Green Tax Reform & Ecological Efficiency Pattern of Economic Growth of Asia and the Pacific

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Why Green Tax? Telling ecological truth

“Socialism collapsed because it did not allow prices to tell the economic truth.

Capitalism may collapse because it does not allow prices to tell the ecological truth”

– Oystein Dahle, Chairman of Worldwatch Institute and former Vice President of ESSO Norway
A 2005 United Nations report (SOE2005 of UNESCAP) warned that although one-fifth of Asians still exist on less than $1 a day, "the region is already living beyond its environmental carrying capacity."

But Asia can't wait for the invisible hand to grow a green thumb; its problems are too intractable for that Asia's future has to become one of sustainable "green growth,"
Ecological Status of Global Economy

- Deepening Ecological Deficit
  - Footprint is surpassing Biocapacity

<table>
<thead>
<tr>
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<th>Biocapacity (global ha/person)</th>
<th>Ecological Footprint (global ha/person)</th>
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<td>Asia and Pacific</td>
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<td>Latin America</td>
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<td>North America</td>
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<td>EU(25)</td>
<td>2.2</td>
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<td>World</td>
<td>1.8</td>
<td>2.2</td>
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1. Excluding Central Asia and Caucasus
2. Excluding the latest accession countries

*Source: WWF Study, 2006
Ecological Efficiency to continue economic growth

- 1 billion poor living under 1 dollar a day, \( \frac{2}{3} \) of world poor live in Asia & Pacific
- To continue economic growth necessary to alleviate the poverty, without compromising limited ecological carrying capacity,
- Then we have to improve Ecological Efficiency of our economic growth
What is Ecological efficiency?

- Minimizing Ecological Costs = Resource Depletion + Pollution Impact
- Current paradigm: Economic Efficiency = Minimizing Market Costs
- But Market Price < Ecological Price
- Economic Efficiency ≠ Ecological Efficiency
Why Ecological Efficiency?

1. Increasing demand for Quality of Life
   • Economic Efficiency \( \rightarrow \) GDP growth \( \rightarrow \) but not improving quality of life, or happiness (Richard Layard. LSE)
   • Early stage of dev: GDP growth could be priority
   • But GDP growth alone enough?

2. To continue economic growth
   • Rising natural resource price China: already focusing on Resource Efficiency to continue growth
• Economic Growth
• Necessary to Improve Quality of Life as well as to
• Continue Economic Growth without compromising limited ecological carrying capacity
• Ultimately to make our economic growth pattern to be compatible with limited ecological carrying capacity
Green Growth as new paradigm

- Current Growth Pattern based only on “Economic Efficiency”
- has to be changed to
- “Green Growth” pattern based on “Ecological Efficiency” paradigm
- To make Growth compatible with limited ecological carrying capacity
Green Growth as new paradigm for AP

- MCED5, March, 2005, Seoul, Korea formally adopted Ministerial Declaration on GG
- Korean Government: Seoul Initiative on GG
- UNESCAP: GG Policy Dialogue focusing on
  1. Green Tax
  2. Sustainable Infra
  3. Sustainable Consumption Pattern
  4. Greening the Business
  5. Ecological Efficiency Indicator (EEI)
How to maximize Ecological Efficiency?

- “Economic Efficiency” driver: Market & Price
- “Ecological Efficiency” driver: Not Market / Price then Who & How
- Driver: should be “Government”
- Tool: Green Tax: direct tool to close Gap between Market Price & Ecological Price
Countries exhibit different eco-efficiency patterns:

- US < Japan, EU
- Korea < Singapore:
- China: what kind of growth pattern? Big question?

