

Climate Thailand Conference 2011

Climate Change and Green Economy: pathways to Response

Bangkok, 18-19 August 2011

LOW CARBON GREEN GROWTH: New development pathway for Asia-Pacific

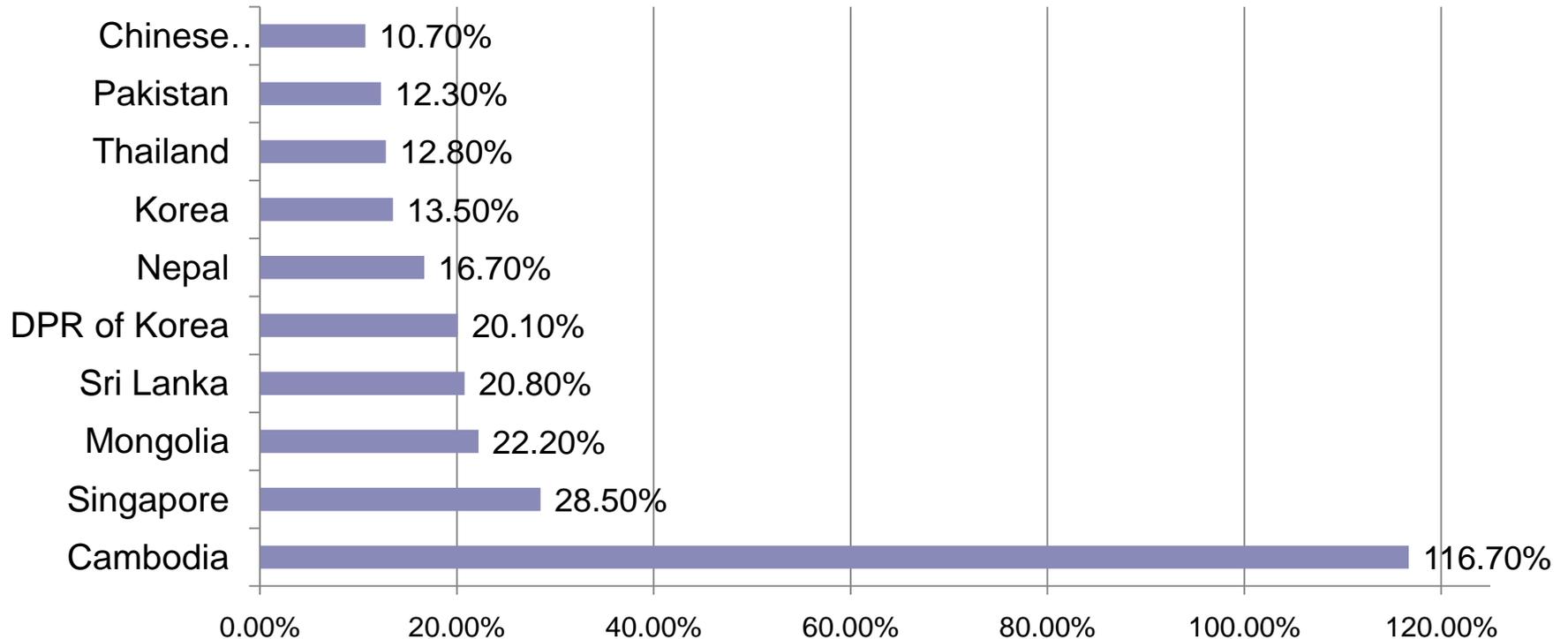


Rae Kwon Chung

Director

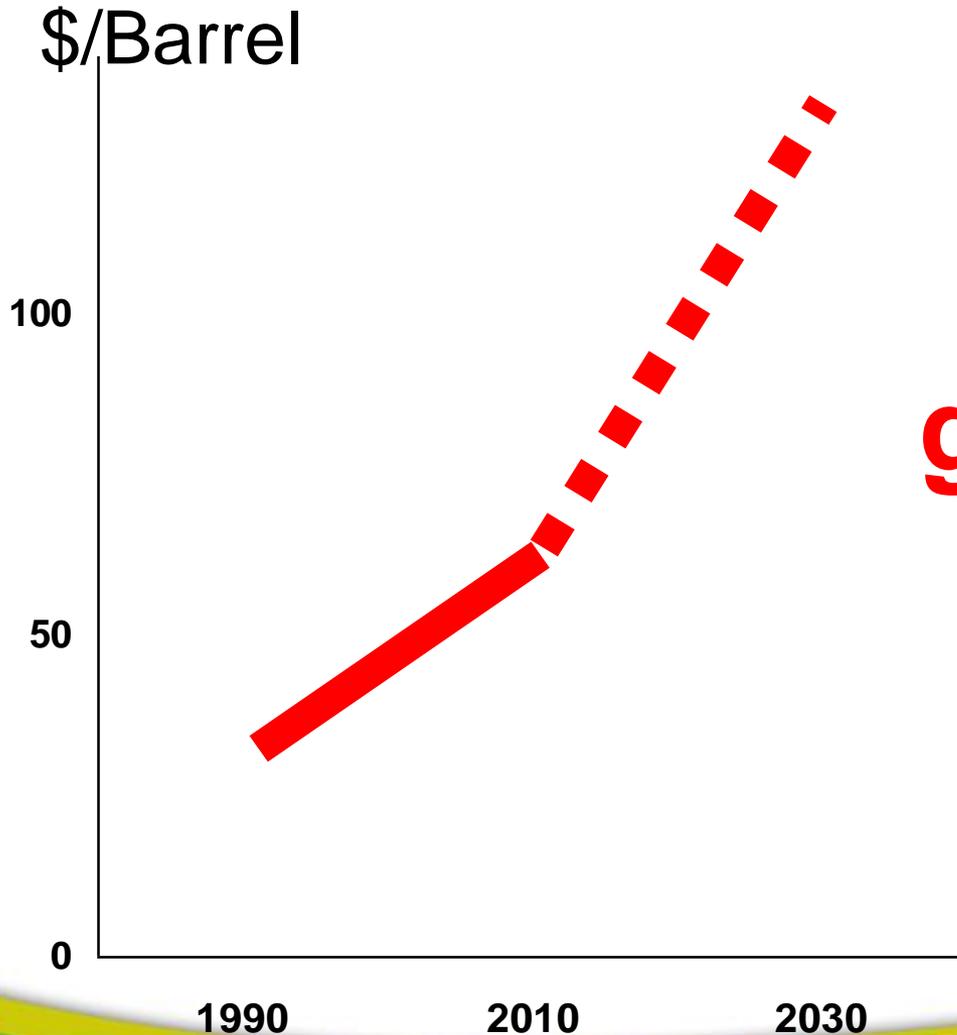
Environment and Development Division

