

Development Challenges of AP

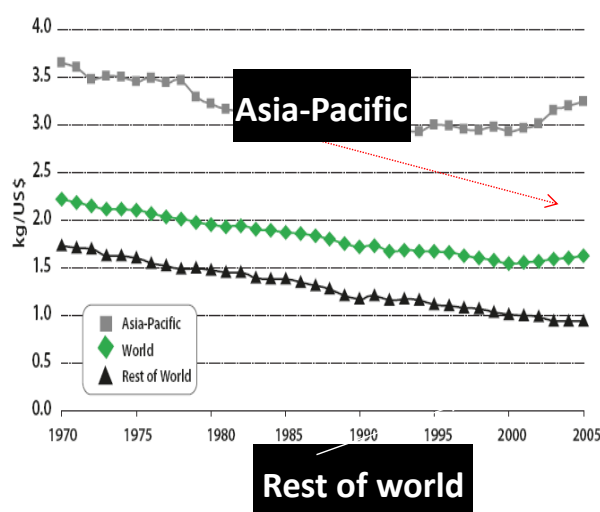
- Unmet MDGs
- Unmet basic needs
- Most Climate Change and natural disasters prone region
- Resource constraints
- Financing, technology, human capacity



UNSUSTAINABLE RESOURCE USE

- Asia-Pacific uses **> 3 x** resources to produce \$1 of GDP, compared to the rest of the world
- **100-year global resource price trend reversing in last 10 years with AP region leading** (Mckinsey & Company, 2011)

Domestic material consumption intensity



UNSUSTAINABLE RESOURCE USE

: Need to urgently improve Resource/Energy Efficiency

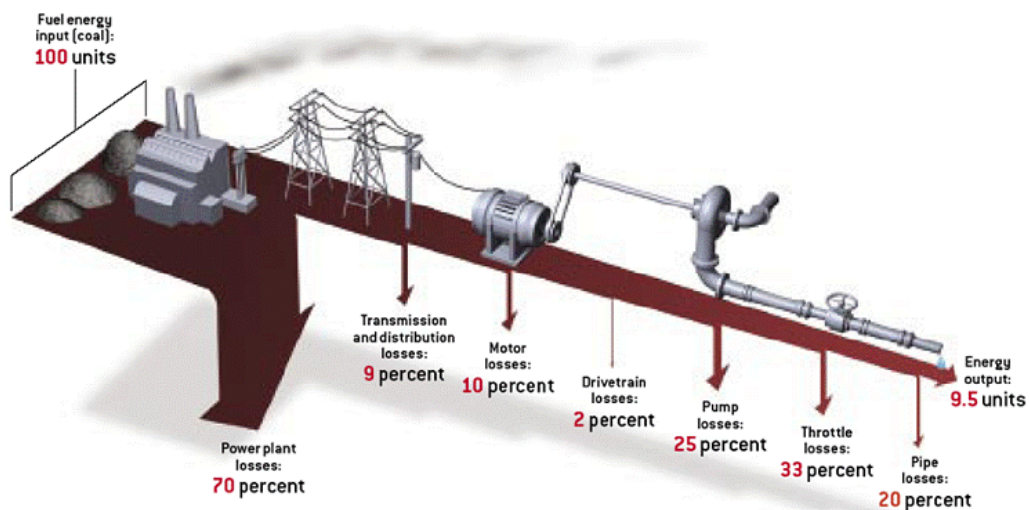
Average annual growth rate of material use

	Average annual growth rate of material consumption (% per year)			
	1970-1980	1980-1990	1990-2000	2000-2005
Asia and the Pacific	3.2	3.2	2.3	6.0
Rest of the world	1.9	0.5	1.3	0.8
World	2.5	1.8	1.8	3.7

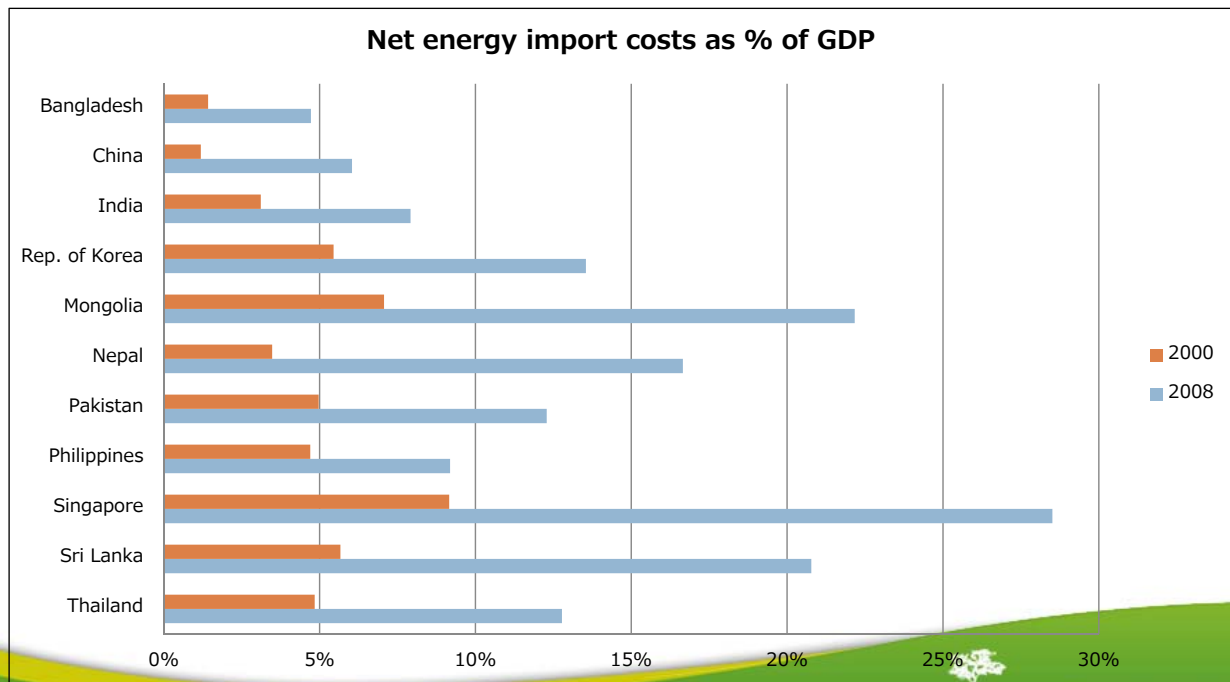
Source: CSIRO and UNEP Asia-Pacific Material Flow Database. Available from www.csiro.au/AsiaPacificMaterialFlows (accessed on 11 July 2010).