May 2006; announced 6 measures for GG Resource Efficient & Env Friendly Society
**Different Patterns of Growth**

*(global hectares per capita, 2002)*

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<thead>
<tr>
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<th>Ecological Deficit</th>
<th>Bio-capacity</th>
<th>Eco-footprint</th>
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<tbody>
<tr>
<td>Rep. of Korea</td>
<td>-3.8 (0.6 / 4.4)</td>
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<tr>
<td>Japan</td>
<td>-3.5 (0.8 / 4.3)</td>
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<td>-0.8 (0.7 / 1.5)</td>
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<tr>
<td>US</td>
<td>-4.8 (4.6 / 9.7)</td>
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<td>UK</td>
<td>-4.0 (1.6 / 5.6)</td>
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*Source: WWF Study, 2006*
Transport: Example of Economic Eff ≠ Ecological Eff

- Rail/Public Transport: low economic eff, high ecological eff
- EU & Japan: Rail, Public Trans
- Korea: mainly highway, private car traffic congestion cost (4.4% of GDP)
- Japan: 0.79%, US: 0.65%, UK: 1.25%, Bangkok: 6%
Eco-efficiency Pattern of Growth (EPG)

• As countries show different EPG/lifestyle:
  – Japanese (4.3) vs American (9.7)
  – Small Car: Korea (4.4) 4%, Japan/EU 24%
  – Large car: US 60%, Korea 30%, Japan/EU 20%

• Need to measure EPG
  → Identify the factors affecting EPG
  → Explore options to improve EPG

• ESCAP: developing EEI
Pattern of Growth ???

• If Different Paths of Growth available, then
• How to differentiate different path of growth?
• How to measure EE of Growth?
• What are the factors affecting EE Pattern?
• What pattern for China?
• ESCAP aims to encourage EE growth of AP developing countries.
ESI/EPI vs Eco-efficiency Indicator (EEI)

- Yale and Columbia (Davos): ESI, EPI
- ESI: Argentine(9), Brazil(11), Gabon(12), Congo(39), Indonesia(75) > Korea(122)
  - measuring env challenge a country is facing → country with large carrying capacity tends to end up with high ESI
- EPI: high income(Korea42) > low income countries
  - measuring env performance towards international goals → country with high income tends to have high EPI
- So far no indicator measuring EE pattern of economic growth
- That’s why we Need to develop EEI
How can we change the growth pattern?

- As Growth Pattern = Prod + Cons pattern
- EE of Prod/Cons Pat has to be changed
- Prod: PC easy to target, some progress
  - RE rising resource price pushing
- Cons: difficult to change lifestyle
  - PC some progress in waste/recycle
  - RE deterioration as income goes up
Sustainable Consumption and Production

- Consumption
- Production

Pollution

Res-efficiency

EEI

Env Kuznet Curve

Conventional Approach

Green Growth Approach

REEF China
Consumption needs more focus for the future of AP

- Production Pattern: improve as income goes up
- Consumption pattern: expected to deteriorate.
  - no empirical evidence of EKC for EE of Cons.
- Consumption pattern will be more critical in the future as resource price goes up
- New Message: pollution control alone is not enough, Demand Side Management to control consumption will be more critical
SC = EAST meets WEST

Conventional Western Culture

Material Possession/Consumption

New Asian Consumerism

Happiness

Desire

New Western Consumerism

Conventional Asian Culture

ENVIRONMENTALLY SUSTAINABLE ECONOMIC GROWTH FOR THE WELLBEING OF ALL
Green Tax Reform

- Changing tax base from INCOME to POLLUTION
- Could be the Most Powerful Tool to improve EE pattern of economic growth, production & consumption pattern, Pollution control, resource efficiency, demand side management, sustainable infrastructure,
UNESCAP provides capacity building in collaboration with KIPF:

- First Green Growth Policy Dialogue: Towards Green Growth in Asia and the Pacific Eco-efficiency through Green Tax and Budget Reform, held November 2005, Seoul ROK – Bangladesh, Cambodia, China, India, Indonesia, ROK, Russian Federation, Thailand, Vietnam;

Prospect for Green Tax Reform in AP

- Lack of Clear Understanding:
- Mistaken with earmarked Environment Tax, as New & Additional Tax
- Revenue Neutrality (Reduction of Income Tax) not publicized at all
- Deep Concern for Competitiveness/Income Regressiveness
- Revenue Neutrality/Double Dividend: has to be widely publicized with example
Points to be clarified: Green Tax is

