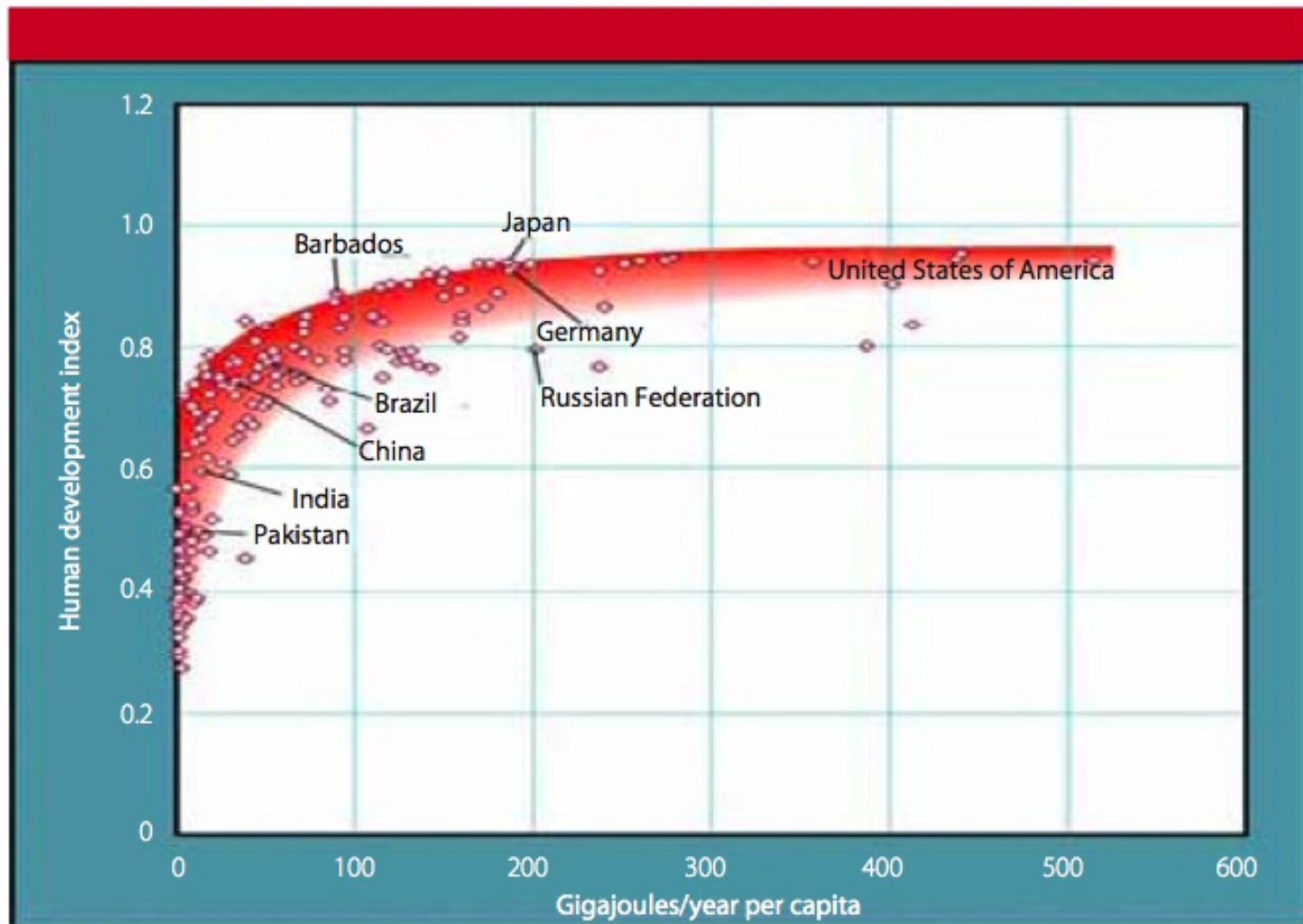


Source: UN DESA / DPAD / DSP calculations, WB-WDI Data



World Economic and Social Survey 2009

Figure II.5  
Per capita energy consumption and human development, selected countries