Energy Losses in Energy Conversion Chain



Dependence on Fossil Fuels

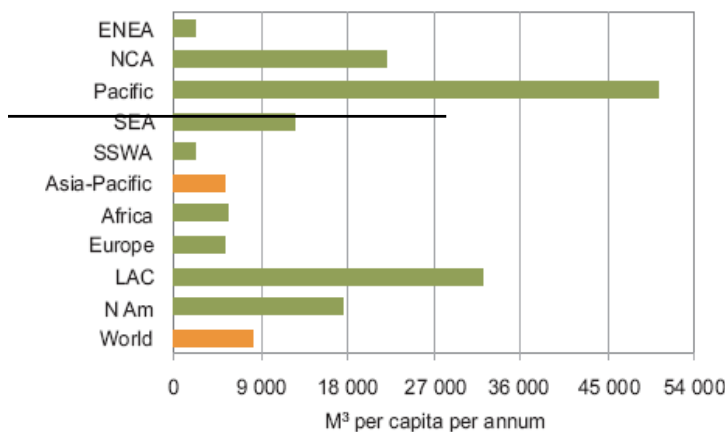


Green Growth

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

Water Resources Constraints

- A trend of increasing unsustainable water resources use leading to significant proportion of the population expected to live in water stressed river basins by 2025

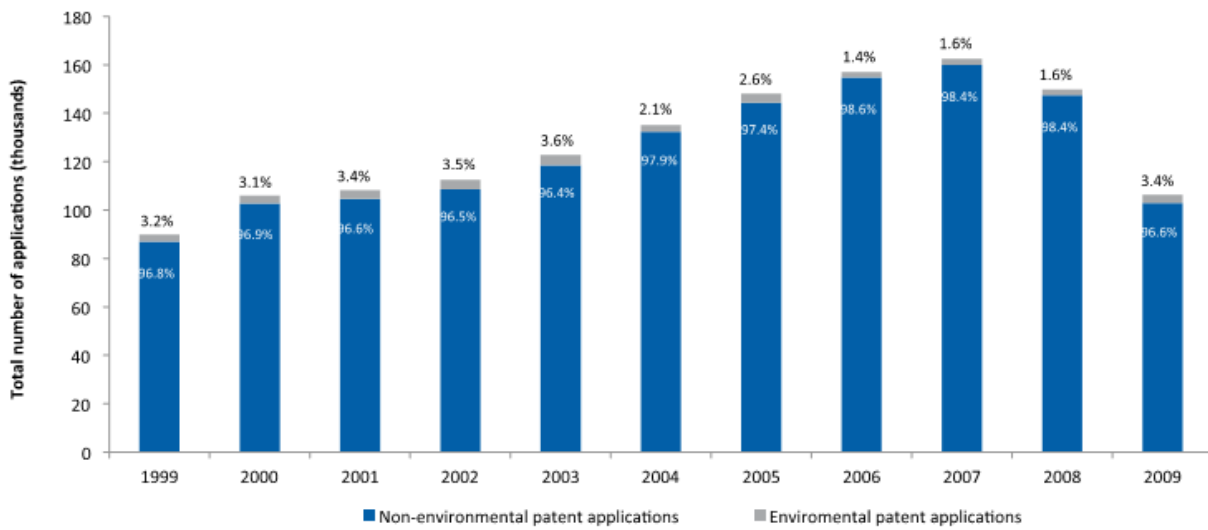


□ UNEP, 2011. Resource Efficiency: Economics and Outlook for Asia and the Pacific

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Status of ESTs Innovation



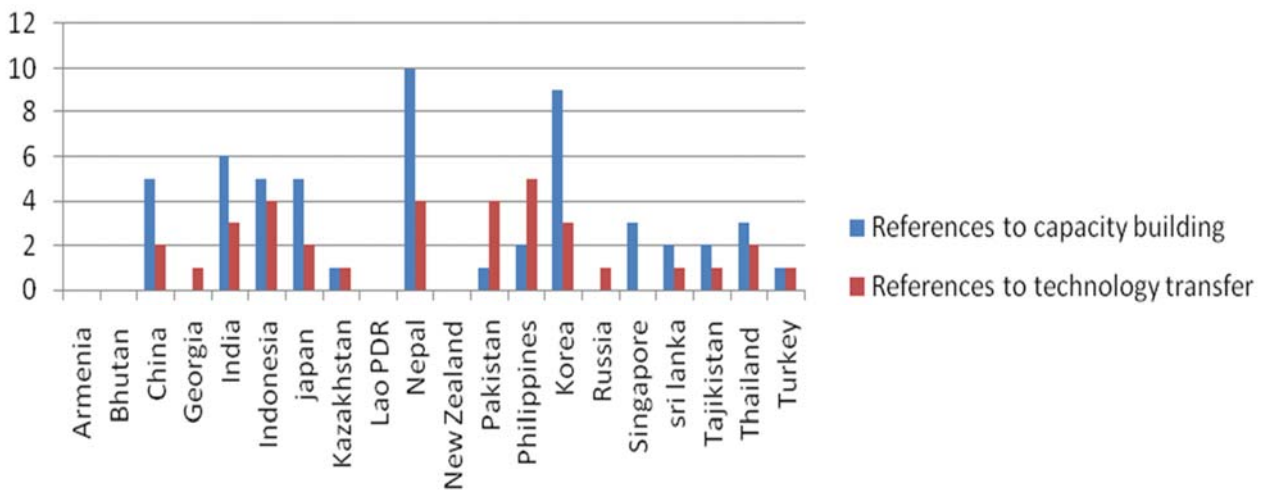
Source: OECD, 2011

Note: For the purposes of this analysis, patent applications were considered environmental if they were in the following fields: Pollution abatement, waste management, renewable energy, electric & hybrid cars, and energy efficiency in building and lighting



