

**ASIA-PACIFIC FORUM FOR ENVIRONMENT AND DEVELOPMENT
FOURTH SUBSTANTIVE MEETING
23-24 August 2003
Ulaanbaatar, Mongolia**

**Overview of Networks and Initiatives for Sustainable Development
a consideration for an effective network**

1. Objectives

Establishment of a network of researchers and research institutes (NetRes) is one of the commitments made in the APFED Message to the World Summit on Sustainable Development (WSSD). The main objective of NetRes is to make policy recommendations that contribute to implementation of APFED recommendations in its Final Report. A grand design of NetRes is to be finalised by the end of 2004.

A variety of networks exist around the world with the aim of promoting sustainable development, but not all of them work effectively. What are the requirements for an effective network? As a first step to design NetRes, a survey on the activities of existing networks and initiatives in the Asia-Pacific region was conducted to answer the question.

2. Methodology

Target networks and initiatives were selected mainly from those which are active in the Asia-Pacific region. Information of each network and initiative was obtained through the Internet and literature survey. Interviews with some of target networks were conducted to investigate the challenges they are facing. Through the collected information, some requirements for an effective network were identified.

3. Overview of Activities of Existing Networks and Initiatives

3-1. Target Networks and Initiatives

Following is a list of the target networks and initiatives. They are divided into two categories based on their principal goals: the networks and initiatives of which the principal goals is to support the implementation of policy measures (category A); and those whose primary goal is to make policy recommendations (category B).

A. Networks and initiatives aiming to support the implementation of policy measures

- (1) APEC Virtual Center for Environmental Technology Exchange (APEC-VC)
- (2) Asia-Pacific Network for Global Change Research (APN)
- (3) Regional Network of Local Authorities for the Management of Human Settlements (CityNet)
- (4) Environmental Information Network for Asia and the Pacific (ECOASIA-NET)
- (5) Kitakyushu Initiative for a Clean Environment

B. Networks and initiatives aiming to make policy recommendations

- (1) Millennium Ecosystem Assessment (MA)
- (2) International Institute for Sustainable Development (IISD)
- (3) Asia-Pacific Environmental Innovation Strategy Project (APEIS)

3-2. Activities of each network/initiative

The following is an overview of the activities of each network and initiative.

A. Networks and initiatives aiming to support the implementation of policy measures

(1) APEC Virtual Center for Environmental Technology Exchange (APEC-VC)

Objective	Promotion of exchange of environmental technologies and environmental conservation within the APEC region.
Outline	<ul style="list-style-type: none">• The establishment of VC was approved as a joint research project at APEC Meeting in 1995 in Osaka. VC is in charge of promotion of environmental technology exchange by providing relevant information accumulated by countries, regions, local authorities, businesses and environmental organisations in the APEC region.• Country-based VCs were established in Australia and Chinese Taipei in 1998, in New Zealand and China in 1999, in the Philippines and Vietnam in 2000, in Thailand, Chile, Malaysia and Indonesia in 2001, and in Korea in 2002.
Participating entities	<ul style="list-style-type: none">• Local governments, private enterprises, business group, special public organisations and universities within the APEC region.
Administrative bodies	<ul style="list-style-type: none">• Secretariat: Supporting Committee for APEC-VC for Environmental Technology Exchange (based in Japan).• Country based VCs are administrated by VC in each country.
Financial sources	<ul style="list-style-type: none">• Committee membership fees• Financial supports from Japanese Government and 12 local governments in the Kansai district of Japan.
Information providers	<ul style="list-style-type: none">• Businesses, research institutes, universities and other entities that have information on environmental technologies.
Target users	<ul style="list-style-type: none">• Businesses and local governments that require technology information.
Communication methods	<ul style="list-style-type: none">• Workshops that are held annually with participation by national and regional representatives in APEC countries. The workshops aim to discuss and decide the systems and contents that VCs should have. It also aims to promote the establishment of APEC-VCs in each country and/or sub-region.• Country-based VCs that release information on environmental technology, event information and links to VCs in other countries.• Electronic bulletin boards that serve as a platform to exchange information
Information exchanged through the network	<ul style="list-style-type: none">• Provision the following information through the Internet:<ul style="list-style-type: none">-Environmental conservation technology databases-Information on recent research and development-Environmental policies and reports by companies-Environmental policies and measures taken by public sectors-Relevant meetings and conferences-Links to other relevant sites

