



Asia-Pacific Economic Cooperation

APEC Senior Officials

**2001 Report on
Economic and Technical Cooperation**

Ministerial Meeting XIII

October 2001

Shanghai, The People's Republic of China

Published by the APEC Secretariat
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APEC #201-ES-01.1
ISBN981-04-4835-X

**SOM 2001 REPORT ON
ECONOMIC AND TECHNICAL COOPERATION**

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FOREWORD

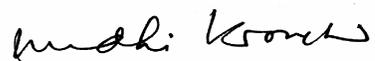
The year 2001 has turned out to be one of the most exciting years for me as ESC Chair and an APEC supporter. Brunei had already placed special emphasis on human capacity building as a major APEC deliverable last year. This year, China has continued to put her weight behind this important (ECOTECH) component, resulting in the *Beijing Initiative on Human Capacity Building* and the development of the *Human Capacity Building Strategy*. Members also agreed to support the updating of Part II of the *Osaka Action Agenda* by APEC working groups in order to maintain it as a living document. We now have an up-to-date guiding principle on economic and technical cooperation (ECOTECH) in APEC that will help members to plan and operate ECOTECH activities for many years to come.

Another exciting event during 2001 was, of course, the successful agreement among members to experiment with the preparation of ECOTECH Action Plans (EAP) on a trial basis over the next two years. To me, this has lifted ECOTECH to be on par with TILF (trade and investment liberalisation and facilitation), as an equal objective of APEC. Admittedly, the debate on this issue during the second ESC meeting this year was robust and difficult at times, but the cooperative spirit shown among members in finding and reaching an acceptable outcome has been most gratifying for me. I am also happy to see progress on the ECOTECH aspects of the APEC Food System Initiative and closer working relations between the ESC and other APEC-related organisations such as the APEC Business Advisory Council (ABAC), the Pacific Economic Cooperation Council (PECC), the APEC International Assessment Network (APIAN) and the Foundation for Development Cooperation (FDC).

Last year I received consent from members of the ESC and the SOM to structure the scope of work of the ESC into three categories: coordination, dissemination and participation. This practice has continued this year. By adopting this multi-dimension function of the ESC we were able to expand our activities and outlook to fulfil the tasks that were assigned to us by the SOM, Ministers and Leaders, and the other tasks that we should be doing in order to enhance the role of ECOTECH in APEC.

I would like to thank all members of the ESC for working together to achieve good results in economic and technical cooperation in APEC. Many Senior Officials, Lead Shepherds and Chairs of APEC fora and others have helped the ESC in various ways, for which I am grateful. In particular, I wish to acknowledge the efforts of the working groups in updating Part II of the OAA and for their contributions to this year's ECOTECH Report. I also wish to thank Mr Wang Guangya and his team for putting great trust in the work of the ESC, and for their assistance in, and encouragement of, our work. As always, the APEC Secretariat under the leadership of Ambassador Zhang Yan provided its able staff to help organise all the ESC meetings and prepare this report. In the past two years, Mohan Mathews, who is in charge of the ESC activities at the APEC Secretariat, has been instrumental in bringing the work of the ESC to a high standard of efficiency. Without his devotion to his work and assignments, I don't think we could have accomplished what we have achieved in the ESC today. I thank him deeply for that. I also thank my assistant, Ms Jaroenjit Pothong, who has provided valuable support to me during the past two years.

Finally, I thank the Ministry of Foreign Affairs of the Government of Thailand in nominating me as the Second Chair of the ESC in 1999, and in providing all the necessary assistance and support to me and my assistant to carry out our necessary duties. I look forward to returning the favour by using the experience that I have gained in the past two years to help it organise the Thailand APEC Year in 2003.



Medhi Krongkaew
ESC Chair

EXECUTIVE SUMMARY

In welcoming the first Senior Officials' Meeting (SOM) report on Economic and Technical Cooperation (ECOTECH) activities in 1998, Ministers called for the report to be submitted annually. This presents an ideal opportunity for an annual stocktake of ECOTECH activities being carried out by member economies and APEC fora.

This year the ECOTECH Sub-committee of the SOM (ESC) has accomplished three major tasks: the update of Part II of the *Osaka Action Agenda* (OAA) - the first since 1995; the introduction of ECOTECH Action Plans (EAPs) in response to the call by Ministers last year for officials 'to consider the possibility of establishing IAPs (Individual Action Plans) on ECOTECH'; and the development of the *Human Capacity Building Strategy for the New Economy*.

The ESC may need to continue to expand its working relations with organisations both within and outside the APEC process to effectively carry out its emerging responsibilities. For example, in coordinating cross-cutting themes such as human resources development (HRD), Science and Technology, and small and medium-sized enterprises (SMEs); and in monitoring the implementation of the updated OAA Part II. With respect to outside organisations, the ESC expresses its appreciation for the interest shown in its work by the PECC, APIAN and FDC.

The ESC recognises that APEC goals would be undermined if outcomes of ECOTECH activities are not clearly articulated to the community. To this end, it will liaise with working groups in identifying outstanding projects which could be used to demonstrate how APEC is contributing to improving the economic and social well-being of the people.

The 2001 report is in seven chapters with ten Annexes. It includes an assessment of the number and types of ECOTECH projects being conducted by APEC fora and reports from individual fora on their ECOTECH activities. Progress in the implementation of key ECOTECH initiatives is presented in Chapter 3. It includes: initiatives launched in 1998 on skills development and science and technology cooperation for which annual reporting was requested by Ministers; and the outcome of the 2001 High-Level Meeting on human capacity building (HCB), strengthening markets and sustainable development activities. How well the guidance provided by the ECOTECH Sub-committee of the SOM (ESC) in 1998 is being followed by APEC fora in the implementation of projects is discussed in Chapter 4. A report on the major accomplishment of the ESC this year-the development of EAPs is in Chapter 5, before the recommendations and conclusions of this year's ECOTECH report are presented.