Rio+20 Preparatory Process

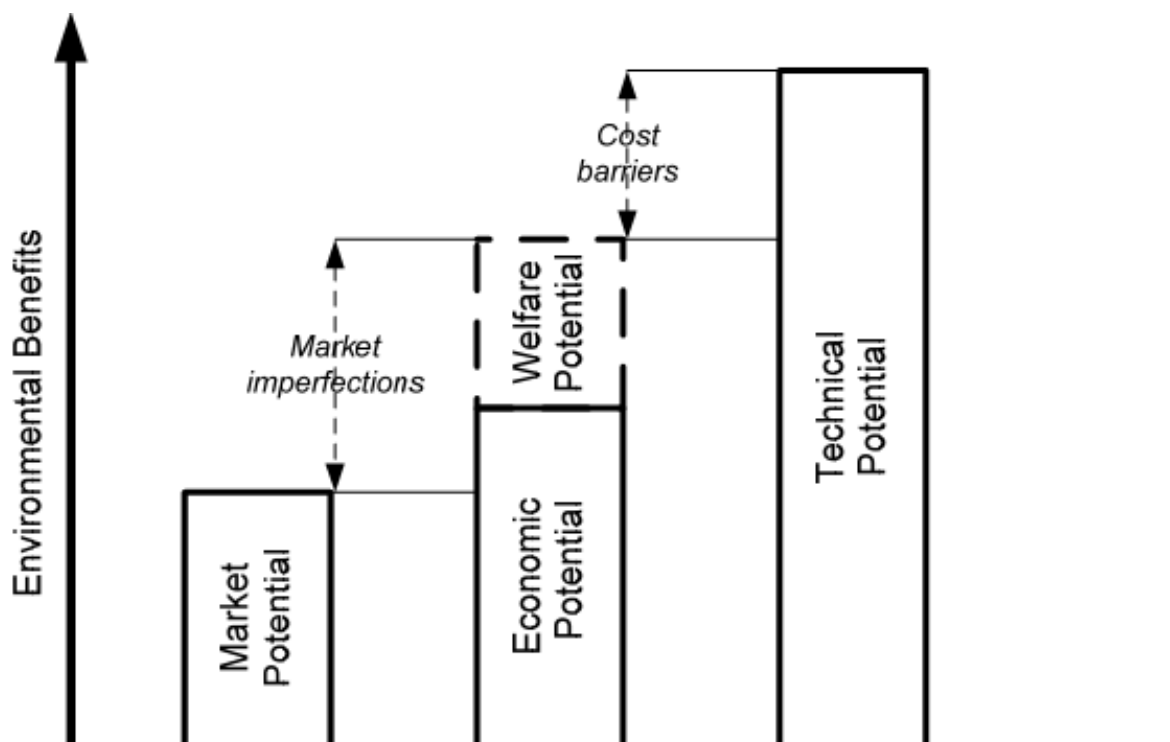
References to capacity building and technology transfer in country submissions



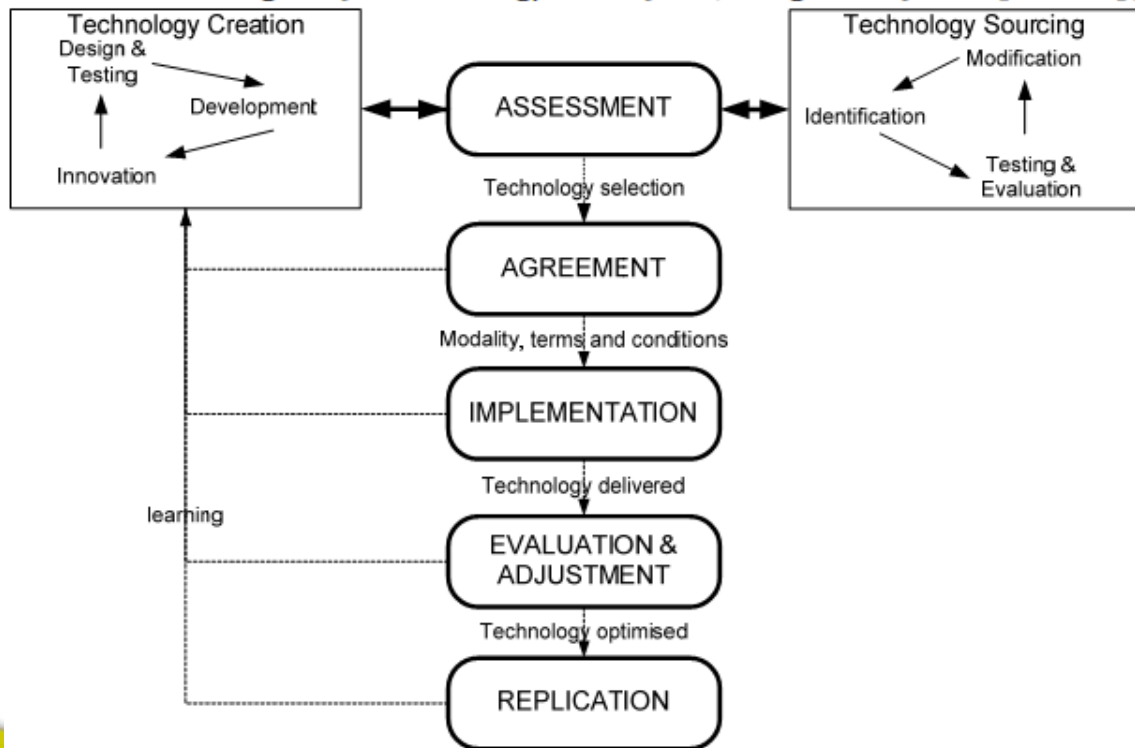
ESCAP Regional Mechanisms Fostering EST Transfer