Needs identification	<ul style="list-style-type: none"> • Through information exchanges through electric bulletin boards and other activities
----------------------	---

(2) Asia-Pacific Network for Global Change Research (APN)

Objective	Promotion of global change research and links between science and policy making in the Asia-Pacific region.
Outline	<ul style="list-style-type: none"> • An inter-governmental network officially launched in 1996 • Primary purposes are to foster global environmental change research in the Asia-Pacific region, increase developing country participation in that research, and to strengthen links between the science community and policy makers. APN promotes, encourages and supports research activities on long-term global changes in climate, ocean and terrestrial systems, and on related physical, chemical, biological and socio-economic processes. • Support to research and capacity building projects.
Participating entities	<ul style="list-style-type: none"> • Governments (21 countries), global change scientific programmes, other research networks on global change studies
Administrative bodies	<ul style="list-style-type: none"> • Inter-Governmental Meeting (IGM) • Scientific Planning Group Meeting (SPG) • Steering Committee (SC) • Secretariat: APN Secretariat
Financial sources	<ul style="list-style-type: none"> • Funds from various national governments and other sources.
Information providers	<ul style="list-style-type: none"> • APN Secretariat, implementation bodies of research projects supported by APN, other research networks on global change
Target users	<ul style="list-style-type: none"> • Researchers, research institutes, policy makers
Communication methods	<ul style="list-style-type: none"> • APN website (http://www.apn.gr.jp) that provides APN activities including research project summaries, newsletters, IGM and SPG meeting summaries. • Regular meetings (Annual Inter-Governmental Meetings (IGM), Steering Group (SG) Meetings and Scientific Planning Group (SPG) Meetings) and workshops.
Information exchanged through the network	<ul style="list-style-type: none"> • Information of research project supported by APN • Summaries of meetings. • Global change data (link to other research networks).
Need identification	<ul style="list-style-type: none"> • Support of research projects is provided by proposal base.

(3) Regional Network of Local Authorities for the Management of Human Settlements (CityNet)

Objective	Promotion of local urban improvement initiatives in the Asia-Pacific region
Outline	<ul style="list-style-type: none"> • The Second Congress of Local Authorities for the Development of Human Settlements in Asia and the Pacific was organised by ESCAP in Nagoya, Japan in 1998. The Congress discussed the strengthening of institutional capacities of local authorities, as well as the role of NGOs and communities in improving urban human settlement conditions. Following the adoption of the Nagoya Declaration, the Congress established CityNet.

Participating entities	<p>Targets: whole range of urban stakeholders at the local level including</p> <ul style="list-style-type: none"> • Local governments • Development authorities • Non-governmental organisations • National government organisations • Research and training institutes <p>Members: 130 organisations, including more than 70 cities in 20 countries</p>
Administrative bodies	<ul style="list-style-type: none"> • General Council and Executive Committee • CityNet Secretariat
Financial sources	<ul style="list-style-type: none"> • Membership fees • Member's voluntary contributions • Assistance from international organisations • Supports from host city (Yokohoma City Government)
Information providers	<ul style="list-style-type: none"> • Member cities and groups • CityNet Secretariat
Target users	<ul style="list-style-type: none"> • Local governments, NGO and other groups working for improvement of cities
Communication methods	<ul style="list-style-type: none"> • Meetings (Executive Committee, General Council) • City Voice newsletter • Technical cooperation among cities including site visits and technical tours • Provision of training programmes • Seminars and workshops • City Net web-site
Need identification	<ul style="list-style-type: none"> • Through CityNet activities such as seminars, workshops and training programmes
Information exchanged through the network	<ul style="list-style-type: none"> • Expertise on administration of cities including finance, environment and sanitation issues, poverty reduction, urban infrastructure development and provision of services. • Information on best practices • Data of cities mainly in Asia