The main findings of this year's report are:

- The 1995 OAA (now updated) and the 1996 *Manila Declaration* are defining documents on APEC's ECOTECH agenda and they should be referred to by APEC fora when planning ECOTECH activities.
- A total of 148 projects were found to be contributing to the six broad ECOTECH themes. Of those 47% were funded from the TILF Special Account (funded by Japan), 38% from the Operational Account (funded collectively by APEC members) and around 15% were fully self-funded projects (by individual APEC economies).
- Although TILF-funded projects are designed principally to meet trade liberalisation and facilitation objectives they also fulfil ECOTECH objectives, notably in information sharing, training and capacity building.
- More than one-third of the projects are aimed at the 'developing human capital' theme and almost all fora have at least one project under this category.
- Of the 148 projects that have been completed or are in progress in 2001, around 28% involve information gathering (e.g., studies), 47% information sharing (e.g., seminars and websites), and 19% training. The remaining projects cover activities such as developing best practice models and conducting expositions.
- Over the last four years, ECOTECH work has become an increasingly integral part of the work of the APEC Finance Ministers' Process.
- In response to the 1998 *Kuala Lumpur Action Program on Skills Development*, the Human Resources Development Working Group (HRDWG) has adopted a Medium-term Strategic Plan that includes a focus area aiming to improve the quality of curricula, teaching methods and instructional materials in education, training, and skills development at all levels.
- The *Beijing Initiative on APEC Human Capacity Building*, launched in May 2001, lays the foundation for enhanced HCB work in APEC based on a model of cooperation involving stakeholders including the government, business/private, and training and education sectors.
- APEC fora, especially the Industrial Science and Technology Working Group (ISTWG) and Agricultural Technology Cooperation Working Group (ATCWG), have been active in the further implementation of the *Agenda for Science & Technology Industry Cooperation*.
- In reviewing the contributions from working groups to the updating of Part II of the OAA, the ESC noted the importance of fully reflecting the ECOTECH elements of key cross-cutting initiatives agreed by Ministers and Leaders since 1995, including: sustainable development; gender integration; and the APEC Food System.
- The ESC is satisfied that APEC fora are observing the 1998 *Guidance on Strengthening Management of APEC ECOTECH Activities* and are taking steps to avoid duplication of, and involve the business/private sector in, projects. It is also satisfied that the APEC Secretariat has been effectively carrying out its role in the management of ECOTECH activities.
- The ESC remains concerned that insufficient attention is being paid, when projects are being formulated, to the outcomes of projects: how they actually

relate to specific ECOTECH objectives and initiatives, and how the results can be used for outreach purposes.

- The EAPs provide a basis for members to report on the individual and cooperative actions that they have completed, are carrying out or are planning to implement, in response to the HRD Common Policy Concepts in Part II of the OAA.

The ESC would like to record its deep appreciation of the valuable contribution the Chair, Dr Medhi Krongkaew, has made to its deliberations and work program. It warmly welcomes the election of Ambassador Elard Escala of Peru, as the ESC Chair from 2002 and the offer of the Philippines to fill the Vice-Chair position.

YEAR 2001
SOM REPORT ON ECONOMIC AND TECHNICAL COOPERATION
TO THE THIRTEENTH MINISTERIAL MEETING

1 INTRODUCTION

While the origin of APEC is so well known as to obviate any need to repeat it here, the same cannot be said about the origin of its Economic and Technical Cooperation (ECOTECH) programs. Although it is true that sectoral working groups with cooperative programs were established soon after the formation of APEC, their main emphasis was on sectoral trade and investment liberalisation and facilitation (TILF) issues and not on ECOTECH as such. It was not until 1994 when Indonesia, as host of APEC, sought to have TILF activities supported by 'development cooperation' that this element of APEC's activities was given prominence. The term 'development cooperation' was later changed to 'economic and technical cooperation' to make sure that APEC would not turn into another forum for development aid. ECOTECH, therefore, is aimed at building capacity and skills, particularly in developing member economies, to enable them to take part in the liberalisation process.

The clearest sign of the 'birth' of ECOTECH was when Leaders launched the *Osaka Action Agenda* (OAA) at their meeting in Japan, in 1995. ECOTECH activity which directly supports trade and investment liberalisation and facilitation is mainly dealt with in Part I of the OAA and is coordinated by the Committee on Trade and Investment (CTI). Whereas the common policy concepts for the sectoral working groups, the joint activities and the policy dialogues that each of them should undertake are dealt with in Part II and, since 1998, have been overseen by the ESC.

In 1996, the goals and organising themes for ECOTECH activities were further defined with the adoption of the *Declaration on an Asia-Pacific Economic Cooperation Framework for Strengthening Economic Cooperation and Development* (*Manila Declaration*).

APEC's ECOTECH goals, under the 1996 *Manila Declaration*, are to:

- attain sustainable growth and equitable development in the Asia-Pacific region;
- reduce economic disparities among APEC economies;
- improve the economic and social well-being of the people; and
- deepen the spirit of community in the Asia-Pacific.

The guiding principles for ECOTECH are:

- mutual respect and equality;
- mutual benefit and assistance;
- constructive and genuine partnership; and
- consensus-building.