2008 Net Energy Import Costs (as a percentage of GDP)



Estimated based on 2008 IEA data on net energy imports. Includes Coal & Peat, Natural Gas and Oil imports.

Oil Price Forecast



**Rising
fossil-based
electricity
generation cost**



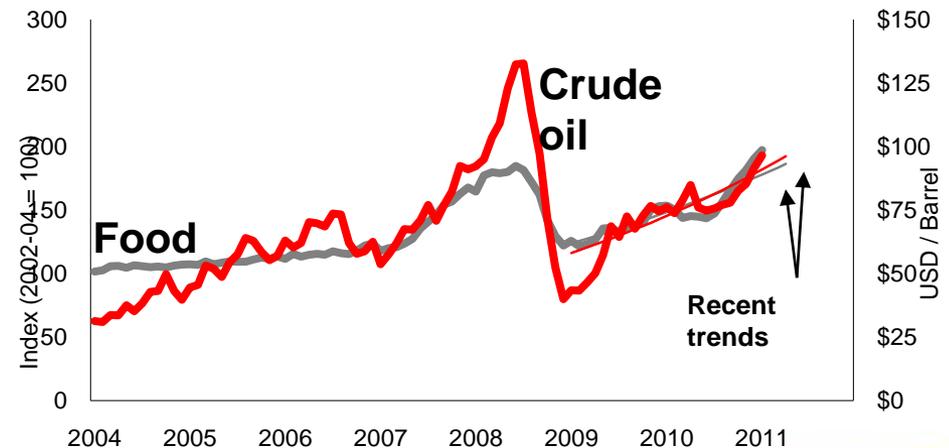
Resource constraints

2011 → 42M fall into poverty
2010 → 19M affected by rising energy and food prices