(4) Environmental Information Network for Asia and the Pacific (ECO ASIA-NET)

Objective	Support of sustainable development in the Asia Pacific region by information sharing and dissemination
Outline	<ul style="list-style-type: none"> • Establishment of ECO ASIA-NET was proposed by the Environment Agency of Japan at the Fifth Meeting of Environment Congress for Asia and the Pacific (ECO ASIA'96) held in 1996. • ECO ASIA-NET serves as a databank of environmental information of 22 countries in the Asia Pacific region. • It provides the policy makers in the region with an important basis for developing environmental policy and measures.
Participating entities	<ul style="list-style-type: none"> • Governments that participate in ECO ASIA
Administrative bodies	Administrator of the ECO ASIA web site: Environmental Information Center

Financial sources	• The Ministry of Environment of Japan
Information providers	• Governments • Relevant organisations in the Asia-Pacific region
Target users	• Primary target users: those who are involved in the policy-making process in the governments, including the members of specified research organisations and/or local governments.
Communication methods	• ECO ASIA-NET web site (www.ecoasia.org)
Information exchanged through the network	The following information is provided through the Internet: • Summaries of ECO AISA meetings • Information of environmental policies of member countries • Information of ECO ASIA related activities such as APFED and APEIS (Asia-Pacific Environmental Innovation Strategy Project) • Event information in the region • Links to Environment Ministry/Agency of respective member countries
Need identification	• ECO-ASIA meetings

(5) Kitakyushu Initiative for a Clean Environment

Objective	Achievement of measurable progress in improvements of the urban environment in major cities in the Asia and the Pacific.
Outline	• Adopted at the Ministerial Conference on Environment and Development in Asia and the Pacific (MCED 2000) held in Kitakyushu in 2000 to assist the implementation of the Regional Action Programme for Environmentally Sound and Sustainable Development in Asia and the Pacific (RAP) 2001-2005. • Promotes mainly local efforts aimed at controlling air and water pollution and reducing all waste materials through applicable technological, organisational/systematic, regulatory and participatory means. • The Initiative has since been included as a Type I initiative in the WSSD Plan of Implementation, following the Summit in September 2002.
Participating entities	• Local governments in various Asian countries, including China, Korea, Thailand, Vietnam and Indonesia.
Administrative bodies	• Secretariat: IGES Kitakyushu office
Financial sources	• Project funding is supported by JICA, JBIC, ADB and the World Bank. Financial aid granted by the Ministry of Environment of Japan and the City of Kitakyushu.
Information providers	• Local governments that have successful experiences to improve urban environments.
Target users	• Local governments in the region
Communication methods	• Seminars, workshops, experts and stakeholders meetings • Technical support between city governments, NGOs and businesses
Information exchanged through the network	• Basic studies and research on successful practices • Pilot activities that were identified and commenced under the initiative

	<ul style="list-style-type: none"> • Information on meetings and seminars for development of an action-based Network
Need identification	<ul style="list-style-type: none"> • Through capacity building programmes for awareness raising and analysis best practices

B. Networks and initiatives aiming to make policy recommendations

(1) International Institute for Sustainable Development (IISD)