Together, the 1995 OAA (now updated) and the 1996 *Manila Declaration* are the documents that define how APEC's ECOTECH agenda is set. Essentially, ECOTECH activities complement and support APEC's broader trade and investment liberalisation and facilitation objectives, including by recognising that liberalisation will not be effective unless developing economies have the systems and information available to meet those obligations. They should be 'goal-oriented with explicit objectives, milestones, and performance criteria'. In pursuing economic and technical cooperation, Ministers encouraged member economies to 'develop an environment favourable to the effective operation of market mechanisms and integrate into the cooperation process the business/private sector as well as involve, wherever possible, other pertinent institutions'.

APEC does not have a huge central fund for general economic development purposes. Therefore, APEC's ECOTECH agenda focuses on capacity building and cooperation to upgrade the ability of member economies to meet the Bogor goal commitments of free and open trade and investment and sectoral objectives. In practice, ECOTECH has focused on policy dialogues, sharing best practices and experience, sharing information to promote transparency and knowledge, harmonisation of standards or mutual recognition, and training in support of Bogor goals and implementation of international commitments. Participation in these joint activities is on a voluntary basis. Activities can be wholly or partly financed from APEC central funds, self-financed by member economies or carried out with contributions from outside sources.

As the number of projects conducted by APEC fora increased over the years, it became apparent that there was a need for the ECOTECH agenda to be managed more strategically. Following Ministerial endorsement in Vancouver, Canada, in 1997, the ESC was established in April 1998 to assist Senior Officials coordinate and manage APEC's ECOTECH agenda, as well as to identify value-added initiatives for cooperative action. The terms of reference of the ESC are given in **Annex 1**.

One of the first tasks before the ESC was the organisation of project information according to the six ECOTECH themes. It allowed Ministers, for the first time, to have a clearer picture of the number of projects that was being carried out by each APEC forum under each of the six ECOTECH themes and where the gaps were. The ESC also drew up the *Guidance on Strengthening Management of APEC ECOTECH Activities*, which was endorsed by the SOM in 1998 in Kuching, Malaysia. The guidelines encouraged fora to develop outcome-oriented projects in response to the six ECOTECH themes and to foster greater business/private sector involvement in projects, and encouraged the APEC Secretariat to improve information flow through the development of a Projects Database.

In response to the recommendation for a more dynamic retrieval of project information, the APEC Secretariat established the Projects Database in 1999. With better information on projects, the ESC was able to categorise ECOTECH activities by type to determine how much effort was being devoted to information sharing through seminars/workshops, websites/databases and how much to delivering practical outcomes such as training programs. Information retrieval was further enhanced with the establishment of the ECOTECH Clearing House last year.

The concept of the APEC ECOTECH Clearing House was developed in response to Leaders' and Ministers' priorities of strengthening the coordination of the ECOTECH agenda, and improving the effectiveness of economic and technical cooperation activities. The ECOTECH Clearing House is a website that indexes all relevant information on APEC ECOTECH activities. It provides fast and direct access to a unique collection of information, which demonstrates the investment in, and benefits of, APEC's ECOTECH activities. The ECOTECH Clearing House also provides facilities for the exchange of information between potential partners in ECOTECH activity.

With these management tools in place, the ESC, with Dr Medhi Krongkaew of Thailand as Chair, met on three occasions this year in China to assess the implementation of ECOTECH across fora. The first meeting was held in Beijing from 15-16 February 2001; the second in Shenzhen from 30-31 May 2001, following which SOM endorsed the ESC's 2001 work program (**Annex 2**); and the third meeting was held in Dalian from 20-21 August 2001.

This year's ECOTECH report analyses the projects that have been carried out by APEC fora, and reports on the implementation of the various ECOTECH initiatives, recommendations and management tools.

2 ECOTECH PROJECTS IMPLEMENTED IN 2000-2001

In 1996 Ministers adopted the *Manila Declaration on an APEC Framework for Strengthening Economic and Technical Cooperation and Development*, which identified the themes, priorities, specific goals and guiding principles "that will govern the nature and character of a strengthened economic and technical cooperation towards an Asia-Pacific community". In endorsing the *Manila Declaration*, APEC Leaders recognised that their "vision of community can be strengthened only if our efforts benefit all citizens". They considered ECOTECH to be an essential complement to the TILF agenda to help "APEC members to participate more fully in, and benefit from, an open global trading environment, thus ensuring that liberalised trade contributes to sustainable growth and equitable development and to a reduction in economic disparities". Leaders instructed that the principles laid out in the *Manila Declaration* be applied to the activities of relevant fora to the six organising themes: developing human capital; fostering safe, efficient capital markets; strengthening economic infrastructure; harnessing technologies for the future; promoting environmentally sustainable growth; and encouraging the growth of small and medium-sized enterprises.

Since its formation in 1998, the ESC has been reporting annually on the implementation of the *Manila Declaration*. In the 1999 and 2000 ECOTECH reports, the ESC reviewed the coordination of ECOTECH activities under each of the six organising themes and made a number of recommendations to APEC fora. This year's report reflects on how various fora are contributing to the implementation of the principles of the *Manila Declaration*, including its emphasis on constructive and genuine partnerships that would include "a working partnership with the business/private sector, other pertinent institutions and the community in general, to ensure that cooperation is consistent with market principles".

The ESC, with assistance from the APEC Secretariat, assessed ECOTECH projects that were in progress or completed in 2001. Project information was sourced from the APEC Secretariat's Project Database and, where available, progress and evaluation reports of projects. The ESC evaluated the activities with the following criteria broadly in mind:

- Duplication;
- Gaps;
- ECOTECH priorities and goals of the *Manila Declaration*;
- Relevance to specific ECOTECH initiatives;
- Whether the outcomes met the intended objectives;
- Relevance to business/private sector, including participation and/or funding;
- Compliance with the *Guidance on Strengthening Management of APEC ECOTECH Activities*;
- Compliance with the *ECOTECH Weightings Matrix*; and
- Shortcomings.