- OECD/FAO: food prices ~ rise by 30% over the next 10 years. This year's food prices, has risen by 40% over the past year

Rupert Neate, "Food price explosion 'will devastate the world's poor'", The Guardian, Friday 17, 2011

FAO food price index and Brent crude oil price, January 2004 to December 2010

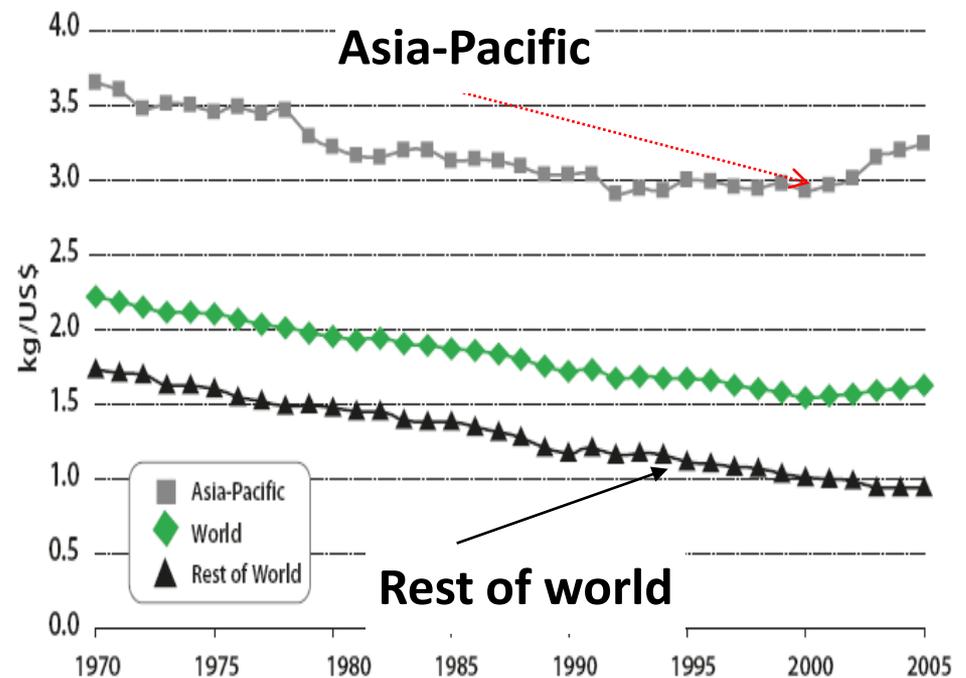


UNSUSTAINABLE RESOURCE USE

- A-P uses $> 3 \times$ resources to produce \$1 of GDP, compared to the rest of the world

**Improving
Resource/Energy
Efficiency is the
key**

Domestic material consumption intensity



Is “brown growth” an option?

NO

Brown Economy (Energy/ Resource/ Carbon Intensive)

cannot continue

due to

rising oil/ resource price

Is Green Growth a conditionality to developing countries' development?