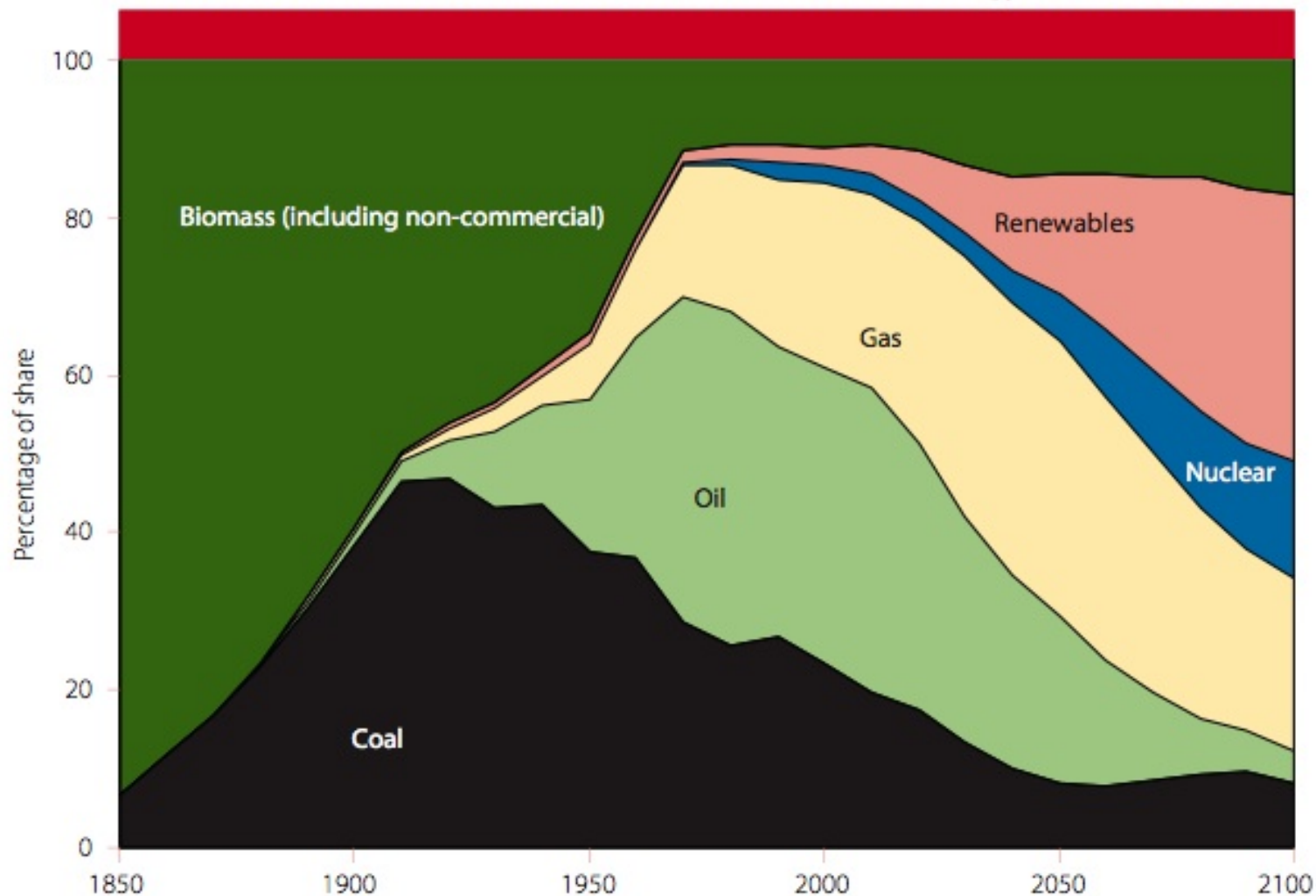


Sources: Banuri, 2007





**Figure O.2**  
**Historical evolution of, and a possible future for, the global energy system,**  
**in the context of the relative shares of the most important energy sources, 1850-2100**