Information on ECOTECH projects and activities undertaken by APEC fora in 2001 can be accessed from the APEC Secretariat's Project Database <http://www.apecsec.org.sg/> or the ECOTECH Clearing House at <http://www.apec-ecotech.org/>. A table summarising the number of projects that are in progress or were completed in 2001 under each ECOTECH priority theme is at **Annex 3** and that summarising the type of ECOTECH activities is at **Annex 4**.

2.1 Key Findings

In the period surveyed, a total of 148 projects were found to be contributing to the six broad ECOTECH themes. Of those 47% were funded from the TILF Special Account (funded by Japan), 38% from the Operational Account (funded collectively by APEC members) and around 15% were fully self-funded projects (by individual APEC economies). Notwithstanding APEC funding, in many cases project costs are substantially supplemented by contributions (monetary and in-kind) from participating member economies. That act, in itself, is a manifestation of the cooperative spirit that prevails and the will of members to fulfil the ECOTECH goals of deepening the spirit of community in the Asia-Pacific and improving the economic and social well-being of the people.

Of note in the analysis is that although TILF-funded projects are designed principally to meet trade liberalisation and facilitation objectives they also fulfil ECOTECH objectives. By contributing to training, capacity building and information sharing, albeit in the TILF area, fora such as the CTI make an often overlooked contribution to APEC's overall ECOTECH effort, as envisaged in Part I of the OAA.

ECOTECH projects in progress or completed in 2001 are spread unevenly across the six ECOTECH themes. Demonstrating the need for capacity building and skills development, especially among developing economies, more than one-third of the projects are aimed at the 'developing human capital' theme and almost all fora have at least one project under this category. Not surprisingly, the sectoral working groups more closely aligned to themes such as harnessing technologies for the future, sustainable development and SMEs have the bulk of their activities centred on those themes. Work on the theme relating to strengthening markets continues to be carried out mainly by the Finance Working Group (Finance Ministers' process) and, though small in number, these projects meet specific training requirements.

The number of projects categorised by ECOTECH themes are as follows:

Developing human capital	53
Developing stable, safe and efficient capital markets	5
Strengthening economic infrastructure	12
Harnessing technologies for the future	27
Promoting environmentally sustainable development	34
Encouraging the growth of SMEs	17
Total	148

The ESC has continued the practice of classifying APEC projects according to broad categories that best describe the type of activities being undertaken (**Annex 4**). The exercise this year shows that around 28% of the projects involve information gathering (e.g., studies), 47% information sharing (e.g., seminars and websites), and 19% training. The remaining projects were directed at developing best practice models and conducting an exposition. These figures are roughly in line with those last year, with a slight decrease in the information gathering category and slight increase in the other two categories.

The number of projects categorised by type of activity is as follows:

Survey/Study/Report	42
Workshop/Seminar	59
Training	28
Standards/Best Practice	7
Database/Website/Network	11
APEC Centre/Exposition	1
Total	148

2.2 Activities of APEC Fora

Agriculture Technical Cooperation Working Group (ATCWG)

As the only forum dealing with agricultural biotechnology, the ATCWG has steadily implemented various activities to enable members to keep up with developments in this field. In 2001, the ATCWG published two booklets '*Communicating About Agricultural Biotechnology in APEC Economies: A Best Practices Guide*' and the '*Implementation Plan: Strategy and Timetables of Activities*'. The first is aimed at assisting member economies to establish individual communications strategies. The second is a comprehensive plan that covers ATCWG's medium-term activities in the areas of science-based assessment of biotechnology, technical cooperation, transparency and information exchange, and capacity building. The ATCWG is also conducting an APEC-funded 'Workshop on Capacity Building, Safety Assessment and Communications in Biotechnology'. Under this project, presented jointly with the Japan International Research Center for Agricultural Sciences (JIRCAS), the ATCWG held the APEC-JIRCAS Joint Symposium and Workshop on Agricultural Biotechnology in September 2001. The workshop comprised a one-day symposium which will overview current issues on agricultural biotechnology, a four-day workshop which will deliberate on specific issues on biotechnology, and a three-day training workshop on environmental and food safety.

A workshop on 'Issues Concerning Both Food Supply and Demand' was convened in March 2001, to exchange information on agricultural production and those factors that can affect it. Issues such as food consumption, trade, stock levels, government policies and the effects of economic development on the agricultural sector, including adverse climate events and/or general climatic trends were discussed. The possibility of the establishment of an Information Network System was also discussed. As one of the possible components of this network, member economy reports from Chinese Taipei, Chile, the Republic of Korea and Japan were submitted and are currently available on the ATCWG website (http://www.aicaf.or.jp/atc/database/database_index.htm).

In the area of agricultural technology transfer and training, the ATCWG held a seminar in February 2001. The objective of that seminar was to exchange information on ways to develop a method to promote farmers' participation in agricultural technology transfer and training, the desirable future system of training and extension and ways of introducing technology transfer to farmers.

Containment of transborder movement of plant pests was the subject of another project conducted by the ATCWG, which aimed to help members:

- Identify priority plant pests for the region and gaps in each economy's capacity to detect and manage those pests;
- Determine the availability and size of biological collections and databases or other information management systems in each economy and the capacity of economies to access and manage data on their plant health status; and
- Improve cooperation between APEC economies to manage information on plant pests.

At the workshop, further activities were agreed in the areas of diagnostic capacity and needs assessment, reference collections, communications, target lists, regional standards, and interception data and incursion reports.