- Kitakyushu Initiative for Clean Environment;
- Seoul Initiative on Green Growth;
- Astana Green Bridge Initiative: Europe-Asia-Pacific Partnership for Implementation of Green Growth ;
- Asia Pacific Centre for Technology Transfer - www.apcctt.org

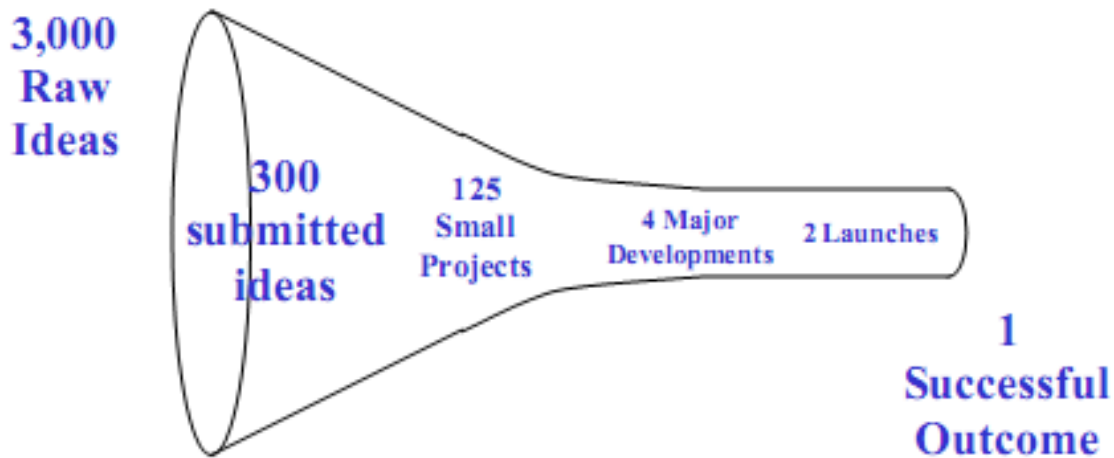
Types of potential of ESTs



Basic Stages of ESTs Transfer



