

Regional Consultation on Achieving SDGs through Sector-focused STI Policies

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Promoting Sectoral Innovation Through Regional Collaborative Networks - Perspectives from APCTT-ESCAP

Satyabrata Sahu, Ph.D.

Coordinator

Asian and Pacific Centre for Transfer of Technology (APCTT) of the
United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)
New Delhi, India



Outline

- STI is key to achieve SDGs
- Innovation for inclusive and sustainable development
- Sectoral innovation focus
- Regional networking platforms and tools
- Supporting sectoral innovation systems – key highlights of APCTT
- Concluding remarks

STI and Collaboration are Key to Achieve SDGs

- **Science, Technology and Innovation (STI)** are key means to achieve SDGs
- **SDG 9 and 17** provide the framework for promoting innovation and regional cooperation



- Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



- Strengthen the means of implementation and revitalize the global partnership for sustainable development

Technology Facilitation Mechanism

- Launched to **support the implementation of SDGs**.
- Facilitates **multi-stakeholder collaboration and partnerships** through the sharing of information, experiences, best practices and policy advice among Member States, civil society, the private sector, the scientific community, United Nations entities and other stakeholders.
- **Global online knowledge and networking platform** is being established.

Innovation for inclusive & Sustainable Development

Key messages of SDGs:

- Technology to address **economic, social and environmental challenges**
- Sustainable technological **solutions for local problems**
- Emphasis on **green and climate-friendly technologies**
- **Affordability and accessibility** of technologies to reduce technology inequality
- Innovation through **collaboration**

Low cost and affordable water purification Nanotech-based solution in the Philippines



- Developed by Industrial Technology Development Institute (ITDI) of Department of Science and Technology (DOST), Philippines
- Ceramic water filter made of red clay coated with an anti-microbial agent that can substitute the chlorination process for purifying water
- Low cost, affordable, widely deployed, particularly in the far flung areas

APCTT Focus on Sectoral Innovation Systems

- Renewable / Sustainable Energy
- Nanotechnology
- Biotechnology
- Sustainable agricultural technologies
- Sustainable water management

APCTT's Regional Networks and Platforms



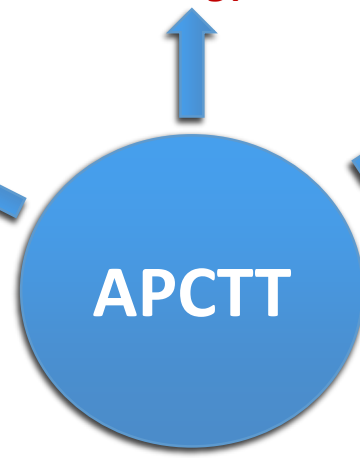
Asia-Pacific Online NIS Resource Centre
<http://apctt.org/nis/>

Technology4SME

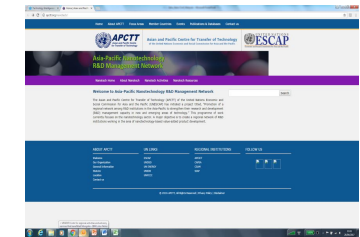
Technology Intelligence
<http://www.techmonitor.net>