Outline	<ul style="list-style-type: none"> • Conduct of policy research, information exchange, analysis and advocacy for promote the transition toward sustainable future. • Presentation of action recommendations based on careful analysis, knowledge networks to build the capacity of civil society and other organisations in both South and North, and timely reporting of international negotiations critical to the sustainability of the planet.
Network objectives	<p>IISD now coordinates the following formal networks:</p> <ol style="list-style-type: none"> a. Climate change knowledge network: for an equitable negotiating process through capacity building of developing country negotiators. Also for policy research on key themes such as vulnerability and adaptation, renewable energy and the Kyoto mechanisms b. Sustainable development communications network: a group of leading civil society organisations seeking to accelerate the implementation of sustainable development through broader, integrated information and communications about what they know c. Trade knowledge network: for strengthening research capacity among a group of southern based organisations, better assessment of the linkages between trade and environment, and improvement of the understanding in the north of southern trade issues. <p>In addition to the above networks, IISD also has developed communities of practice to assist individual experts to better coordinate their activities and to advance the state of knowledge on a particular area of sustainable development. The examples of such communities are Consultative Group on Sustainable Development Indicators and The Sustainable Development Webworks.</p> <p>In addition to the sector-based networks, IISD coordinates Regional policy networks in West Africa, Central America and South Asia (in collaboration with IUCN).</p> <p>IISD also manages a selection of strategic alliances on business communications, trade, and environmental security, such as Alliance with Global Responsibility (GR) and Alliance with the International Centre for Trade and Sustainable Development (ICTSD)</p>
Composition	<ul style="list-style-type: none"> • Specialised research bodies and researchers from various countries in each discipline.

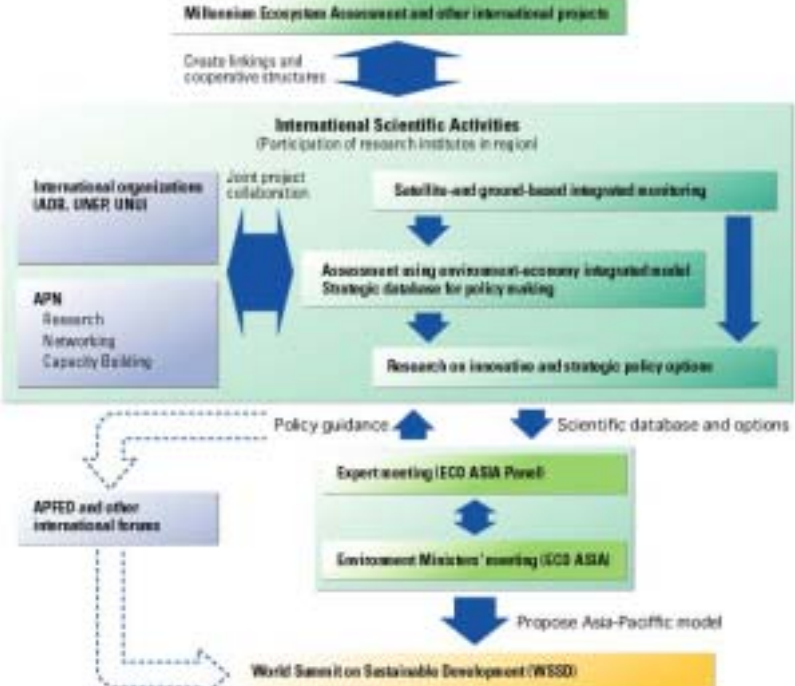
Network patterns	<ul style="list-style-type: none"> • Joint research among specialised research bodies. • Provision of the latest information and communication technology using the Internet. • Provision of reporting services
Information exchanged through the network	<ul style="list-style-type: none"> • Knowledge accumulated in each discipline.
Management system	<ul style="list-style-type: none"> • Steered by IISD. • Financial support to IISD comes from various sectors. One of the main funder is Canadian government.
Policy recommendation process	<pre> graph TD A[Knowledge network] --> B[accumulation of knowledge for decision-making] B --> C[IISD] C --> D[policy makers] </pre>

(2) Millennium Ecosystem Assessment (MA)