NO

It's an economic strategy for

FOOD/Fuel Crisis,

Oil/Resource Crisis

Resilience against External Shocks

Energy Security , Climate Impact,

to avoid being trapped in Poverty

Scope of Green Growth

Investing in Natural Capital

VS

Greening of the Economy:

- Improving efficiency of the way we use Natural Capital

Efficiency, growth and system change

Energy, Resource, Carbon efficiency: Eco-efficiency:

Tenfold improvement of

Production and Consumption Efficiency of
the whole economy by 2050

**Green Growth: investing in Eco-efficiency
can generate profit, employment & growth**

**Requires Fundamental Transformation of
Economic System**

Extent of system change

Invisible Structure:

change the way we raise tax revenue &
spend (Tax and Fiscal Reform), Value,
regulation, lifestyle, technology, innovation

Visible Structure:

change the way we design our city,
building, transport, water, energy,
waste system

**Government has to jump start
the system change**

**As Green Growth cannot happen
automatically by the market**

Due to Price & Time Gap

ESCAP Green Growth: MCED 2005

- UNEP Green Economy 2008
- OECD Green Growth 2009



ESCAP: 5 tracks for Green Growth Roadmap

1. From Quantity to Quality of Growth
2. Internalizing Ecological Price:
ETR/EFR
3. Changing the design of Infrastructure
4. Promoting Green Business
5. Establishing Low Carbon Economics

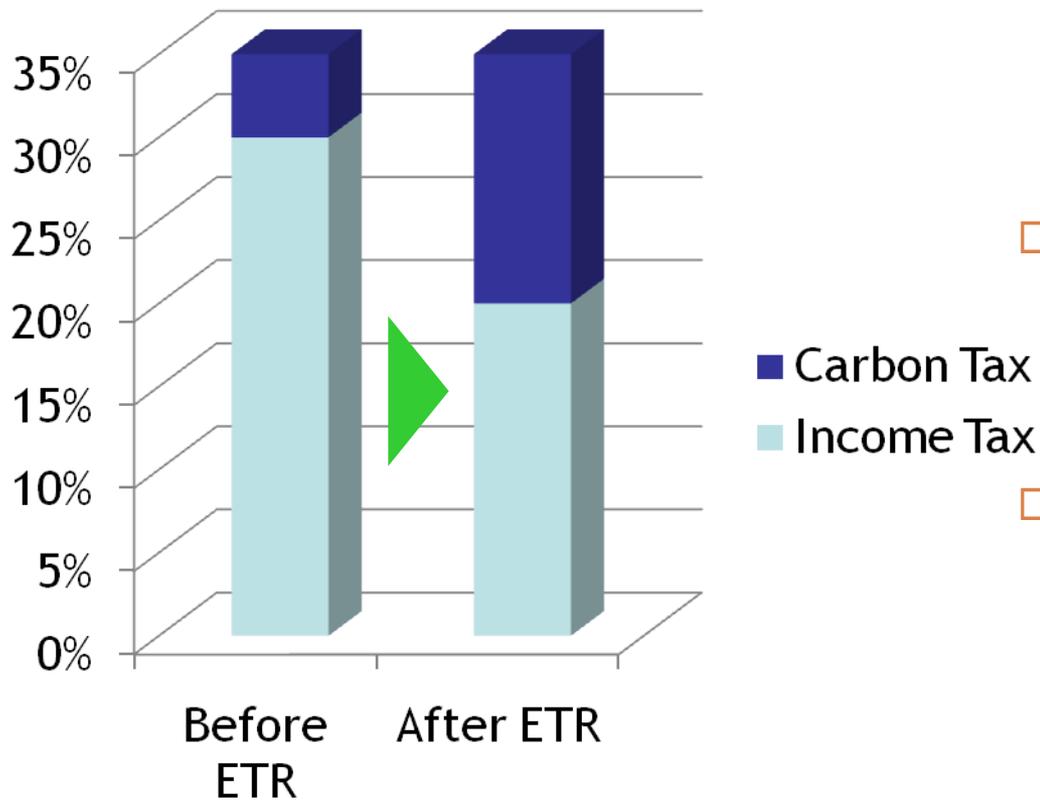
1. From quantity to quality of growth

- Focusing only on increasing growth (i.e. increasing GDP), will in the long run undermine the prospects of sustaining it
- Rapid growth in Asia-Pacific lifted millions out of poverty, inequalities increased and natural capital eroded
- Countries in the region need to shift to a paradigm of quality of growth
 - ▣ China
 - 11th 5-yr plan – green targets mostly met (low hanging fruit)
 - 12th 5-yr plan – Evolution from energy and resources consuming development to low-carbon and green growth - integration of economic, climate and energy agendas
 - ▣ Thailand
 - Sufficiency economy
 - ▣ India
 - Integrate ecological values into national accountings