Recognising the importance of agricultural finance the ATCWG conducted a training course to promote farmer-owned cooperative farm credit systems and help the agricultural finance institutions undertake major institutional improvements.

Other workshops planned this year by the ATCWG include:

- Sustainable Agriculture: to review available technologies on sustainable agriculture and discuss related environmental issues and the relationship between sustainable agriculture and rural development;
- Conservation and Utilisation of Plant and Animal Genetic Resources: to identify possible information needs and cost-effective information-collection methods. It will allow discussion on: appropriate monitoring; evaluation and reporting mechanisms; information sharing on, and development of, genetic resources among APEC economies; and building capacity for conventional and innovative technologies in this area.

The importance of post-harvest technology work can be appreciated when one considers the magnitude of post-harvest losses, particularly in developing economies-stored grain (25%), fruit (25-50%), and vegetables (40-70%). The reduction of avoidable losses will have a significant impact on the economies of the region and, among other things, will reduce the need for more land to be put into agriculture, reduce the usage of fertilisers and increase opportunities in related industries. To address the problem, the ATCWG is conducting an APEC-funded project: 'APEC Institutional Linkage for Human Resource Development in Post Harvest Technology'. The objectives of the workshop are to

- Enhance the quality of academic programs in post-harvest technology;
- Develop and institute curricular and training programs in universities (The project has finalised curricula for graduate diploma, MSc and PhD in Post-harvest Technology, and developed a training manual for post-harvest handling systems);

- Improve productivity and competitiveness in the post-harvest industry, and
- Develop networks of national and international institutions.

Energy Working Group (EWG)

The work of the EWG covers a broad range of ECOTECH activities, which contribute to the betterment of the daily lives of APEC member communities.

Energy is an essential input to ongoing and sustainable economic development. The EWG's activities are aimed at facilitating energy market reform and business/private sector investment in energy infrastructure that will directly benefit APEC communities through an enhanced ability to provide electricity and gas to communities. Provision of energy improves living conditions and provides the potential for further development of economic, social and community infrastructure. Accordingly, the EWG has been contributing to the goals and objectives of the *Manila Declaration*, under all six priority ECOTECH themes.

Under the *human resources development* theme, the EWG has undertaken several capacity building workshops and seminars aimed at a transfer of technical and professional skills. The EWG's Expert Group on Energy Efficiency and Conservation delivered a recent workshop, which provided participants with the knowledge and expertise necessary to build and operate testing laboratories. These basic activities allow greater harmonisation of testing regimes and prevent the proliferation of differing tests for energy-using products. Ultimately, these human capacity building activities reduce costs to business and reduce non-tariff (technical) barriers to trade.

The EWG has been undertaking a project examining opportunities for strengthening ongoing microeconomic reform processes in member economy energy markets and barriers to the introduction of microeconomic reforms. The project will result in general recommendations on how member economies can improve the efficiency with which their energy markets operate. Activities associated with the implementation of *Best Practice Principles for Independent Power Producers* and the *Natural Gas Initiative* are aimed at improving investor confidence and reducing the risks associated with financing energy infrastructure development projects.

In their message to APEC Economic Leaders, at the fourth meeting of APEC Energy Ministers (San Diego, USA, 12 May 2000), Energy Ministers highlighted the important role energy plays in facilitating the region's economic recovery, and in building the region's economic and social future.

The growth in regional energy demand, particularly in the electricity generation sector, is the major driving factor behind all other regional energy issues. APEC Economic Leaders have identified energy as a potential bottleneck in regional economic growth. Directly associated with a rapid growth in demand for electricity, is the demand for capital to underwrite investment in infrastructure, which is in turn required to meet the demand for electricity. It is estimated that approximately US\$1.6 trillion worth of investment capital for power infrastructure (for total system costs, not just electricity generation) is required to meet electricity demand in the APEC region to 2010.

The EWG recognises, therefore, that it is crucial to encourage investment in infrastructure development, given the projected growth in energy demand in the APEC region. For the past two and a half years, an initiative aimed at facilitating investment in power infrastructure has been an important component of the EWG's work program; and the role of the Energy Business Network (EBN) in that process is central to its success.

The EWG and EBN have developed a program of Implementation Facilitation Assistance Teams (IFAT). These teams consist of energy experts from the public and/or business/private sectors of member economies who provide advice to members on options and approaches to reform in both the power generation and natural gas sectors. In recognition of the close linkages between trade and investment issues and technology issues, and the broad nature of the APEC energy program, host economies are encouraged to consider trade and investment requirements as well as technology requirements in offering invitations to the IFAT.

The IFAT activities are aimed at providing practical support to economies wishing to take concrete steps toward meeting their infrastructure development challenges, whilst ensuring that these challenges are met in the most efficient and environmentally benign way.

APEC Leaders have also noted the threat to ongoing economic growth in the APEC region posed by continuing high oil prices. The EWG is delivering an energy security initiative: 'Petroleum Stocks as an Option to Respond to Oil Market Disruptions'. This will form part of a broader response to APEC Leaders from the EWG aimed at mitigating the future impacts of oil market disruptions.

The EWG seeks to maximise technology assimilation by increasing each members' ability to assess, operate and maintain new and renewable energy technologies. It does so through its Expert Group on New and Renewable Energy Technology, and a number of specific initiatives.

A Green Buildings workshop was held in Taipei, Chinese Taipei in October 2000. It promoted environmentally sound, business/private sector investment in the commercial buildings sector; and was a focal point for collection and dissemination of state-of-the-art information on 'green' building technologies as well as providing information on multi-disciplinary approaches to their application. As a result, APEC members are able to:

- expand their capacities to absorb existing 'green' building and construction technologies; and
- enhance their abilities to develop new and innovative commercial building project delivery techniques.