Outline	<ul style="list-style-type: none"> • Designed to improve the management of the world’s natural and managed ecosystems by helping to meet the needs of decision-makers and the public for peer-reviewed, policy-relevant scientific information on the condition of ecosystems, consequences of ecosystem change, and options for response. The MA will provide information and also build human and institutional capacity to provide information. • A primary audience for the global findings of the MA is the parties to the ecosystem-related conventions, in particular with the Convention on Biological Diversity (CBD), the Convention to Combat Desertification (CCD), and the Wetlands Convention (Ramsar). Other important audiences include national governments, NGOs, civil society, business, indigenous peoples, and the media. • The results of the Assessment will be released in early 2005.
Network objective	<ul style="list-style-type: none"> • The goals of the MA are to bring more detailed and reliable information on resource management for decision-making at local, national, regional and global scales, and to provide the scientific underpinning to a wide range of existing and new efforts to address our increasingly complex environmental and development challenges.
Composition	<ul style="list-style-type: none"> • individual experts in relevant fields, users of the Assessment
Network patterns	<ul style="list-style-type: none"> • Working groups and workshops in each discipline. • Board (representing “users” of the Assessment) , Assessment Panel, Exploratory Steering Committee • Linkages with Research and Assessment Activities <ul style="list-style-type: none"> - with other global assessments, including the UNEP Global Environmental Outlook, the Global International Waters

	<p>Assessment, and the Intergovernmental Panel on Climate Change.</p> <ul style="list-style-type: none"> - with research programmes such as the International Geosphere Biosphere Programme (IGBP) and the International Human Dimensions Programme on Global Environmental Change (IHDP) - with monitoring activities, including the Long Term Ecological Research Network and the Global Observing System.
Information exchanged through the network	<ul style="list-style-type: none"> • Research and evaluation results
Management system	<ul style="list-style-type: none"> • The MA does not have a “core secretariat” as such. The MA Director will work directly with the staff of the distributed secretariat based at each of the co-executing agencies. This distributed secretariat will coordinate the overall network of individuals and institutions and ensure that decisions of the Board, Executive Committee, and Assessment Panel are carried out by the appropriate individuals or institutions. A total of six different institutions will provide core administrative, logistical, and technical support to the working groups that will under take the assessment. • Support from international organisations, national governments, foundations, and relevant research organisations including GEF, the United Nations Foundation, the World Bank and others.
Policy recommendation process	<p><u>Assessment process of the MA</u></p> <p><u>Identification of set of methodologies</u> for conducting the assessment at local, national, regional, and global scales.</p> <p><u>The scientific work of the MA</u> The works is undertaken by four working groups. Each working group focus respectively on sub-global assessment; current ecosystem extent, trends, conditions and value; scenario; and response options. Each working group is co-chaired by leading natural and social scientists from industrialised and developing countries.</p> <p><u>Peer Review</u> Reviewers from all countries will be nominated by scientists, governments, business, and civil society. The review process will be developed and overseen by the MA Board and an independent review body.</p>

(3) Asia-Pacific Environmental Innovation Strategy Project (APEIS)