2. Internalizing ecological prices

- The ecological crisis is happening because no price assigned to ecological goods and services - but these are becoming more scarce and valuable
- A fundamental **change in price signals** essential to shift economy on a sustainable track
- This change in price signals must not hamper competitiveness, reduce prospects of economic growth and affect the poor
- This requires policy tools such as Ecological Tax Reform (**ETR**) and Ecological Fiscal Reform (**EFR**)
 - ▣ Shift tax base from goods (labour, corporate tax) to bads (pollution, carbon)
 - ▣ **Revenue neutrality**
 - ▣ **Double dividend** (more growth and jobs, less pollution)

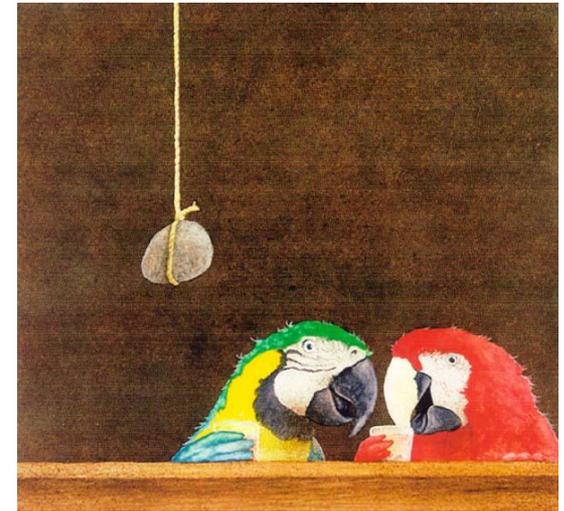
Revenue neutrality



- Keeping overall tax revenues the same
- Tax Reform, Not “More Taxes”
- Political feasibility & public approval could increase

Double dividend

Improving ecological efficiency
&
Increasing Employment and
Growth simultaneously



- UNEP Modeling: Higher economic growth by 2050
- ILO study: 14.3 million net new jobs
- COMETR: In Finland, Denmark, Germany, Netherlands, UK and Sweden
 - positive GDP gains (up 0.5 percent) as a result of ETR
 - Fuel demand: -2.6% on average/ CO2 emissions: -2-6%
- ESCAP: In Asia-Pacific ETR could increase GDP up to 2%

ESCAP MODELLING:

POSITIVE GDP IMPACT UP TO 2%

Country	CO ₂ reduction	GDP impacts	Employment	Recommended taxes to be reduced		
				GDP	Employment	Utility
Japan	-3.01, -2.77	+0.08, +0.22	-0.03, +0.04	CPR	LAB	LAB or CON
Korea	-8.64, -7.30	-0.22, +0.74	-0.13, +0.08	CPR	LAB or CON	CON
China	-21.10, -15.58	-1.85, +1.91	-0.44, +0.68	CPR	CON	CPR
India	-14.97, -17.68	-0.97, +0.54	-0.31, +0.32	CPR	CON	CON
Thailand	-6.72, -3.77	-0.81, +1.53	-0.36, +0.54	CPR	LAB	LAB
Malaysia	-9.37, -7.24	-0.81, +1.46	-0.53, +0.42	CPR	CON	LAB
Cambodia	-10.86, -8.60	-0.39, +1.01	-0.27, +0.26	CPR	LAB	LAB or CON