Another EWG initiative, the *Environmentally Sound Energy Infrastructure Initiative* is examining effective policy practices that encourage clean technology transfers. It is examining barriers that may exist, such as lack of information on technologies available, or certain types of policies (not necessarily related to the environment) that may impede technology transfer and dissemination. Clean energy technologies will include those associated with cleaner burning of fossil fuels, as well as those associated with new and renewable energy sources.

The EWG's Expert Group on New and Renewable Energy Technologies is delivering the *21st Century New and Renewable Energy* initiative. This initiative will identify and address barriers to accelerating the penetration of new energy technologies into the market place.

The forecast growth in energy demand for the APEC region will place an increasing strain on the environment, unless environmentally sound measures to minimise the adverse impacts of energy production and use are implemented. The EWG has developed its work program to mitigate the environmental impacts of energy production, delivery, and use. Initiatives currently underway include promoting the advantages of clean fossil energy technologies and encouraging the adoption of policies and programs promoting energy conservation and the application of energy efficient technologies.

The *Environmentally Sound Infrastructure Initiative* is seeking to capture the best practice policies and practices from within APEC that encourage environmentally sound development of energy infrastructure. Other EWG work aims to encourage investment in environmentally sound natural gas supplies, infrastructure and trading systems. This helps members to increase the use of cleaner energy and helps to reduce emissions.

These initiatives and the delivery of a project looking at barriers to the introduction of distributed (small and usually much cleaner) electricity generation resources ensure a substantial contribution by the EWG to improvement in the environmental outcomes of energy use.

Many of the technical level activities undertaken by the EWG's Expert Groups encourage the participation of small to medium-sized enterprises. The establishment of the Energy Business Network (EBN) in March 1998 was to allow a business/private sector perspective on energy-related issues that could be considered through the APEC process. Leaders have recognised that member economy governments alone can not fund the expansion required in energy infrastructure development to meet growing demand. Energy Ministers recognise that the advice of the EBN is central in moulding a framework for ongoing development that is conducive to business/private sector investment, as the level of investment capital required can not be provided by member economy governments and multilateral financing institutions alone. Greater business/private sector participation in power projects is essential.

At the project level the EWG is encouraging business/private sector participation. As an example, at the October 2000 workshop on Green Buildings private sector businesses were invited to present case studies of their recent work as a demonstration of current practices and methodologies. These will be complemented by presentations from leading technical experts on the design, construction, maintenance and refurbishment of commercial buildings using state-of-the-art energy efficiency technologies being developed throughout APEC.

Fisheries Working Group (FWG)

The FWG's activities which meet ECOTECH objectives are concentrated in three main areas: fisheries management, trade liberalisation and aquaculture.

Capacity building has been a major feature of the FWG's work program in recent years. Major activities in 2001 include: a research program on 'Seafood Information System; Farming the Reef a project on 'Collaborative Grouper Research and Development Network'; and a technical conference on 'Management of Marine Algal Toxins in Seafood Products in the APEC Region'.

The FWG seeks to promote the growth of SMEs and development of safe efficient capital markets. The results of the following studies will help promote free trade and investment in the fisheries sector:

- *Nature and Extent of Subsidies in the Fisheries Sector in APEC Member Economies;*
- *Free Trade and Investment in the Fisheries Sector of APEC;*
- *Trade and Investment Liberalisation in Fisheries*
- *Reducing Impediments to Liberalisation in the Fisheries Sector;* and
- *Developing Industry Standards for the Live Reef Food Fish Trade.*

The sustainable use of fisheries resources and the sustainable development of aquaculture are key objectives for the FWG. A *Strategy on Destructive Fishing Practice* has been developed in consultation with the Marine Resources Conservation Working Group (MRCWG). Recognising the serious impact on both public health and trade in seafood products that red tides and harmful algal blooms have, a review of activities undertaken in this field was completed this year. Regional cooperation on these issues has been encouraged. The FWG has begun a project to encourage member economies to fully implement the *United Nations Food and Agriculture Organisation's International Plan of Action for the Conservation and Management of Sharks*. Sharks are often taken as a by-catch and are at an increased risk of depletion due to their low fecundity. In view of their importance at the top of the food chain, the FWG project will assist members to develop a regional approach to shark conservation and management.

The FWG is working on establishing an 'APEC Seafood Information System' as an integrated, commercial marketing information service for fishing, aquaculture and fish processing industries in APEC. There will be a full demonstration of the pilot system next year.

Group on Economic Infrastructure (GEI)

The GEI's Regional Integration for Sustainable Economies (RISE) project, although receiving wide expressions of support is still suffering from a lack of funds to support the second phase. All costs are currently being borne by business/private sector participants, Indonesia with some PECC coordination, and publications support. This is impairing progress. Presentations of the RISE concept to the Pacific Basin Economic Council (PBEC) committees in early May were well received and individual PBEC committees have resolved to, or are actively looking at how they can, support RISE. The RISE executive committee,

with encouragement from the PECC and PBEC has prepared a plan to reorganise RISE as a non-profit organisation with a business plan and terms of reference. This proposal would put RISE on a more sustainable basis and one that is more suited to accessing private sector contributions and charges, private funds, other bilateral, multilateral and institutional funds, and cost recovery from beneficiaries. It is to be discussed further with GEI contacts over the next few months.

The ESC, GEI members and RISE cooperation partners were invited to Jiangmen, the pilot RISE Regional Growth Centre (RGC) in western Guangdong province, China, to gain a greater insight into how RISE can assist regional economies to overcome difficulties in developing rural and secondary city economies. It also enabled delegates to become better equipped to consider proposals for the further development of RISE, or other similar initiatives. The RISE executive committee is also working with the PECC to publish more information on RISE in conjunction with other outreach activities.