Outline	<ul style="list-style-type: none"> • A programme based on the results of long-term perspective projects (LTPP) proposed at ECO ASIA 2001. • APEIS consists of three scientific sub-projects; 1) satellite- and ground-based integrated monitoring (IEM: Integrated Environmental Monitoring), 2) assessments using environment-economy integrated models (IEA: Integrated Environmental Assessment), and 3) research on innovative and strategic policy options (RISPO).
Network objective	<ul style="list-style-type: none"> • The project aims to establish scientific infrastructure on environment and development and to provide policy makers with knowledge-based tools and innovative policy options that can support their informed decision-making for sustainable development in the Asia-Pacific region.
Composition	<ul style="list-style-type: none"> • Governmental and non-governmental research institutes • The National Institute for Environmental Studies (NIES) of Japan and IGES take initiative of each sub-project. • APEIS fully incorporates and utilises resources of existing regional initiatives, activities and projects by promoting collaboration and coordination, e.g., with ECO ASIA, the Asia-Pacific Network for Global Change Research (APN) and relevant international research projects
Network patterns	<ul style="list-style-type: none"> • Joint research with various research bodies, workshops, and meetings.
Information exchanged through the network	<ul style="list-style-type: none"> • Observation results • Research results
Management system	<ul style="list-style-type: none"> • Funding: the Ministry of Environment of Japan • Cooperation with UNEP and ADB under study
Policy recommendation process	 <p>The diagram illustrates the policy recommendation process. It begins with 'Mission: Ecosystem Assessment and other international projects' leading to 'Create linkings and cooperative structures'. This leads to 'International Scientific Activities (Participation of research institutes in region)'. Within this, 'International organizations (ADB, UNEP, UNU)' and 'APN (Research, Networking, Capacity Building)' are involved in 'Joint project collaboration'. The process includes 'Satellite- and ground-based integrated monitoring', 'Assessment using environment-economy integrated models', and 'Strategic database for policy making'. This leads to 'Research on innovative and strategic policy options', which produces a 'Scientific database and options'. This database provides 'Policy guidance' to 'APED and other international forums' and also feeds back into 'International Scientific Activities'. The process continues through 'Expertizing IECO ASIA Panel' and 'Environment Ministers' meeting (ECO ASIA)' to finally 'Propose Asia-Pacific model' at the 'World Summit on Sustainable Development (WSSD)'.</p>

3-3. Challenges for network maintenance and effective exchange of information

Interviews were conducted with all category A networks and initiatives, with the exception of ECO-ASIA NET, to identify problems being faced. Possible collaboration with other entities and/or networks for solving the problems was also raised as indicated in the table below.

Problems being faced (number of networks that realise the problem)	Possible collaboration for problem solving
<p><u>Capacity building (3):</u> Human resource development is necessary to ensure maximum use of technologies and expertise transferred through networks.</p>	<p>Collaboration with -Organisations that provide training programmes such as JICA. -Inter-city networks engaged in capacity building.</p>
<p><u>Less access to international/regional dialogues (2):</u> Local governments usually do not have direct access to international and/or regional dialogues. The tie with national government should be strengthened so that local governments' views can be more reflected to such dialogues. It is also necessary to create opportunities for local government to have direct access to international /regional dialogues.</p> <p>Access to regional policy dialogues such as ECO ASIA and ESCAP Ministerial Conference of Environment and Development should be further facilitated to present research outputs effectively.</p>	<p>Establishment of closer connection with central governments.</p> <p>Enhancement of collaboration with inter-governmental networks.</p>
<p><u>Language barriers (2):</u> All members cannot collect necessary information and disseminate it in English. All users cannot fully understand the information provided in English.</p> <p>Language barriers exist in communication in English with local counterparts.</p>	<p>Collaboration with local NGOs and other networks in each country to disseminate the outputs of the initiative.</p>
<p><u>Funding (2):</u> Businesses and local governments don't have much financial leeway under the current economic conditions.</p> <p>To respond the needs of members timely, the Secretariat needs its independent fund.</p>	<p>Exploration of the possible financial assistance from international organisations and governments.</p>
<p><u>Constituents of network (1):</u> To collect more good practices, participation of cities in developed countries should be promoted.</p>	<p>Collaboration with inter-city networks in developed countries.</p>
<p><u>Less access to national policies (1):</u> Impacts to national policy-making is rather weak because the network focus on collaboration among local governments.</p>	<p>Enhancement of collaboration with governments.</p>

<p><u>Needs identification (1):</u> It is difficult to fully understand the individual needs of a central or a local government. Existing mechanism of needs identification (through Internet) alone is not enough.</p>	<p>Collaboration with other networks among local governments.</p>
<p><u>Effective dissemination of project results (1):</u> The output of research work should be present to NGOs, industry and government in an easy-to-understand manner.</p>	<p>Enhancement of collaboration with not only research institutes, but also NGOs, industry and inter-governmental networks.</p>

The interviews also identified other typical constrains in ineffective networks. The following table summarises typical failures and underlying causes.