Innovation Funnel



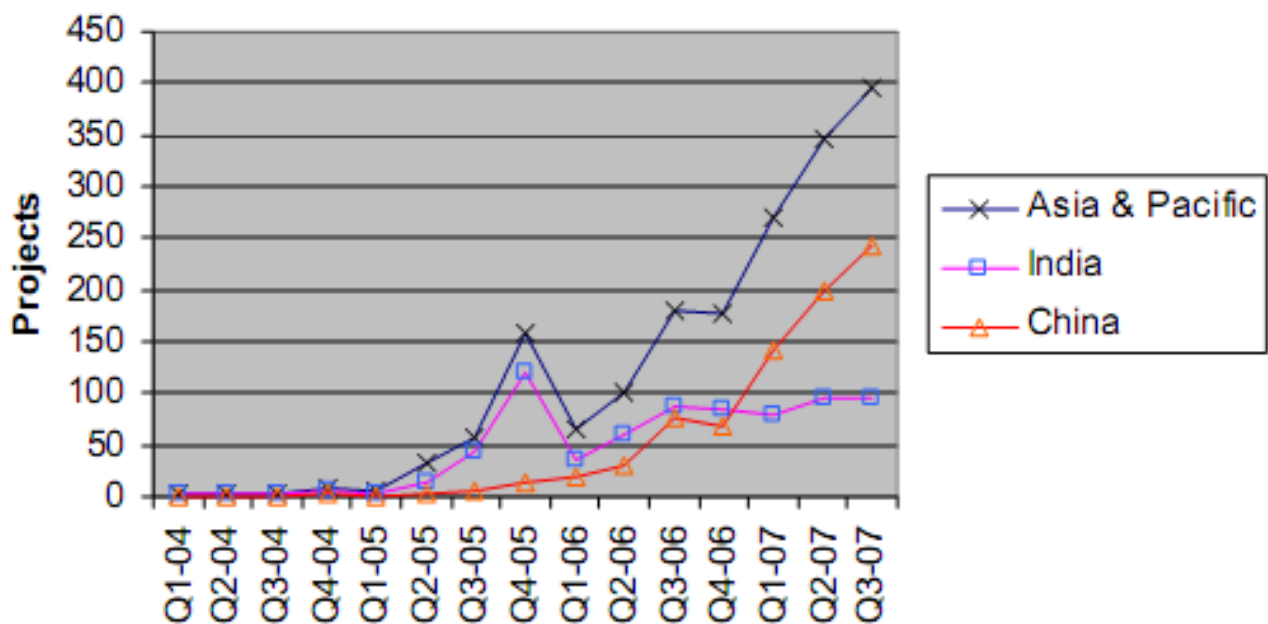
Enabling Mechanisms

- CDM
- Green Taxes
- Innovation Systems and
- Public-Private Partnerships

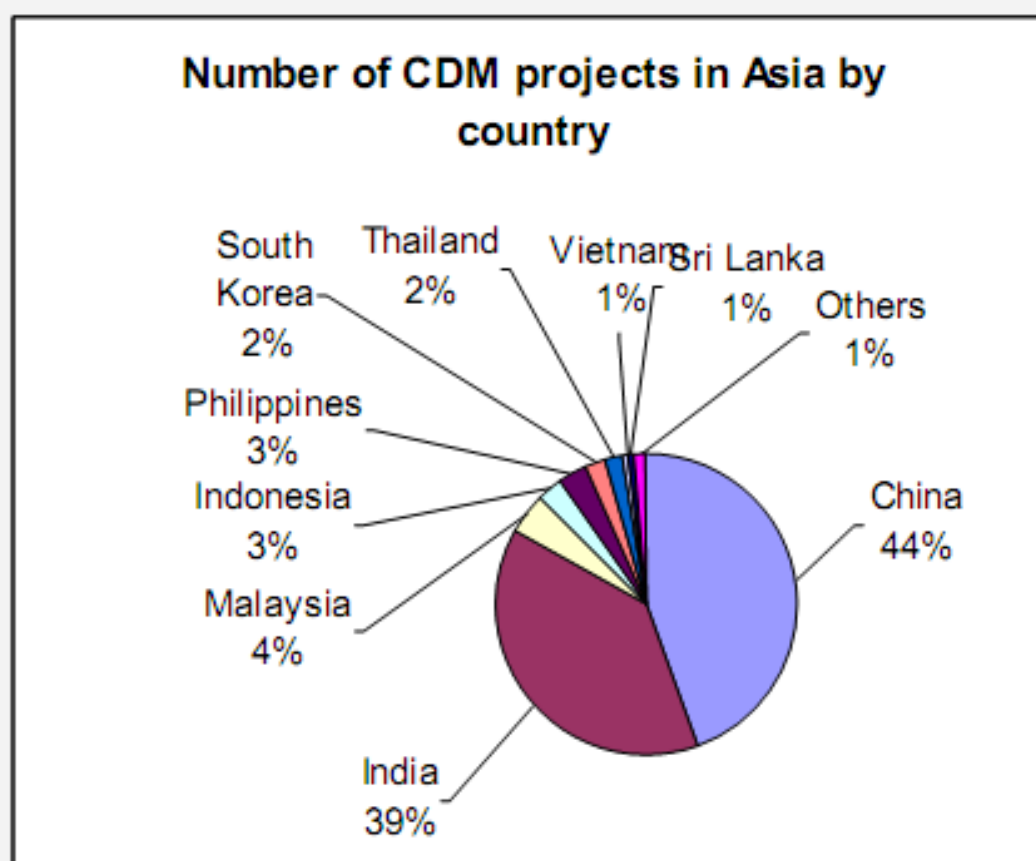


Uptake of CDM Funding in AP

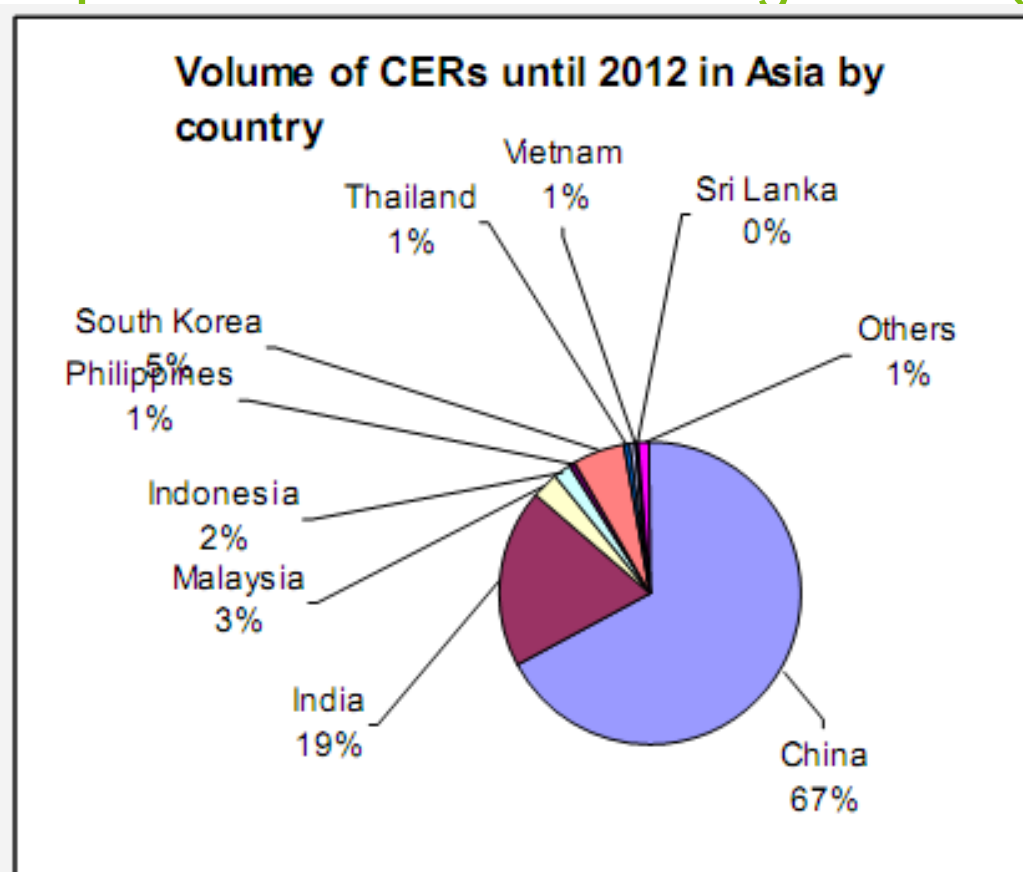
New project in Asia in the pipeline each quarter