RISE has assisted the government in China in discussions with Japan's International Cooperation Agency on its possible support for the capacity development priorities identified in Jiangmen. RISE support of the upcoming World Bank appraisal of programs in a further province in China is being mobilised.

Human Resources Development Working Group (HRDWG)

Following its rationalisation last year arising from the APEC-wide management review, the HRDWG reduced its sub-fora from five to three: the Education Network (EDNET), Capacity Building Network (CBN) and the Labour and Social Protection Network (LSPN). In addition, it agreed to meet once a year instead of twice, resorting to virtual means of communication to reduce costs.

In response to an earlier ESC recommendation, the HRDWG developed a three-year work program and implemented this year's work based on its Statement of Medium-term Strategic Priorities as follows:

- i) Providing quality basic education, with a focus on increasing access by all groups to basic education and increasing levels of educational attainment for the population as a whole;
- ii) Improving labour market information and analysis to support flexible and efficient labour markets which contribute to economic growth and trade and investment in the region;
- iii) Enhancing the skills of managers, entrepreneurs, and educators/trainers in key sectors; supporting the training needs of small and medium-sized enterprises (SMEs) and the management of sustainable growth and development;
- iv) Promoting and developing lifelong learning as a means both to meet rapidly changing skill needs in the economy as well as individual needs for adjustment and upgrading of education, vocational training, professional and technical skills, and management development;
- v) Improving the quality of curricula, teaching methods and instructional materials in education, training, and skills development at all levels, with a

particular focus on preparing for the transition to the 21st century (i.e. from basic education, through vocational and technical skills training, to professional and executive development for management of change);

- vi) Facilitating mobility of qualified persons to help meet skill shortages by developing means for mutual recognition of skills and qualifications, and to increase opportunities for people to gain the skills required for the economic growth and development of member economies and the region as a whole;
- vii) Enhancing the quality, productivity, efficiency, and equitable development of the labour forces and workplaces in member economies; and
- viii) Strengthening cooperation in education and training to support trade and investment liberalisation and facilitation.

Among the activities conducted are projects relating to enhancing teaching by utilising information technology, improving labour-management-government relations in the workplace, promoting alternative dispute resolutions and strengthening the capacity of SMEs. Gender considerations are an integral part of those activities.

In addition, the HRDWG has actively participated in HRD-related activities in APEC, particularly the development of the *Human Capacity Building Strategy*. The review exercise of Part II of the *Osaka Action Agenda* provided the HRDWG with an opportunity to update its *Action Program* and bring it in line with its evolving focus on capacity building and skills development, and the challenges and opportunities of the New Economy.

The focus of the 4th HRD Ministerial Meeting in Kumamoto City, Japan, in September 2001, on 'HRD for Both the Advancement of Society and Economy and the Sharing of Prosperity with People in the Context of Globalization' reflects the HRDWG's cognisance of the need for human resources to adapt quickly to soften the impacts of globalisation.

The HRDWG continued to keep track of developments in other APEC fora in order to avoid duplication, build on their work, and share expertise as well as information. This year it initiated a close working relationship with the ESC: the Lead Shepherd attended the second ESC meeting in May and in turn the ESC was represented at the annual HRDWG meeting in June. This closer relationship was pursued in recognition of the need for close collaboration and coordination of HRD-related activities in APEC due to its cross-cutting nature.

Industrial Science and Technology Working Group (ISTWG)

The ISTWG continues to hold primary responsibility for developing and implementing specific initiatives and activities in support of APEC Ministers' and Leaders' initiatives and directives by Senior Officials, notably the *Agenda for Science and Technology Industry Cooperation*.

The ISTWG made progress on several initiatives to strengthen the effectiveness of IST policy and project-related activities and to enhance ISTWG's strategic role in regional science and technology cooperation. These included:

- Developing the first ISTWG Medium-term Workplan (MTWP) focussing on:

- Connecting Research and Innovation;
- Human Capacity Building for S&T for the New Economy;
- Establishing an APEC S&T Policy Forum;
- Expanding APEC Cooperation in Key Technologies for the 21st Century;
- Prevention and Control of Infectious Diseases; and
- Science, Technology, and Innovation to meet the Environmental Challenge.

The outcome of this plan is the increased focus of ISTWG activities and projects on key priorities.

- Preparing a trial APEC Science and Technology (S&T) Policy Forum on the occasion of the 21st ISTWG Meeting in Penang, Malaysia, this year, which will bring together high-level participants from the business/private sector and research communities as well as senior S&T officials to address the theme of 'Science, Technology, and Innovation in the New Economy: Building Capacity Across APEC'. The four key issues for discussion are:
 - Developing S&T Networks in the APEC Region;
 - Strategic Technology Roadmapping-strengthening Technology Cooperation within APEC;
 - Human Capacity Building for S&T for the New Economy; and
 - Connecting Research and Innovation.

The forum will give participants from the 21 APEC member economies the opportunity to discuss, share experiences, and make recommendations to APEC on progressing cooperation in these four key areas, and more generally, raise the profile of S&T policy issues across APEC.

- Continuing to develop and refine ASTWeb (the ISTWG website) as an important tool in managing ISTWG activities. An annual evaluation of ASTWeb revealed that the members found the site useful for ISTWG project management as well as in facilitating preparations for ISTWG meetings and other ISTWG related events.