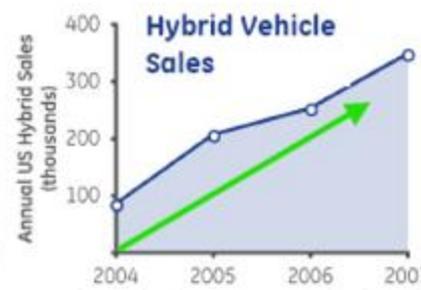
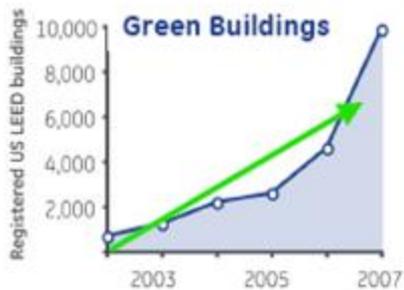
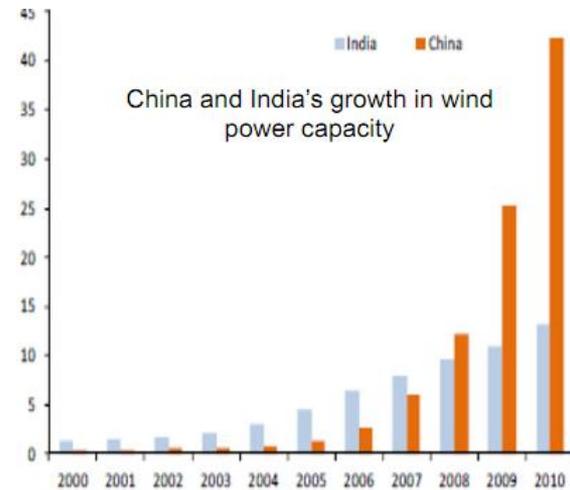
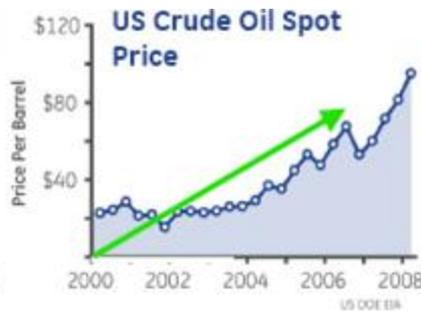
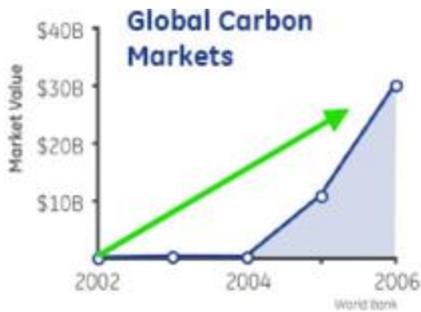
3. Changing the design of infrastructure

- The way infrastructure is designed and built is critical in determining the eco-efficiency and competitiveness of a country
 - **Buildings**: 30% GHG emissions, 40% energy use
 - **Transport**: 23% CO2 emissions, main consumer of fossil fuels
 - **Traffic congestion** costs – e.g. Bangkok = 6% GDP
- Asia-Pacific invest **US\$ 10 trillion** in infra over the next ten years
 - Lock-in effect of infrastructure
- Investing in sustainable infrastructure will be a key driver for economic growth and employment

- Change the way we design cities: **from urban sprawl to eco-cities**
- Change the way people move: **from private cars to public transport, from road to rail**
- Change the way we design building: **from energy consuming building to energy saving building**
- Change the way we supply and consume energy and water: **improving eco-efficiency of utilities infrastructure**
- Change the way we manage waste: **from the end-of-pipe to circular economy & 3R**

4. Green as a business opportunity

- “Green” sectors among the most dynamic worldwide
- Value of green goods already at US\$ 4.7 trillion in 2008
- But governments need to create enabling conditions



5. Low carbon economics

- Progress in climate negotiations very slow because of perception that climate action be net cost
- Recent econometric analysis shows otherwise (e.g. UK, California, UNEP) → climate action can bring higher growth
- Governments need to take appropriate action to make this double dividend happen
- Important to reduce risk and uncertainty for the private sector (predictable and transparent policies with enough adjustment time) and cost-effectiveness (e.g. carbon pricing)

Turning crises into opportunities is like surfing waves, not drowning!

Only the brave jumping into the water can swim and enjoy surfing



Thank you for your attention

Contact: chung1@un.org

