# Technology Transfer for a Green Economy South Asian Perspective



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#### **Outline**

- Background Green Growth and green technology
- Asian Pathway for Green growth
- Development choices for South Asia
- Technology transfer enabling factors
- Stories of Interest
- Conclusion and recommendations



# Background Green Growth, Green Technology

- In 1992, Earth Summit at Rio: Governments of the world affirmed that urgent action is needed to safeguard the life supporting systems of the earth by committing to sustainable mode of development.
- In 2002, World Summit on Sustainable Development (WSSD): Governments reaffirmed their commitment to safeguard the environment by adopting Agenda 21.
- In 2012, Rio+20 summit: It was clear that Agenda 21 did not progress much, but challenges predicted increased.
- The focus and emphasis on green growth was heightened and it was supported by discussions/negotiations through UNFCCC, CBD.



# **Asian Pathway for Green Growth**

- In March 2005, 52 governments and stakeholders met in Seoul, Korea at the 5<sup>th</sup> Ministerial Conference on Environment & Development and agreed that Asia should pursue a path of "Green Growth."
- This was reaffirmed in Astana in 2011 (MCED 6).
- Four key "Pillars of Green Growth" were recognised as fundamental to this shift.
  - Eco tax reforms
  - Sustainable infrastructure
  - Greening Production & Services and Sustainable Consumption

# **Development Choices for South Asia**

#### South Asia is at an important juncture

- Growing population
- Demand (and conflicts) for resources increasing
- Large proportion of poor people living in fragile areas.
- Highly vulnerable for climate change
- Social, political and economic instability (regional/global).
- Unstable/inconsistent regional collaboration



# **Technology transfer for Green Economy**

There are several initiatives for transferring green technologies

- Internationally
  - Establishment of Global Green growth Institution
  - Technology transfer mechanisms under UNFCCC
  - Bilateral cooperation
- Regional and Local
  - Multi lateral /Regional agreements(MCED, AMCDRR)
  - Conferences, workshops and forums
  - People to people



# **People to People**

- Many organizations that are working with communities are discovering traditional technologies that are very dependable
- Local people, activists and science collaborating to test, develop and disseminate
- People familiarize easily, costs are lower, risks and vulnerabilities are lower
- Adoption is easy



# Stories of Interest Technology Transfer – People to People



#### Mini and Pico hydro

- Pico hydro is potentially the lowest cost technology for offgrid electrification.
- Producing energy from the smallest of water flows.
- The main environmental benefit of pico hydro is reduction in greenhouse gas emissions and local pollution from burning fuels such as kerosene for lighting, diesel for driving machinery and generating electricity.
- Simple technology and people can maintain with little training



Source: Irfanullah, 2013

#### Floating Gardens

- Classic example of how simple green technologies can be promoted for high impact results.
- Science and local knowledge deliver reliable technology option.
- Resulted in improving resilience of affected communities.





# **Bio fencing**

- Human Elephant conflict is a major issue for local farmers and wildlife managers
- Electric fencing costly, not environmentally friendly and not sustainable
- Palmyrah fencing was a technology used by people to protect their agricultural land from elephants.
- Developing and dissemination of the technology could save many lives, reduce emissions, increase sinks, provide livelihoods





Solar radiation technologies (solar water pumping, solar driers)

- Low cost technology options to improve local productions systems
- Adoptions is easy



### Key enabling factors for technology transfer

- Recognize, develop and promote local/indegenoues technology solutions.
- R &D on eco-friendly production/service technologies suitable for needs of poor is equally importance as policy considerations being made to facilitate macro shifts.
- Education for attitude changing not only about individual choices to support green production patterns and suitable consumption etc. but respect wealth of knowledge that traditional technologies and systems bring to face challenges in pushing for greener development.

### Key enabling factors for technology transfer

- CSO are at the fore front in promoting green technologies for poor and networking among these are essential
- Regional and national level platforms to share lessons and experiences
- Financing through national and international mechanisms