- Changing **tax base from income to pollution**: Not new & additional tax
- **Revenue Neutrality**
- Linked with **income tax reduction**:
- Can be designed not to damage industrial competitiveness or income regressiveness.
- Can have **Double Dividend**.
Challenges to overcome

- **Inter-ministerial Coordination:**
  - For Finance Ministry: env not my job
  - For Env ministry: no incentive to push, prefer earmarked env tax as they prefer to get the revenue from env tax
- **Small income tax volume:** many low DCs
- **Strong negative perception:** env tax is a burden for economic growth, zero sum game
AP Needs Examples to Follow

• Green Tax Reform: unbelievably little known and publicized in Asia,

• Urgently need good examples from Europe to be widely publicized to policy makers & media as well.

• ESCAP aims to function as channel to Asia: already organized 2 workshops on green tax

• Other focus areas of ESCAP: Sus Infra, Consumption pattern, Climate Change
Investing in Ecological Eff of Infra

- EE concept → to any infra development & investment
- Ecological Costs of long term use of Infra should be given higher weight in current EIA or SEA: Rail vs Highway, new airports & amusement parks with maximum public transport accessibility
- Transport, Energy, Water, urban planning
- Building Insulation, Water Recycling, etc.
Demand Side Management:
Sustainable Consumption Pattern

• Purchasing power of Asian consumers increasing and their EE is rapidly deteriorating; conspicuous consumption,

• Demand side management to make consumers pay for their ecological costs of consumption:

  Consumer Right vs Consumer Responsibility

• Road & water pricing, energy tax, CO2 tax, congestion charge (London)
Climate Change, classical case where

- economic efficiency ≠ Ecological Efficiency
- Climate Action (CA): critical for EE of growth
- As oil price goes up: CA compatible with economic efficiency
- Energy conservation = Good for Economy
- Climate change action = Bad for Economy ?????
- Energy Cons = Climate Action
Climate Regime After 2012

• Non-Annex 1 commitment issue: deadlock
• CDM: can be redesigned as incentive mechanism for non-annex 1 action, as unilateral CDM projects
• Non-Annex 1 actively initiating CDM projects: about 60% unilateral CDM
• Annex 1: prefer buying CER to investing in CDM
• Volume of CDM rapidly increasing: program CDM
• Unilateral CDM: proposed at COP 6 by Korea, approved in April 2005, took 5 years.
CER discounting

- CDM can be redesigned as global reduction mechanism if linked with CER discounting scheme
- As volume of CDM increases, it could replace national target/commitment
- Stabilize CER price, differentiation of discounting ratio
- Target: hot air risk, CER discounting: no hot air risk
CDM Projects linked with CERs Discounting Scheme

No CER Discount

- All CERs traded
- No global reduction

With CER Discount

- CERs discounting rate at 50%
- Discount CERs retained as net global reduction

No Global Reduction

- Non-Annex I
- Annex I

Net Global Reduction

- Non-Annex I
- Annex I

ENVIRONMENTALLY SUSTAINABLE ECONOMIC GROWTH FOR THE WELLBEING OF ALL
ESCAP keen to

• Provide EE pattern of economic growth to AP developing countries
• In particular by promoting Green Tax, Sus Infra & Consumption Pattern, EEI,
• Promote climate action as Green Growth
• Promote CER discounting scheme to break impasse regarding Non-Annex 1 commitment after 2012
A green foundation of cold, hard cash

UN environment official works through Asian governments' wallets

By Thomas Fuller

P eople in Asia are so obsessed with economic growth — money, money, money,” said Rae Kwon Chung, a top United Nations official here. “But not the environment. They just don’t give a damn.”

This is hyperbole of course: Dirty air and contaminated water are rising concerns across the region. But Chung, who runs a UN environment program in Asia, is not averse to being provocative if it makes people listen.