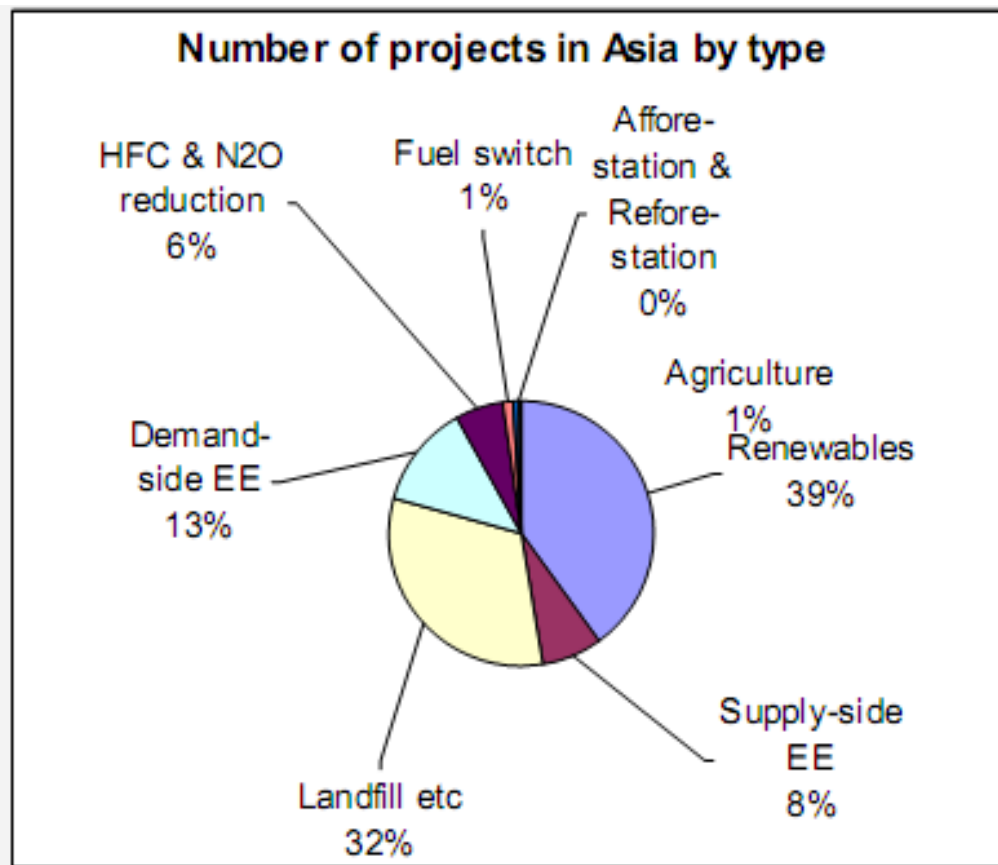
Uptake of CDM Funding in AP



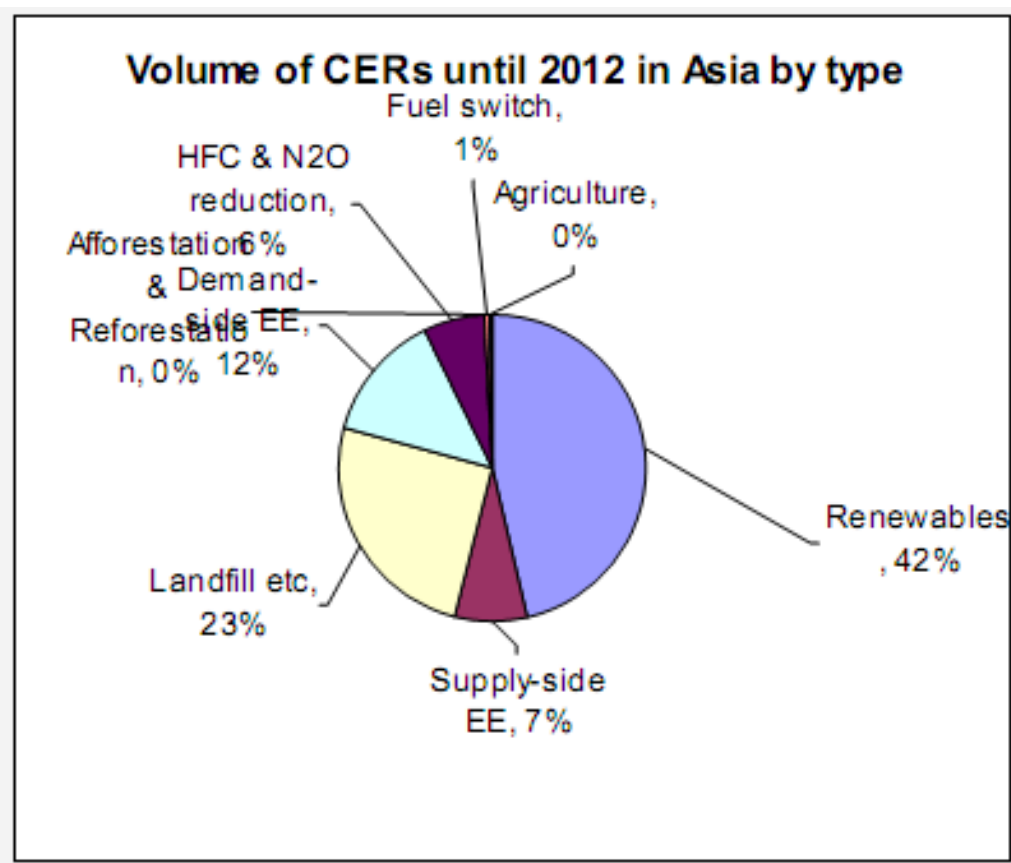
Uptake of CDM Funding in AP (2)



Uptake of CDM Funding in AP (3)



Uptake of CDM Funding in AP (4)



CDM Gaps and Opportunities

- Need to focus on small scale LCTs;
- Move away from end-of-pipe non-CO2 technologies and “component addition” for LCTs
- Enable wider adoption of LCTs
- Enable wider financing of LCTs
- Attract low-cost long-term financial resources
- Building capacity of financial sector
- Public-Private Partnerships



Green Taxes and Budget Reform

Areas of Green Taxation

- Energy
- Transportation
- Waste
- Water and Sanitation
- Fisheries
- Forestry
- Products