Failures	Underlying causes
<p>Little impacts of recommendations and/or outputs provided by a network</p>	<ul style="list-style-type: none"> - out of the needs and interest of users - difficulties in accessing the information (e.g. inappropriate search engine) - one-way communication (no interactions with users) - passive users - insufficient capacity of users to utilise the information provided - unappealing information (e.g. already well-known information, information that can be obtained everywhere) - too specific contents (little potential for replication) - low visibility - language barriers
<p>Limited flow of information</p>	<ul style="list-style-type: none"> - lack of clear mandate - difficulties in accessing the information - no useful information exchanged - no mechanism of interactions among network members and users - low visibility - low capacity of coordination body
<p>Weak linkage among network members</p>	<ul style="list-style-type: none"> - lack of face to face communications (communications only through the Internet) - long interval of or no up-date - lack of incentives to join the network - lack of leadership - lack of effective coordination body - lack of financial sources

3-4. Common features of networks and initiatives aiming to make policy recommendations

The following can be given as functions and communication methods common to networks and initiatives surveyed under category B.

- (1) Target audience is clear.
- (2) Majority of members are experts and specialists in relevant fields.
- (3) Time-lines of the initiatives are clearly defined.
- (4) Financial support was provided by national governments and UN organisations.
- (5) Exchange of knowledge and information is the main form of communication.

The overview of networks and initiatives in category B also leads the following presumed factors that enable a network/an initiative to present its policy recommendations to regional and international community in an effective way.

- 1) Structure for making influential recommendations
 - Participation of organisations and people that are influential in respective countries
 - Participation of organisations with internationally well-recognised
 - Participation of world authorities in the field of research concerned
 - Effective utilisation of existing networks
- 2) Effective communication mechanisms
 - Face-to-face communication e.g. through conferences
 - Provision of proactive information based on users needs
 - Presence of an entity (entities) that can take leadership and serve as an active coordinator of a network members
 - Originally/uniqueness of information exchanged
 - Exchange of new information (information should be also updated on a timely basis)
 - Creation of a give-and-take mechanism that is beneficial to information providers
 - Open discussion as necessary on web site.
- 3) Management system
 - Management by exclusive operators
 - Maintain active flow of requests and inquiries
 - Management under a body that is proficient at public relations activities
 - Existence of coordination body that has good access to available funding.

4. Key Elements for Effective Networks

The survey identified the following four items as key elements for effective networks.

a) Clear mandates and timelines

Without clear mandates, networks cannot function properly. The mandate, target audience, and mode of operation of the network should be clearly defined before its launching. The needs of the target audience should be carefully examined. Clear timelines should be also set to make it effective.

b) Appropriateness of constituents

Constituents of a network are an important factor to determine the degree of ties among network members. Inappropriate constituents adversely affect the quality of information exchanged/provided. The following points were singled out for consideration:

- existence of a capable coordination body that can take leadership
- expertise of members suitable to the mandate of the network
- certain degree of capacity of members to formulate policy recommendations
- utilisation of expertise outside of the region

c) Mechanisms that facilitate flow of useful information

The survey concluded that a network will be weakened if it fails to provide useful information that fits the needs of both network members and users. To provide useful information, a network should develop mechanisms to:

- keep up with the needs of users and participating members
- keep the information provided up-dated
- encourage capacity development of members and users e.g. through collaborative research and/or implementation of joint projects

d) Stable funding

Funding is a must in order to maintain a network.

In Closing

A network can work effectively when proactive exchange of information among network is facilitated under clear mandates and timelines, with stable funding. However, it is extremely difficult to build such a network in a single bound. In the Asia-Pacific region, individual cooperation among strategic research institutes already exists. In designing NetRes, enhancement of such existing networks/collaboration should be fully considered as a foundation of the network.

The survey showed that capacity development is an important key to promote actual implementation. It is also an incentive of proactive participation of relevant stakeholders. Thus, NetRes should be designed with some mechanism of capacity development so that it can be a driving force to implement policy recommendations of APFED.