It is not new to anyone who lives in one of Asia’s megacapitals that years of breakneck economic expansion have come at great cost to the environment. New Delhi and Beijing, two of the worst examples, both have levels of air pollution about three times as high as maximum levels suggested by the European Union and United States. But rather than preach the virtues of cleaner air, says Chung, a former South Korean diplomat, it is more effective to aim for the wallet when trying to convince Asian governments of the urgency of the problem. Continued economic growth will not be possible if the environment is neglected, he tells officials.

“Our approach is not only to focus on the environment ministers but the finance ministers as well,” Chung said in an interview at his office in Bangkok. His mantra is green growth. If Asia is profligate with oil, coal, timber and other commodities, prices will spiral out of control and the economic miracle of recent years will fizzle, he said.

“What he’s saying is not that radical,” said Chee Yoke Ling, a lawyer based in Beijing and who specializes in environmental issues. Referring to the concept of green growth, she added, “This was discussed more than 15 years ago.”

“But it was never translated into action,” she said.

Chee said that Chung was right to spread his message among officials from finance and development ministries because that is where the money is and it is those officials who have the power and funds to change government policies.

“Environment ministries in any country are very weak,” Chee said. “They don’t have much sway.”

With the steep rise of commodity prices in recent years, energy-saving policies are being built into the government’s overall strategies. The Chinese government in April increased to 20 percent from 8 percent a tax on cars with large engines, like sport utility vehicles. Taxes on small cars were slashed.

China’s current Five-Year Plan, its outline of economic growth through 2010, stresses energy conservation and sustainable development.

Chung’s central message is that the citizens and leaders of the region should discard any illusion that they can adopt an American lifestyle. There are not enough resources in Asia to support it, he said. The region’s population density is 1.5 times the global average yet the Asia-Pacific region has one-tenth as much available fresh water as, say, South America, according to UN statistics.

“The region is already living beyond its means,” Chung said. “We need to move away from the ‘grow first and clean up later’ approach.”

Yet Chung is more optimistic than many of his colleagues who work on environmental issues. The world should be thankful, he said, that China is not a democracy, because a centrally planned economy can react more quickly to the challenges of the environment. “If it were a completely democratic country, it would be very difficult to control it,” he said. “I think China will be faster than any other country in improving the environment at the local level because they are centrally controlled.”

For all his diplomatic background, Chung shuns the tipsy approach of some of his colleagues. He exudes zeal.

Chung spent 27 years in South Korea’s foreign service, with postings in New York, Paris and Jakarta. He joined the United Nations two years ago because, he said, he wanted to do something “substantive and meaningful.”

His official title is director of the environment and sustainable development division of the United Nations Economic and Social Commission for Asia and the Pacific. It barely fits on his name card.

Chung said that part of his job is trying to change mentalities. Asians tend to think of railways as transport for the poor, so they favor building massive highways. Yet too many roads in densely populated countries is inefficient and bad for the environment, he said.

Chung said that his native South Korea was an example of the problems associated with big cars and wide highways: “Over the weekend, the entire country becomes a parking lot.”

Governments should change their tax systems, he said, increasing levies on gasoline and cars. Rechargeable batteries should be tax-free and disposable ones heavily taxed, he said, because batteries leak damaging chemicals into the environment when they are discarded.

So, what is Chung’s ultimate wish? It involves Angelina Jolie, he said mischievously. Asia needs a star or starlet who can champion the environment as passionately as Jolie has tackled the issue of refugees and displaced people. Governments and UN officials can only do so much, he said.

International Herald Tribune
Last But not Least,

- In promoting Green Tax Reform, Climate Change Ecological Efficiency of Asia and the Pacific
- ESCAP: Need Good Model from Europe and Support from you.
- Keep in mind all your hard work will be in vain if countries in Asia do not follow your model.
- Thank you.
Vision for Asia-Pacific
Green Growth:
Environmentally sustainable economic growth for the improved well being of all
For more on Green Growth see
SOE 2005, GG at a Glance or Urban Environmental Governance
at
www.unescap.org/esd
www.greentgrowth.org