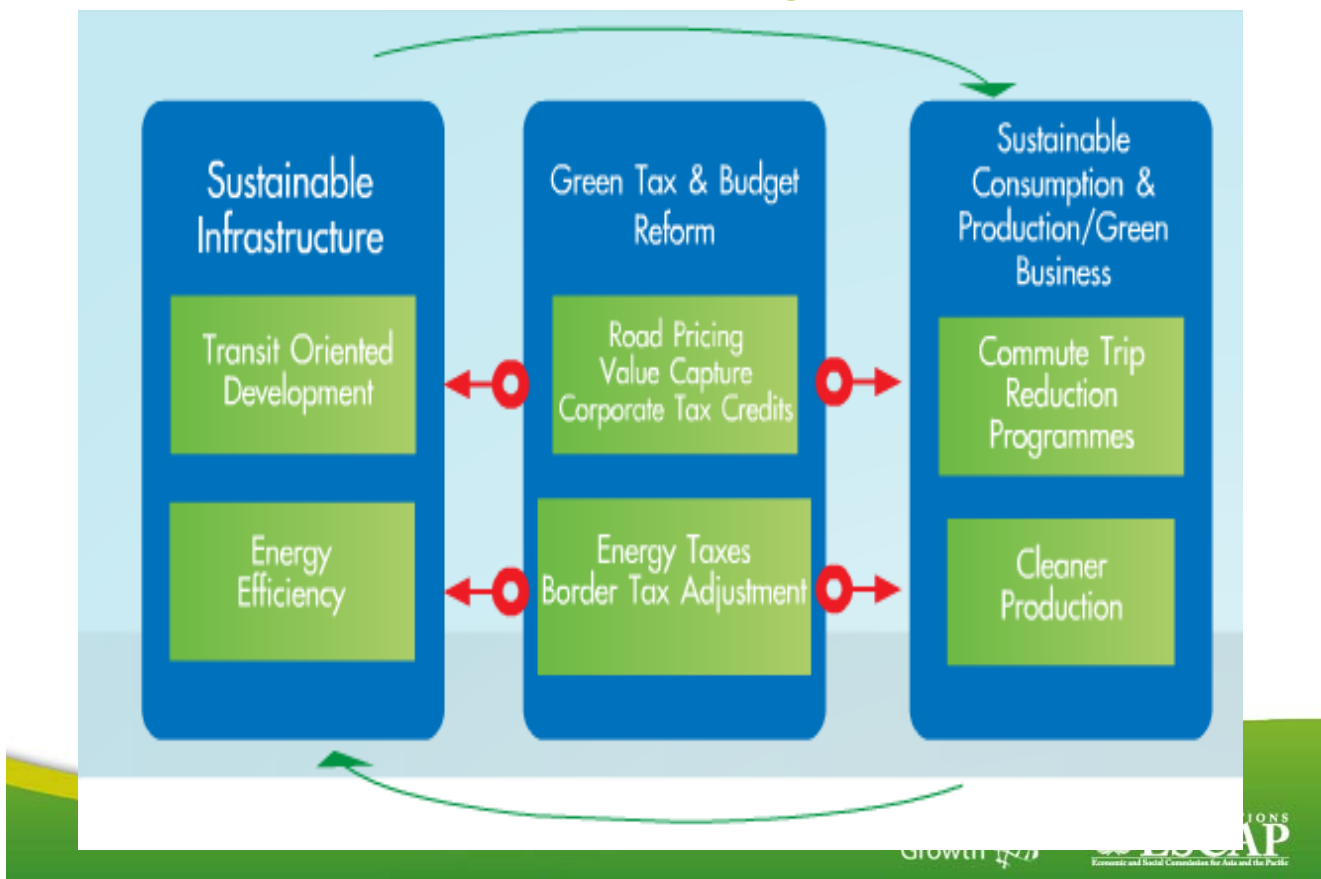
GTBR Design Issues

- Options for using revenue
- Reduce impact on the poor
- Educate people on GTBR
- Measures for reducing impact on competitiveness
- Sequencing of policies
- Tailored design for each country

Go! Green

The logo for Green Growth, featuring a stylized tree with roots and branches.

Green Taxes and Budget Reform



Green Taxes and Budget Reform

Benefits of GTBR: Private Sector

- Drives investment in R&D for new green product designs and services
- Fosters green job creation
- Reduces relative input costs for green businesses

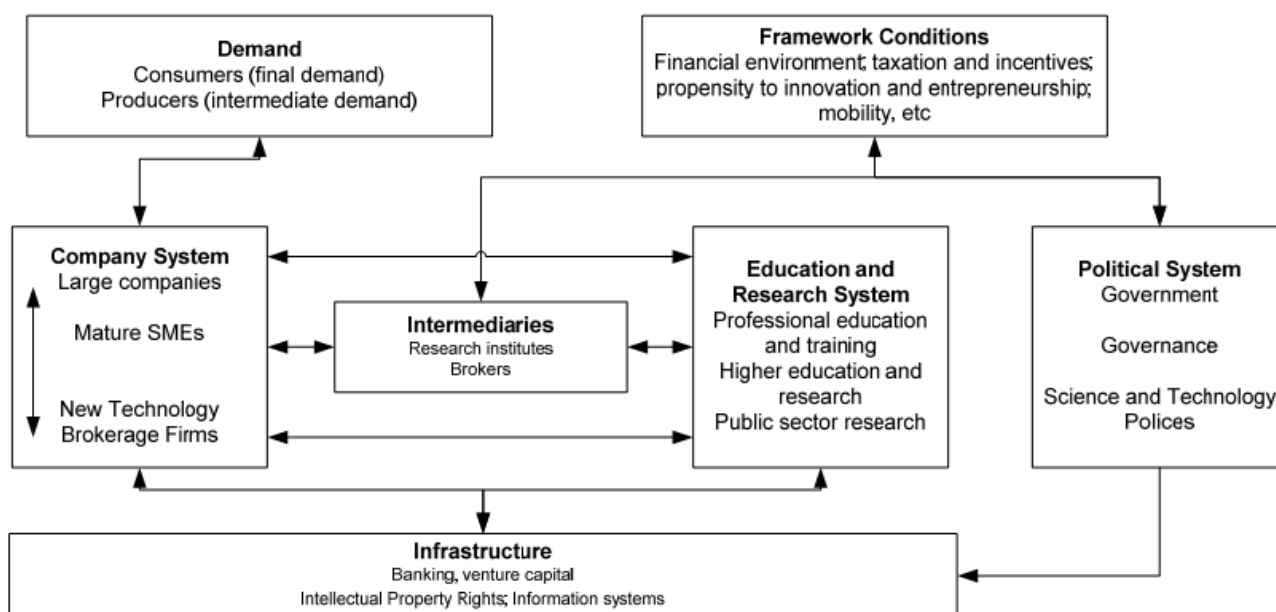
The private sector reacts directly to signals from the government. A tax on one input such as fuel, for example, can create a greater incentive for businesses to shift capital towards investments in fuel-efficient technological research. Innovations spawning from such research can result in the demand for and creation of new products, services and markets. Furthermore, reductions in corporate income tax, capital gains tax, and social security contributions of firms can reduce costs and improve competitiveness in global markets.