Renewable Energy Technology Bank

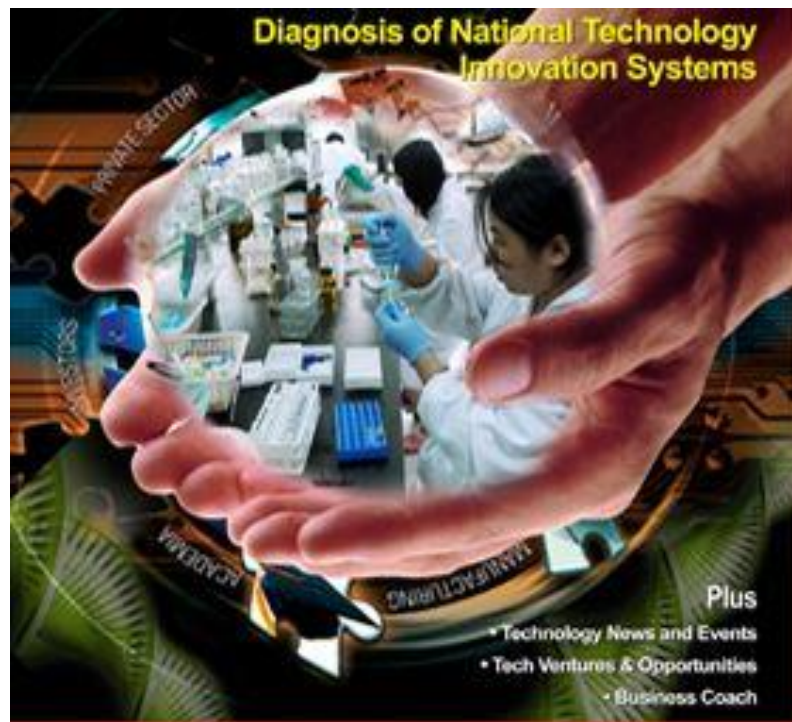


RECAP



Asia-Pacific Nanotechnology R&D Management Network
<http://apctt.org/nanotech/>

Diagnosis of National Innovation Systems in Nepal and Lao PDR



In partnership with Science and Technology Policy Institute (STEPI) of Republic of Korea, assisted Nepal and Lao PDR to:

- Analyze STI framework conditions
- Develop strategies to strengthen NIS enabling environment and promote technology based entrepreneurship

Piloting NIS Resource Centres



- Pilot version of **Asia-Pacific NIS Online Resource Centre**
- Supported development of online **national NIS Resource Centres** in **Indonesia** (<http://sinas-indonesia.org/>) and **Nepal** (<http://www.recast.edu.np/>).

- Policy makers in **Indonesia, Lao PDR and Nepal** were trained on the **importance and structure of national On-line NIS Resource Centres** for the benefit of NIS actors.

Sustainable Energy

Lao PDR, Indonesia

To increase **accessibility and affordability of sustainable energy options** in terms of enabling policy tools/incentives, technology, cost effectiveness, and business environment.

APCTT supported in:

- National Assessment of Sustainable Energy
- National Sustainable Energy Development Strategy



Sustainable Agricultural Technologies



SATNET
ASIA PACIFIC

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Technologies And Good Practices In Sustainable Agriculture



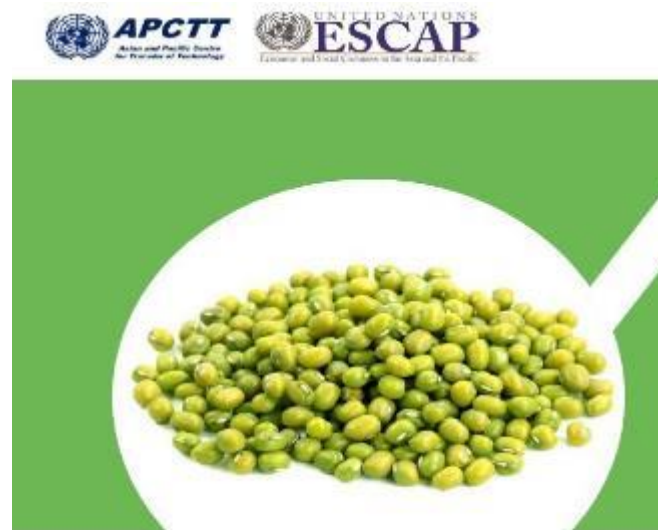
This database contains information on sustainable agricultural technologies and good agricultural practices promoted by development practitioners & implemented by small farmers in various countries of South and South-East Asia. It is the result of research by the SATNET Asia – an open network institutions and individuals sharing a common interest and concern in addressing the urgent need for innovative approaches to increase agricultural productivity to feed the growing population in a sustainable manner.