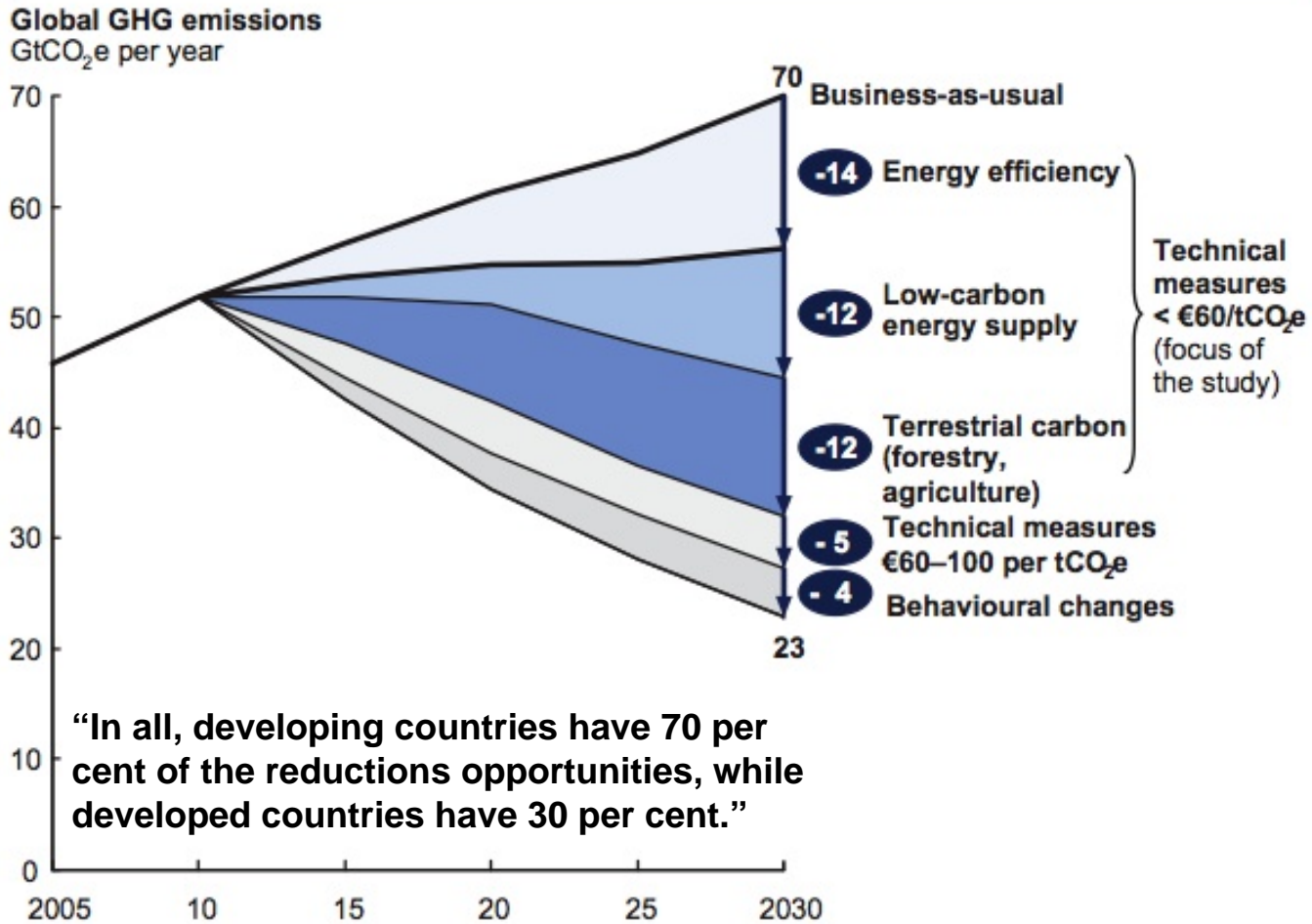


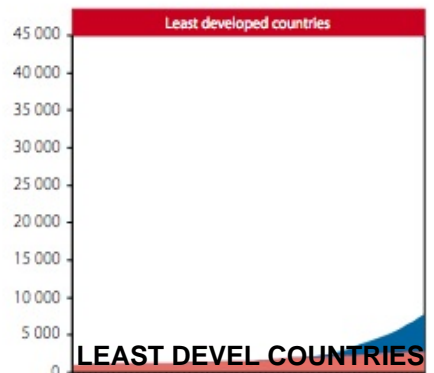
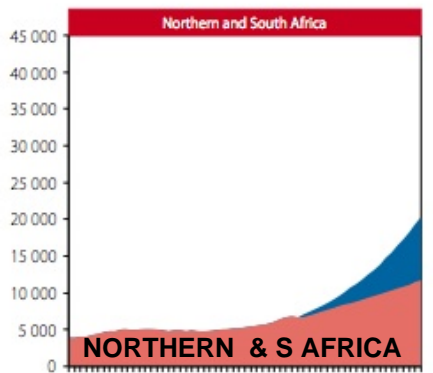
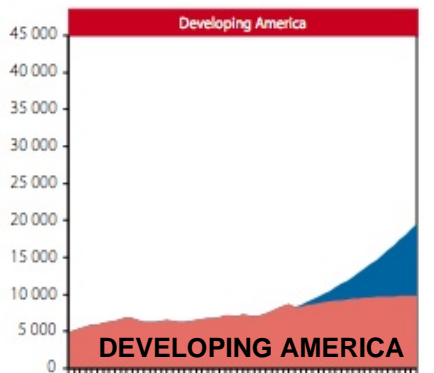
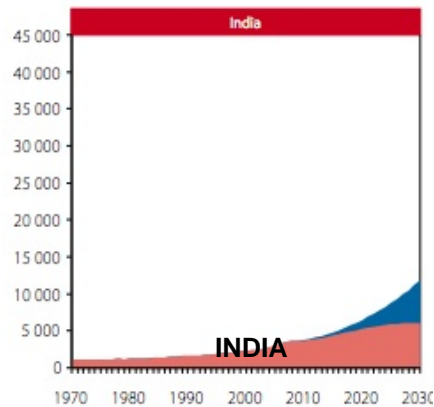
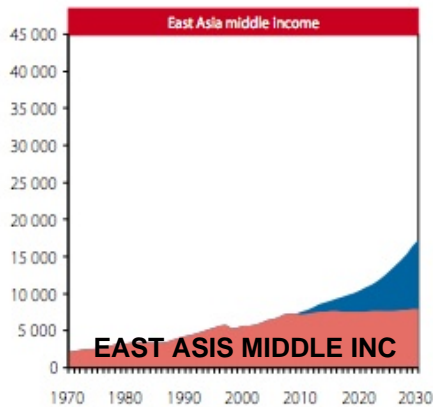
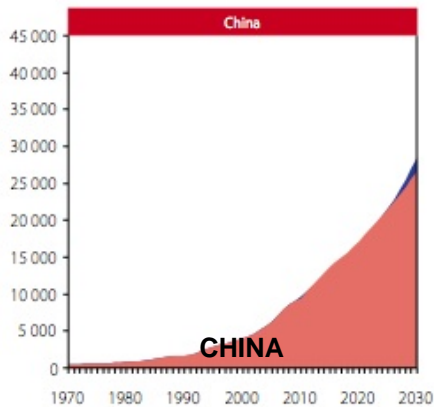
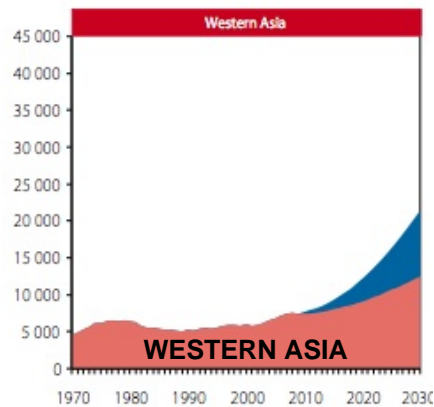
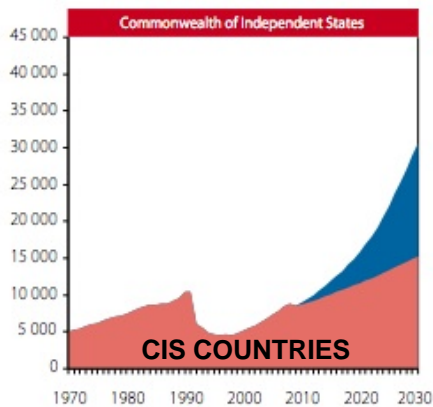
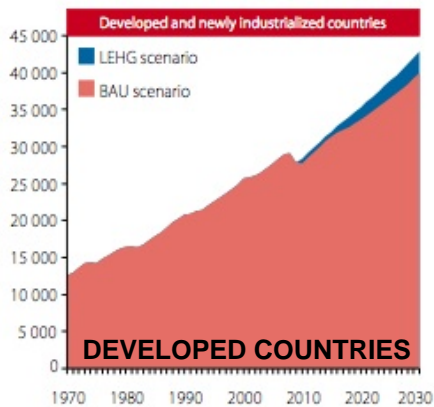
Sources: Grubler, Nakicenovic and Riahi (2007), and Nakicenovic and Riahi(2007), and IIASA (2007).





Figure II.3  
Major categories of abatement opportunities





**Q:** What impact would low emission / high growth policies, targeted at the energy sector, have on the world's economy?

**A:** From positive to dramatically positive

- Business as usual
- Low emissions/high growth

**Modeling Assumptions:** Increase in public spending by 1-5% GDP / year; related policies directing investments into low-emissions energy; increased market access

Source: United Nations / DESA, simulations using the Global Policy Model



# Feed-In Tariffs: Ready for **Scaling Up**

- A “Feed-In Tariff” is a guaranteed **price support** for renewable electricity development
- Payment on delivery to the grid is made to the producer, at a subsidized rate that guarantees profitability and **speeds build-out**
- Over **50 countries** have such policies on the books, most famously Germany and Spain
- We can learn from these national models and scale up to a **coordinated global program**

