



Shifting towards Ecological Efficiency of economic Growth in Asia and the Pacific



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Major Characteristics of Asia-Pacific

- Rapid economic growth
- Most limited ecological carrying capacity
- High population density, 34% GHG emission
- 2/3 world poor in the region
- **Need rapid economic growth for poverty, compatible with environmental sustainability**



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Paradigm Shift

- Need to change growth “pattern” → GREEN
- Different growth patterns: US, Japan, Europe
- Green Growth: ecologically efficient pattern
- By applying “Ecological Efficiency” concept.
- Otherwise, AP can not continue its growth as its ecological capacity is most limited.



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What is Ecological efficiency?

- **Minimizing Ecological Costs: Eco-Efficiency**
- Ecological Costs =
 Resource Depletion + Pollution Impact
- Current paradigm: **Market Cost Efficiency**
- But Market Price < Ecological Price, thus
- **Market Cost Efficiency ≠ Ecological Cost Efficiency**



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Why Ecological Efficiency ?

1. Increasing demand for Quality of Life

- Economic Efficiency → GDP growth → but not improving quality of life, well-being
- 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



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EE/GG means Low Carbon Society

- Energy is one of the most important ecological resource.
- Improving EE = promoting LCS
- Green Growth (GG) is in fact road to LCS.



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How can we maximize EE?

- Current paradigm: market cost efficiency, price and private sector; main driver
- EE: no driver,
- Government has to drive by improving
 1. **Price-structure**: to close gap between Market and Ecological prices
 2. **Infra-structure**: to provide a physical foundation for LCS



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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



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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. **Eco-Tax Reform**
 2. **Sustainable Infrastructure**
 3. **Sustainable Consumption Pattern**
 4. **Greening the Business**
 5. **Developing EEI (Eco-Efficiency Indicator)**

These are all policy measures for LCS

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Eco-Tax Reform in AP

- **ETR & Environment Tax mixed up**
- **Thus strongly opposed. Even in Japan**
- **Expect model from Europe: climate levy UK**
- **Potentially strong tool for LCS in AP**

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Green Tax Reform: big burden?

- **Environmental Tax: additional tax for Env.**
- **ETR/GTR: No net increase of tax revenue (Revenue Neutrality)**
- **ESCAP trying to present ETR/GTR as powerful tool for LCS, as in EU (Brussels Tax Forum, March 2007)**
 - **Especially in China with NDRC**
 - **Need support from Europe**



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Infrastructure: key for LCS

- **Transport sector: high traffic congestion, Korea(4.4% of GDP), Japan(0.79), UK(1.25) Bangkok(6%)**
- **Many cities in Asia: serious traffic congestion, lack of public transport & rail investment**
- **Energy Efficiency Infra: bldg insulation,**
- **ESCAP Infra project: need partners from Europe for intellectual input**



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EE of consumption pattern ?

- EE of high income class of AP developing country is deteriorating rapidly: large car in Korea 30%, US(60), Japan/Eu(20-30), small car Korea(4%), Japan/Eu(24-30%)
- Production pattern: improves as income goes up, but consumption, will continue to worsen
- Need to link traditional lifestyle (Confucianism, Buddhism)



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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



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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

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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)

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Sustainable Consumption in China

- **China - large cars are selling more than small cars**
- **ESCAP: May 2006, Consumption Pattern Dialogue, China, announced 6 measures for Green Growth**
- **ESCAP plans to hold Sus. & Cons. Pattern meeting linking traditional lifestyle and culture in China**



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EE/LCS: Threat to Business ?

- **Government & Private Sector: fear EE as lowering growth and as burden & extra costs.**
- **EE could be opportunity not threat.**
- **Government has to provide incentives for innovation (Toyota Hybrid)**
- **Massive Investment for EE infra: growth opportunity**
- **EE/LCS can be a driver of growth & business**



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LCS: inevitable choice for AP

- High dependence on oil
- Rapid economic growth
- High vulnerability of energy security
- Volatile oil price
- LCS: inevitable **economic** choice for preparing against rising oil price & resource scarce era



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GG/LCS: soft landing strategy for AP

- Unless growth of EE improves,
- AP can not continue current resource wasting and pollution intensive growth pattern.
- Thus, GG/LCS is a realistic soft landing strategy for AP countries to continue growth in an era of rising oil price



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Climate Change, classical case where

- Economic efficiency \neq 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



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Matter of Vision and Leadership

- **Political Vision & Leadership** critical to adopt EE as new paradigm for transport, climate change, infra, consumption pattern, tax reform (Ex. Singapore)
- **EE: critical condition** for economically competitive, ecologically efficient growth
- Quality of Life & Well-being, Happiness,
- But ultimately it takes **Courage** to change **Status**



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Types of Leadership

- **London: Congestion Charge, mayor's courage & determination**
- **New Delhi: Fuel Switching, Supreme Court legal process,**
- **Singapore: Licensing of private car purchasing, long-term vision**



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Thank You for Your Attention

Comments or more information

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