The Food Security Centre of the University of Hohenheim, Germany, had led the collection and analysis of technologies in this database. For more information on the experts who contributed to the database, please consult the list of contributors.

- **Trained** over 300 participants from **Afghanistan, Bangladesh, Bhutan, India, Pakistan and Nepal.**
- **Established** the first **manufacturing facility for bio control agents** at the National Plant Protection Centre (NPPC), Bhutan

Livelihoods Improvement in the Dry Zone of Myanmar

- In partnership with World Vegetable Centre (AVRDC), **transferred seeds of 59 elite mung bean (Green Gram) lines with pest and disease resistance** to Department of Agricultural Research (DAR), Myanmar.
- Increased knowledge on **seed quality control**
- Facilitated **farmer-led seed enterprise development**



MUNGBEAN

Seed Production
Training Manual

Biotechnology

Biotechnology Information Network for Asia (BINASIA) established in 2004-2006

- Promoted R&D cooperation and sharing of biotechnological information
- Facilitated networking and sharing of experiences between stakeholders

National Consultative Workshop on Strengthening and Road Mapping of Emerging Technology Innovation Systems of Sri Lanka, Nov 2015

International Workshop on “Promoting Biotechnology Education, Research and Knowledge Transfer in Asia and the Pacific”, October 2017 (Cambodia, Indonesia, India, Japan, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam)

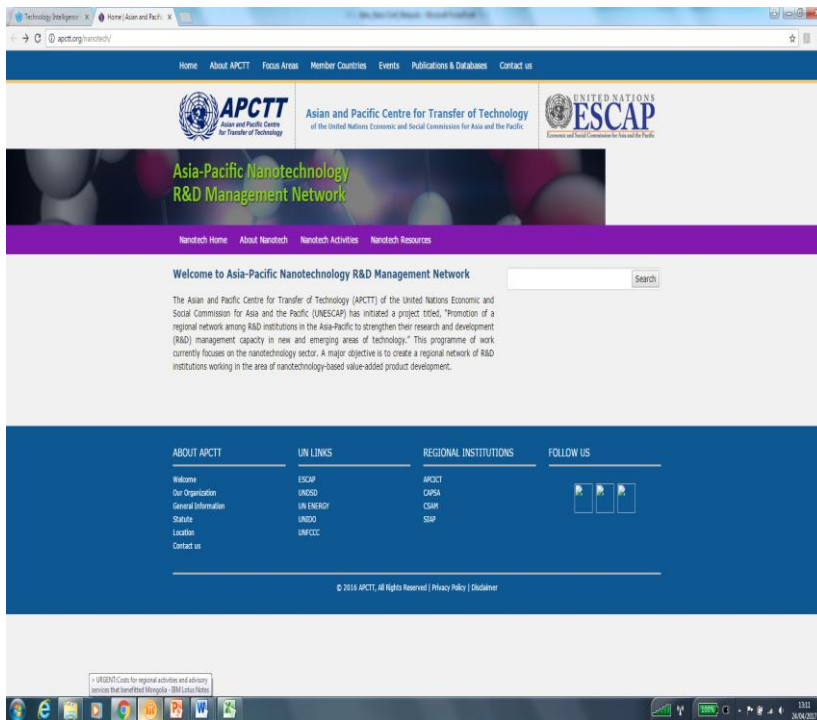
VATIS Update (Biotechnology) – Online periodical since 1994 for disseminating information on latest technological innovations

Sustainable Water Management

- **International Workshop on Science, Technology, Innovation and Management for Water Sustainability, New Delhi , India, April 2017**
- Participants from **Bangladesh, Bhutan, India, Nepal, Thailand, Singapore and Sri Lanka**
- Raised awareness on **technology policy for water sustainability, innovative and affordable technologies**
- Shared best practices on **innovation and transfer of technologies, analytical tools for sustainable water management**
- Suggested **(1) Regional cooperation framework in the water sector; and (2) Compendium of water technologies**