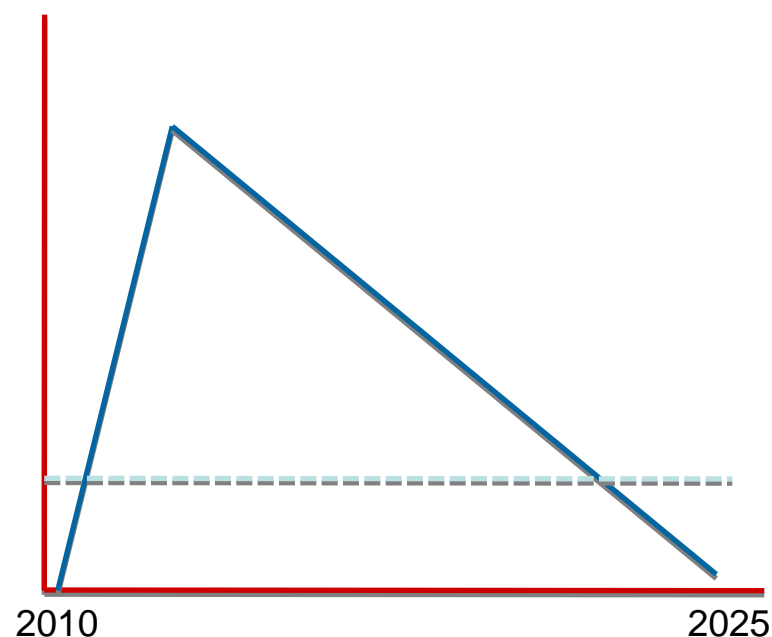


Snapshot of a web article from the New York Times, 22 July 2009



# A Global Renewables Feed-In Program

- New global funding mechanism guarantees feed-in price supports
- Payment from the fund is on delivery to the grid
- National implementation of feed-in and other policies
- With price guarantees, other public and private sector financing can be counted on to support infrastructure build-out
- The price guarantees are reduced over time, until the financing mechanism can be retired



*Towards an Action Agenda:*

## Elements of “The Big Push”

**1. *Integrate the climate and development agendas at the global level***

The challenge of controlling greenhouse gas emissions, and the challenge of providing clean, renewable energy to all the world's people, are one and the same

**2. *Commit to the fastest possible deployment of renewable energy in the developing world***

The faster the deployment of renewable energy in the developing world, the greater the benefits to everyone, everywhere



*Towards an Action Agenda:*

## Elements of “The Big Push”

### ***3. Create a large-scale investment fund to support that deployment***

Commit significant new funds to the deployment of renewable energy technologies and delivery systems in the developing world, through a new, targeted financing mechanism.

### ***4. Front-load the investments in time, to accelerate innovation and to bring costs down quickly***

The next ten years are a crucial window of opportunity; front-loading investment in renewables insures against lock-in of older, emissions-heavy energy paths





*Towards an Action Agenda:*

## Elements of “The Big Push”

**5. *Adopt a global feed-in tariff program, to support national-level implementation, on a "pay for results" model***

Feed-in tariffs are a proven solution that can be greatly expanded, and supported with global funding guarantees, to back up national-level implementation.

**6. *Strengthen national-level policies to steer industrial development in renewable energy directions***

Opportunities to "leapfrog" to climate-friendly industries and technologies will be missed if national industrial policies favoring renewable energy are not adopted.





*Towards an Action Agenda:*

## Elements of “The Big Push”

**7. *Supplement core global financing with tradable offsets (and not the other way round)***

Relying on the market in tradable emission rights, at both the national and international level, has been proven insufficient to drive change at the pace and scale needed; this mechanism cannot replace core investment funding from the developed world.

**8. *Facilitate implementation with large-scale technical support on the extension agent model***

Massive programs in training, R&D, policy and technical assistance will be a job-generator in the near-term, and build the human capital necessary for sustaining a renewable energy transition in the longer term.



*Towards an Action Agenda:*

## Elements of “The Big Push”

- 9. Couple the financing mechanisms to the cost curves, phasing out support when it no longer needed***

At the right scale of investment, costs will fall at an accelerated and predictable rate, which frames the program as time-limited.

- 10. Start the program at whatever level of commitment the nations can agree to, and grow it from there***

While an early, large-scale commitment is far preferable, these proposed strategies and programs will provide considerable benefits at any scale of initial commitment.



# Please read the World Economic and Social Survey 2009



Download free or purchase a hard copy:

<http://www.un.org/esa/policy/wess/>

If you are interested in the emerging “Big Push” strategy briefing for decision-makers (coming for Copenhagen), please visit the website for the Division for Sustainable Development

<http://www.un.org/esa/dsd/>

(Also on Twitter, Facebook etc.)