GTBR Instruments

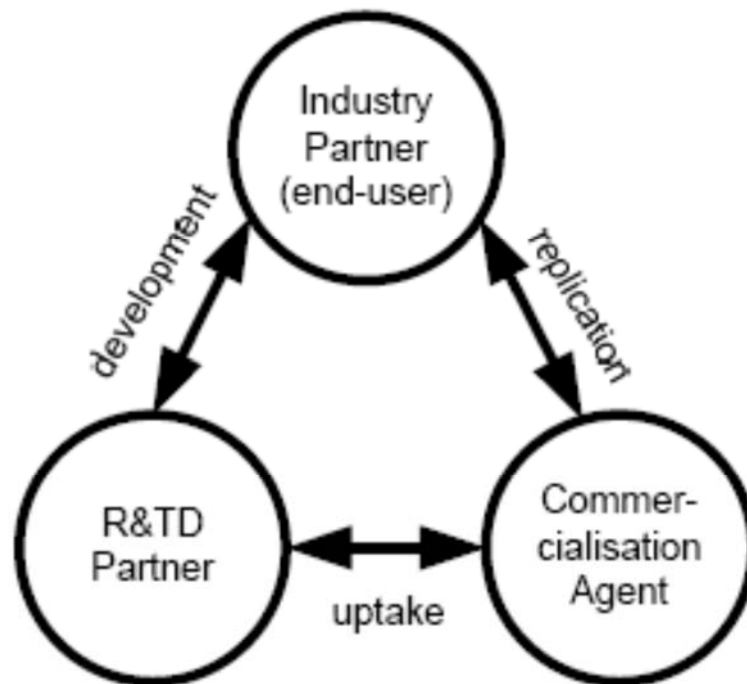
- Broad-based Energy Taxes
- Carbon & Green House Gas Taxes
- Differentiated tariffs
- Feed-in tariffs
- Net-metering
- Preferential tariffs
- “Life-line” tariffs
- Reduce perverse subsidies
- Soft loans
- Energy demand response
- Power purchasing agreements
- Tax rebates/reductions in tax rate



National Innovation Systems



Technology Partnership Format



Barriers to LCTs Transfer

- ❑ Absence of risk mitigation facilities and retail level institutions;
- ❑ Limited availability of micro-financing
- ❑ CFM – only for grid-connected energy projects
- ❑ IP barriers for LCTs
- ❑ End-use of IPR an issue
- ❑ LCTs and energy-efficient equipment not easy to acquire

AP Centre for Technology Transfer

- Addresses barriers to technology transfer
- Fosters regional cooperation with focus:
 - SMEs
 - Capacity development for public-private partnerships;
 - Fosters and facilitates horizontal TT
 - Innovation hubs
- Provides a technology hub and market place for ESTs/LCTs



A screenshot of the APCTT website displayed in a Mozilla Firefox browser window. The browser title is 'Welcome to APCTT - Mozilla Firefox'. The address bar shows 'www.apctt.org'. The website has a blue header with navigation tabs: 'About Us', 'Focus Areas', 'Tech Exchange', 'Events', 'Publications', 'Tech Forum', 'Information Center', 'E-rmail', and 'Focal Points'. The main content area is divided into several sections: 'NEWS & INFORMATION' with a list of recent news items; 'APCTT Objective' with a quote and a link to the complete Statute; 'TECHNOLOGY Offers' listing various technologies like 'Environmentally Friendly Power Plant' and 'Novel Transdermal Medical Gas Delivery Technology'; 'TECHNOLOGY Requests' listing requests like 'Ethanol Distillery Plant' and 'Proper Utilization of CO2 from Gas Fields'; and 'UPCOMING events & meetings'. On the right side, there is a 'Functions of APCTT' section, an 'APTITUDE Search Engine' section, and an 'APCTT Search' section with a search box and radio buttons for 'For www' and 'For apctt.org'. The browser's taskbar at the bottom shows various application icons and the system clock indicating '11:35 AM 5/30/2012'. The ESCAP logo is visible in the bottom right corner of the browser window.

AP Centre for Technology Transfer

Eco-friendly Technology Transfer

□ The Asian and Pacific Centre for Transfer of Technology (APCTT) of ESCAP, has facilitated a technology/business partnership between Green Business Support Services, Colombo, Sri Lanka and Peak Traders, New Delhi, India through its technology transfer support services.

AP Centre for Technology Transfer

Transfer of Low Carbon Air Conditioning Technology to the Expanding Service Sector in Sri Lanka

Organized a Business-to-Business (B2B) Forum on “Fostering Business Partnerships to Promote the Adoption and Utilization of Renewable Energy Technologies” in association with the National Engineering Research and Development Centre (NERDC) of Sri Lanka, the National Cleaner Production Centre of Sri Lanka (NCPCSL), and the Ceylon Chamber of Commerce during 22-23 September 2011 in Colombo, Sri Lanka



63 fact sheets and 51 case studies

8 policy papers

Thank you for your attention!

For more information please visit:

www.unescap.org/esd
www.greengrowth.org

or contact us:
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