Asia-Pacific Nanotechnology R&D Management Network

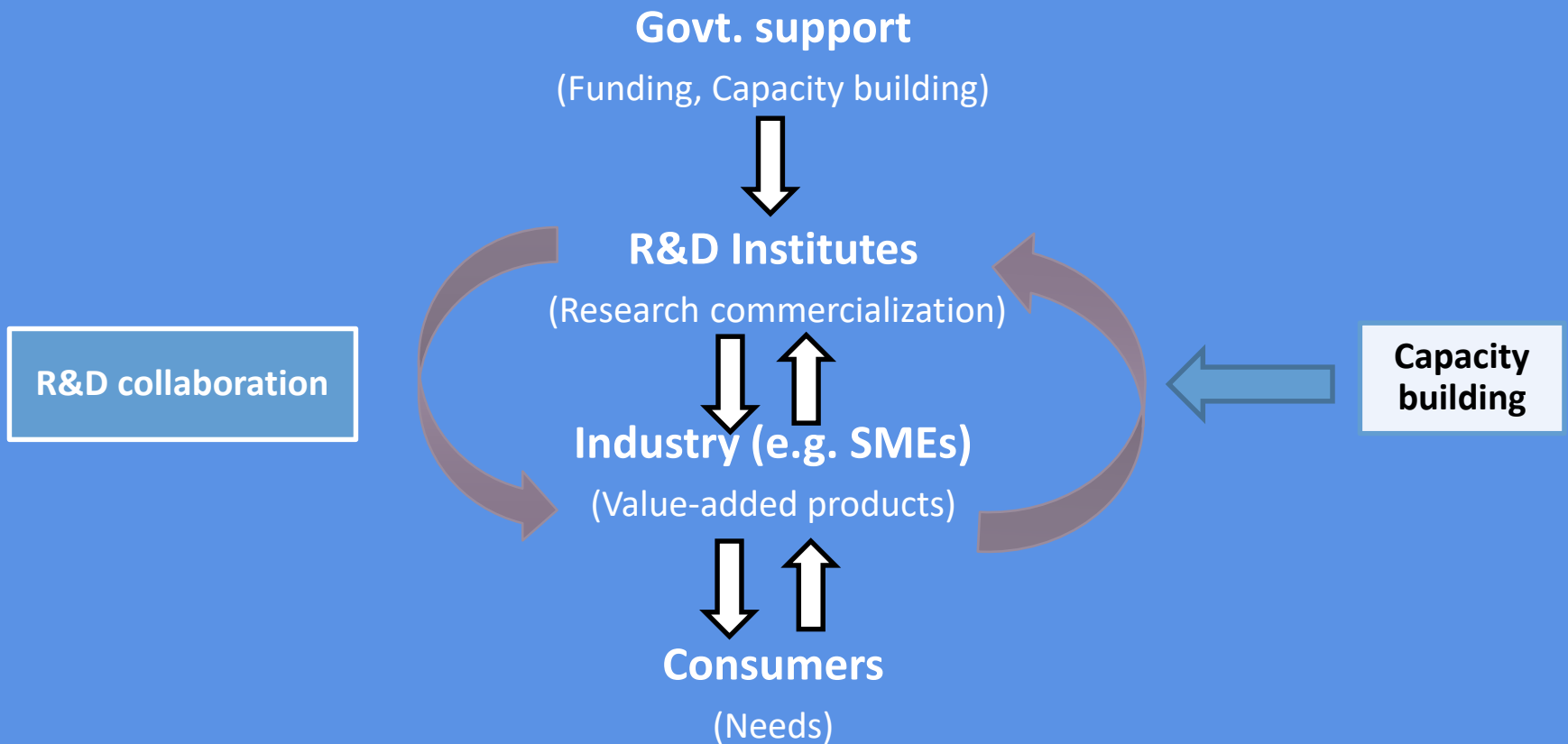
<http://apctt.org/nanotech/>



- **Nanotech-based value added products**
- Capacity building in **policy & strategy development, R&D management, Networking, Commercialization of R&D results, Nano-safety, IP protection and valuation**
- Sharing of **experience and best practices**
- Participating countries: **China, India, Indonesia, Iran, Pakistan, Philippines, Malaysia, Republic of Korea, Sri Lanka, Thailand, Vietnam**

