



Multi-Economy Foresight Activities of the APEC CTF

By

Dr. Witaya Jeradechakul

Executive Director

APEC Center for Technology Foresight

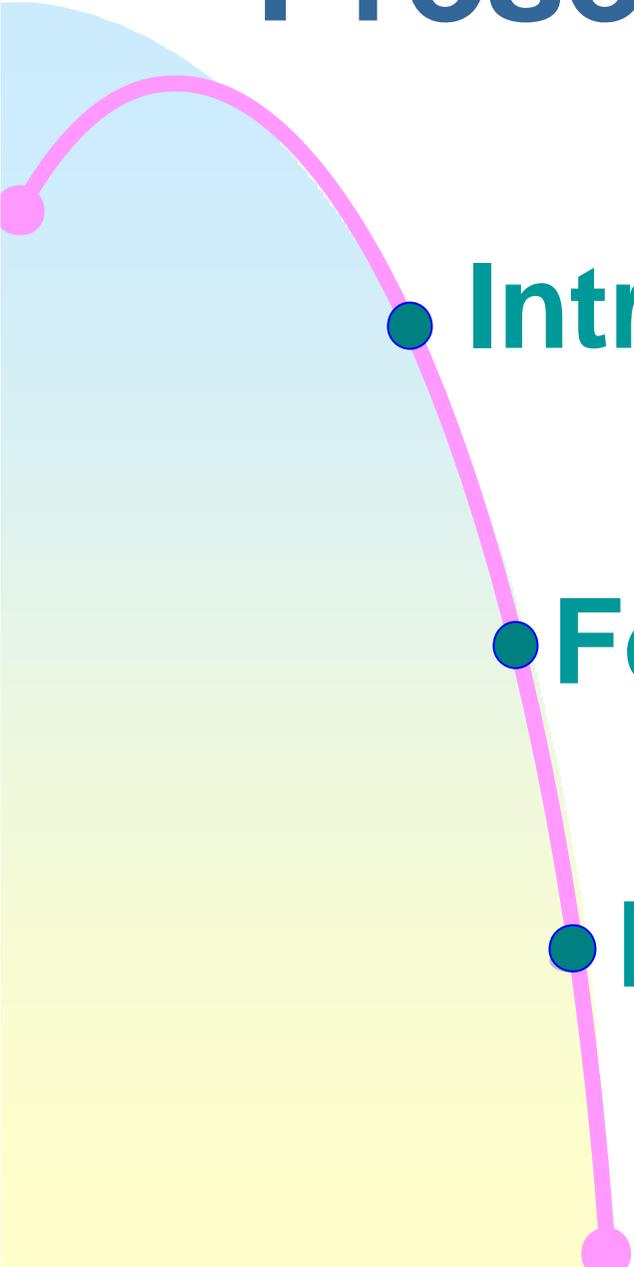
The Third Generation Foresight and Prioritization in S&T Policy

United Nations University Headquarters

Tokyo, Japan

27-28 February 2003

Presentation Outlines



● **Introduction**

● **Foresight Stages**

● **Discussion**

Introduction

- **5 APEC-Wide Projects were completed**
- **Purpose of the Paper and Foresight Stages**

Multi-economy Foresight Projects

WSM

TLC



1998



1999



2000



2001



2002



ST

HMC

NANO

<http://www.nstda.or.th/apectf>

Foresight Stages

© Pre-foresight

© Foresight (multi-economy projects)

© Post Foresight

Pre-foresight phase

- Projects were initiated by APEC member economies
- Encompassing the tasks of choosing topics, engaging sponsors and resources, and framing scope of the study
- Projects passed through scrutinized process of Budget and Management Committee for financial support
- Consensus supports from ISTWG, then APEC Senior Officials and Ministers to become “APEC” projects

APEC CTF Criteria for Choosing the Projects

Issues of the topic must:

- concern most member economies, with at least 4 agreeing to participate
- transcend national boundaries
- be of general, public concern, benefit and not likely to be dealt with by the private sectors
- have important technological components but not necessarily 'high-tech' ones

Foresight (multi-economy projects)

- Water Supply and Management – 1998
- Technology for Learning and Culture – 1999
- Sustainable Transport for APEC Megacities – 1999
- Healthy Futures for APEC Megacities 1999-2000
- Nanotechnology: the Technology for the 21st Century 2001-2002

Water Supply and Management (WSM) -1998

Methods used: Scenario and Delphi Survey

Partner: none

- Scenarios:
 - **Danger! Water Ahead** – a pessimistic future of water supply that leads to recognizing the central role of water management
 - **Water Rules** – optimistic and consensus agreement for integrated water management for growth
 - **APEC Turns on The Tap** – imaged picture of natural disasters and water problems that necessitated appropriate short-term measures
- Delphi Survey topics derived from the scenarios

Technology for Learning and Culture (TLC) - 1999

Methods used: Scenario and Delphi

Partner: NRC

- Scenarios:
 - **Water, Water Everywhere** – global warming impact that requires integrated skills of 3 professions: engineers, health workers, and teachers
 - **Learning through Adversity** – pictures of lifestyle changing as a result of economic crises and the need to have traditional living pattern
 - **Helpless and Hopeless** – unhappy pictures of society that lost its technological capacity to outer space and the need for sustaining education and culture.
 - **The Folks Next Door** – robust picture of technological changes that catalyst growth.
- Delphi Survey topics derived from the scenarios

Sustainable Transport for APEC Megacities (ST) - 1999

Methods used: Scenario. Partner: VUT, Australia

- Scenarios:

- **Green Light Ahead** – concern of political organizations over environmental problems leads to innovations in energy
- **Take the Train** – uncertainty of economic world and awareness of clean environment leads to wider use of mass transit
- **Back to Basics** – world-wide problems (computer system, oil crisis, and public pressure) change of the people's lifestyle and communication; old model of transport becomes a choice

Healthy Futures for APEC Megacities (HMC) - 1999-2000

Methods used: Scenario

Partners: CDC, UNC, USA

- Scenarios:

- **Econologic City** – one of the top most advanced cities in the world that was electronically advanced and open only for EC-card owners
- **Monopolis** – picture of self-disciplined society and was highly efficient in resource distribution in order to survive
- **Fat City 2020** – a dream city, highly participatory, and self-governed democracy

Nanotechnology - the Technology for the 21st Century - 2001-2002

Methods used: Scenario

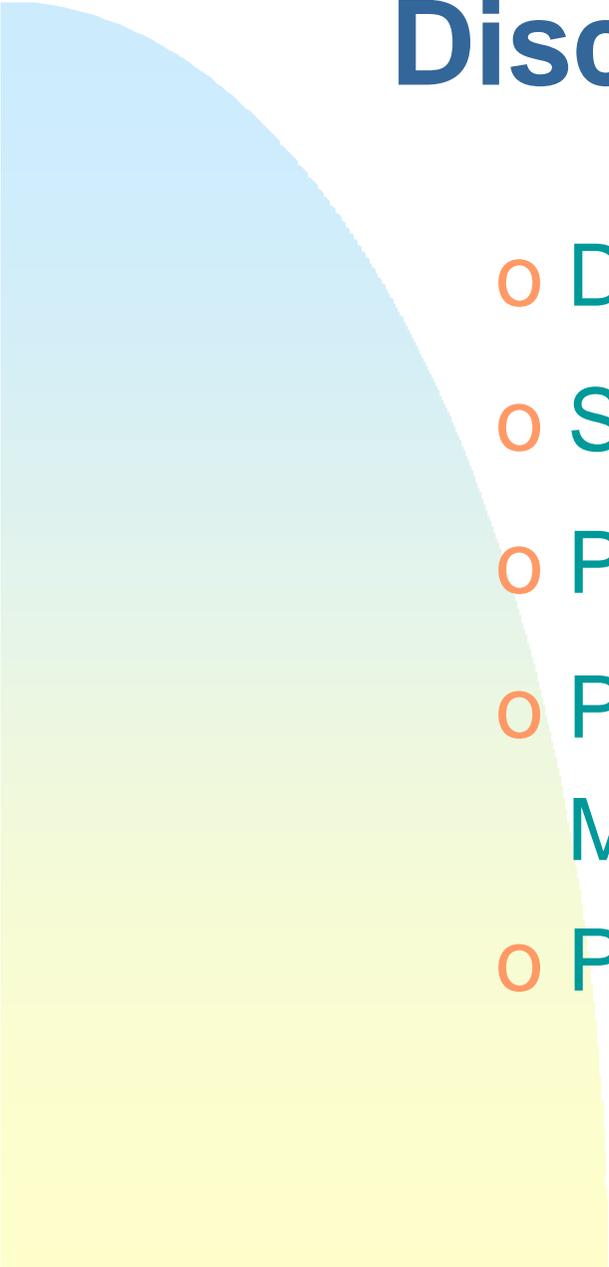
Partner: 5 economies (Australia, Canada, Japan, Chinese Taipei, and Philippines)

o Scenarios:

- o **Nano-Paradox** – growth in nano products in different ways led to uncertainty and loss of trust by consumers
- o **Green Energy Triggers in Energy Market** – the depletion of fossil oil necessitated new energy saving products based on nanotechnology
- o **Nanotech Wins the War!** – R&D on nanodevices helped western power to win the war

Post Foresight

- APEC CTF has realized the importance of post foresight activities
- Activities are carried out both independently and in conjunction with other activities: publication, presentations, visits, seminars, follow up studies
- Website: <http://www.nstda.or.th/apectf>



Discussion

- Delphi Survey
- Scenario Exercise
- Projects Outcomes
- Partnership of the APEC
Member Economies
- Possible Future Direction

Discussion

Delphi Survey

Advantages:

- Excellent for obtaining ideas from experts in a large scale
- Suitable for study in a single economy

Disadvantages:

- Timeframe and logistic difficulties
- Difficult to identify experts and expertise in multi-economy region
- Difficult to call experts' attention to answer the survey

Discussion

Scenario Exercise

- Excellent and flexible tool for discussion, brainstorming and networking among stakeholders
- A total of 16 alternative pictures from 5 scenario workshops were completed
- A gateway for exploring the implications for use in planning, policy setting, and decision

Projects Outcomes

- Comprehensive reports and policy recommendations were produced for widely distribution
- Website traffics obviously increased
- Network coalitions from other organizations such as APNF, ASEAN, etc.

Possible Futures Direction

- Regional Foresight focus will be maintained
- More follow-up activities at individual economy level
- Foresight that combines technological, social, and environmental elements
- CTF is developing itself to serve as a resource center for visiting and internship opportunities in order to build up an active foresight network and capability to serve the region.

The APEC Center for Technology Foresight

- Established in February 1998
- Activities throughout APEC region, including
 - foresight research studies
 - training workshops
 - public seminars
 - publications
 - website: <http://www.nstda.or.th/apectf>
 - consultancy