Nanotechnology R&D

Integrating top-down and bottom-up approaches



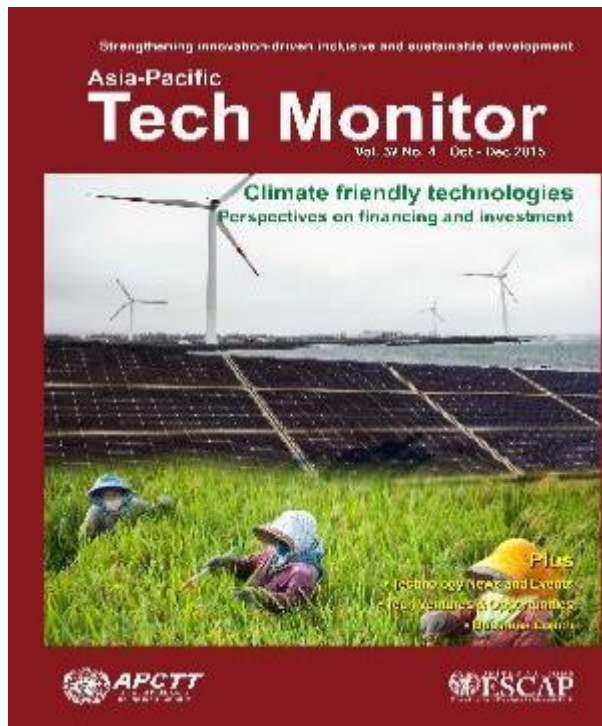
Nanotech Networking Initiatives

- **Tripartite programme** on 'Nanoparticle characterization comparison' between **Iran, Thailand and Taiwan Province of China** under the aegis of Asia Nano Forum (ANF).
- **ASEAN Nanosafety Networking Platform** for sharing of Nano-safety methodologies and testing procedures to promote cross-border collaboration and trade of certified nanoproducts.

Technology Intelligence

<http://www.techmonitor.net>

Asia-Pacific Tech Monitor



VATIS Updates



Recent Analytical / Knowledge Outputs

National Innovation System

- NIS Training Manual - “NIS Diagnosis and STI Strategy Development to Achieve National Sustainable Development Goals”

Sustainable Agricultural technologies

- Policies, Institutions and Processes (PIPs) to Support Value Chains for Seed Development for Pulses, Legumes and Oil crops in the Dry zone (*Case Study*)
- Supporting Value Chains for Seed Development of Pulses, Legumes and Oil crops in Myanmar’s Dry Zone (*Policy Brief*)

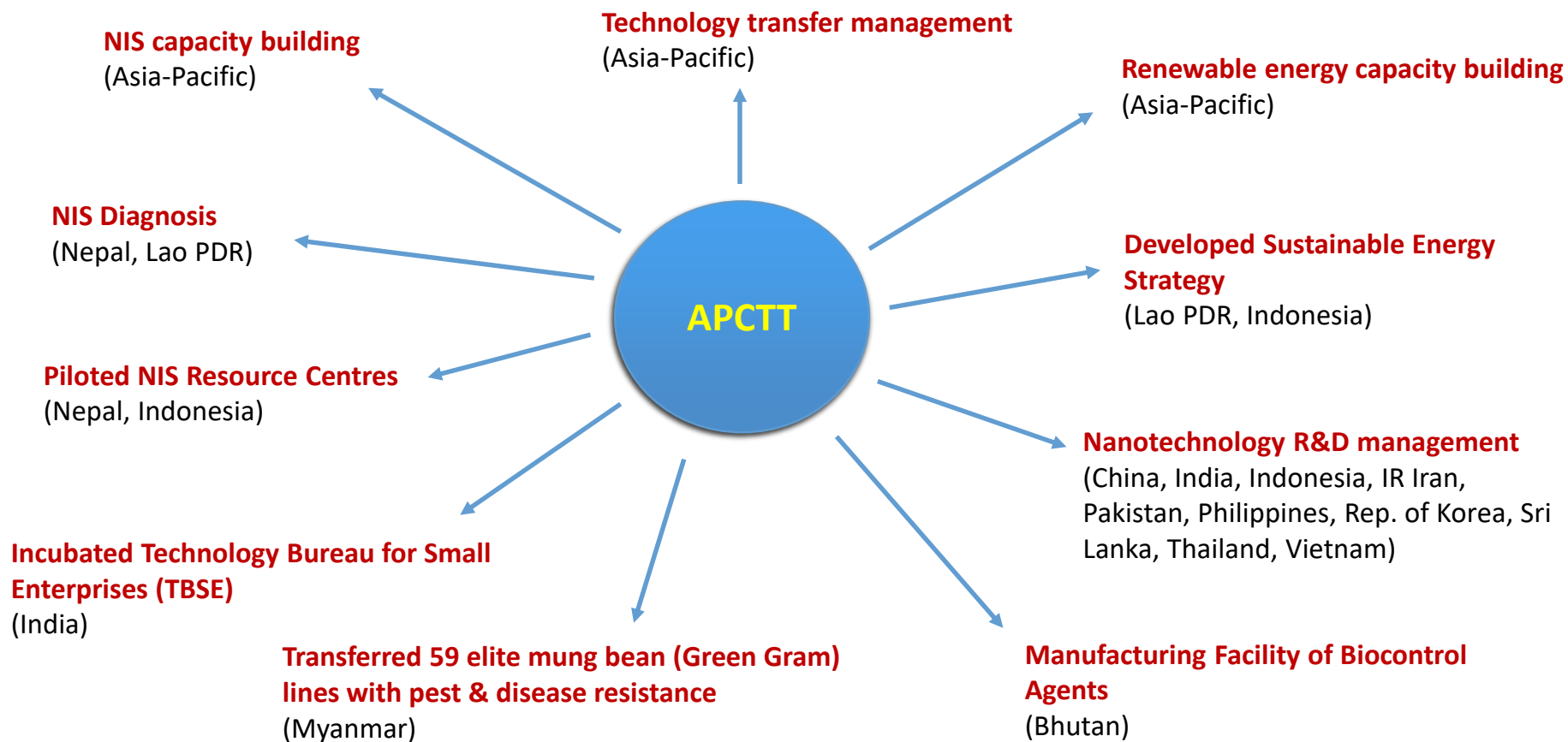
Nanotechnology

- Manual on Critical Issues in Nanotechnology R&D Management: An Asia-Pacific Perspective
- Innovative Development of Bottom-up Nanotechnology-based Value Added Products for Enhancing Competitiveness in the Asia-Pacific

Sustainable Energy

- National Assessment Framework on Sustainable Energy (Indonesia and Lao PDR)
- National Sustainable Energy Strategy Reports (Indonesia and Lao PDR)

Supporting Member Countries - Key highlights of APCTT



Concluding Remarks

- **Challenges of innovation and technology transfer can be addressed** through wider networking with stakeholders.
- Knowledge networks, online platforms and tools are considered **key to access up-to-date information and establish linkages and partnerships**.
- APCTT can assist **technology transfer and utilization capacity** of member States through promoting South-South, North-South and Triangular cooperation.
- The Centre focuses on specific sectoral innovation systems and challenges as per the **expressed needs of member States**
- **Ownership and intensive use of online resources** by member States is important for achieving effective and concrete outcomes

Thank you

For more information, contact

Satyabrata Sahu, Ph.D.

UNESCAP-APCTT

P.O. Box 4575, C-2, Qutab Institutional Area, New Delhi – 110 016, India

Tel : 91-11-30973756 | Fax : 91-11-26856274

Email : sahus@un.org | Website : www.apctt.org,

www.techmonitor.net