To broaden participation in ISTWG activities the ISTWG:

- Continued to encourage the participation of experts from non-member economies in individual events or activities, such as the participation of the Association of Asia Pacific Universities, and the Organisation for Economic Cooperation and Development (OECD) Directorate for Science Technology and Industry in the APEC S&T Policy Forum in October 2001;
- Initiated a dialogue with the World Health Organisation aimed at setting the context for potential APEC regional contributions within overall global efforts against current and emerging infectious diseases; and
- Continued to use ASTWeb as a communication tool to facilitate the operations of the ISTWG, and the participation of all APEC official observers and members of the research community and business/private sector in S&T discussions.

Strengthening human capacity building is an important priority for the ISTWG and is recognised as a key issue for the future in both the ISTWG MTWP and the S&T Policy Forum. Accordingly, the ISTWG has been participating in the work of the APEC Human Capacity Building Coordinating Group. It has also approved the establishment of an ISTWG Gender Science and Technology Advisory Board (GSTAB) to: monitor the implementation of the *APEC Framework for the Integration of Women*; serve as a gender focal point; and develop recommendations towards gender-related issues. This work will result in support to a key building block for S&T in the APEC region - human resources.

As a follow-up to the recommendations of the *Report on the APEC Cleaner Production Strategy (2000)*, the ISTWG approved a new project: 'Cleaner Production-Design for Environment', which aims to facilitate the promotion of cleaner production in APEC member economies.

The ISTWG was tasked with preparing a report to Leaders (in 2001) on an APEC strategy to combat HIV/AIDS and other infectious diseases. The ISTWG submitted two progress reports and expects to provide the final report to APEC Leaders in October 2001. The report builds on the existing APEC-ISTWG *Emerging Infectious Diseases (EID) Action Plan* and emphasises opportunities for collaboration not only among APEC member economies but also with external organisations and interests concerned with global and regional health issues.

The ISTWG also identified several projects that support implementation of the APEC Food System. Among these, one project involved the organisation by Viet Nam of an ISTWG Symposium on the 'Role and Contribution of New, Advanced Technologies for High Production Sustainable Agriculture' in April 2001, in conjunction with the 20th ISTWG Meeting.

These activities, combined with new APEC-funded and self-funded projects, will ensure that the ISTWG continues to provide solid, lasting benefits to APEC member economies, notably its industries and people.

The Marine Resources Conservation Working Group (MRCWG)

Marine resources are an important part of the APEC region's economic development. However, degradation of the marine environment, over-harvesting and contamination of fisheries resources can incur significant socio-economic costs, including to tourism. Sustainability of the marine environment, therefore, is vital to ensure continuing socio-economic and environmental benefits. The MRCWG is responsible for coordinating the implementation of the *APEC Action Plan on Sustainability of the Marine Environment*, which was approved by APEC Environment Ministers in June 1997. Its work covers a wide range of ECOTECH- related activities.

The MRCWG has undertaken several capacity building workshops and seminars aimed at transferring better management skills and information on marine resources. Major activities in 2001 include: the 'Marine Environmental Training and Education Program'; projects on 'Development of a Management Framework for APEC Economies for Use in the Control and Prevention of Introduced Marine Pests'; 'Development and Validation of Phycotoxin Methods, Standards and

Reference Materials for Seafood Product Certification and Safety'; and 'Oceans Models and Information Systems for the APEC Region'. The MRCWG is also working with the Fisheries Working Group on the 'Management of Marine Algal Toxins in Seafood Products in the APEC Region'.

In order to strengthen ongoing communication regarding issues and activities of joint concern, the MRCWG and the FWG agreed in 1999 to hold joint sessions every two years. The aim was to identify common interests and strengthen cooperation related to sustainability of the marine environment, and develop collaborative projects. The first joint session was on destructive fishing practices and their impacts, following which a strategy for a Virtual Task Force on Destructive Fishing Practices was developed. Other common concerns include 'Management and Enforcement Strategies for Marine Parks, Aquaculture and Fishery Resources'; 'Exotic Marine Species Introduction'; 'Capacity Building on Marine and Fishery Resources'; and 'Coral Reef Conservation'. Information sharing and cooperative mechanisms between the two working groups were addressed in a joint session this year.

After the endorsement of the *Strategic Approach for the Implementation of the APEC Action Plan on Sustainability of the Marine Environment* last year the MRCWG, at its 14th meeting this year, examined ways to ensure that the full scope of objectives within the *Action Plan* is addressed comprehensively. Accordingly, projects implemented this year not only focused on capacity building, but also met the objectives of sustainability of the marine environment.

Following a conference in September 1999 on 'Sustainability of the Marine Environment-What Can the Private Sector Do?' to promote public and business/private sector participation and partnership in advancing sustainable use of the marine environment, a roundtable meeting on 'Action Strategies and Work Programs: Engaging the Business/Private Sector in Sustainable Management of Marine Resources in the APEC Region' was held in April 2000. That meeting served as the basis for the engagement of the business/private sector in sustainable management of marine resources. The MRCWG will build on that work in a further roundtable meeting with the business/private sector to strengthen the dynamism of SMEs support of marine resources conservation.

Small and Medium Enterprises Working Group (SMEWG)

The SMEWG's 2000/2001 Work Plan is built around five main areas:

- The needs of APEC SMEs;
- Capacity building;
- Enabling APEC SMEs to capitalise on electronic commerce;
- Making financial and capital markets more accessible to SMEs; and
- Towards harnessing diversity for shared economic prosperity.

In responding to the *needs* of SMEs with respect to sustaining the foundations for growth and creating new opportunities, the SMEWG worked on helping them harness opportunities in the areas of electronic commerce and the knowledge-based economy (KBE). For example, its project 'Consumer Education and

Protection Initiative' (CEPI), through which member economies were encouraged to participate and organise CEPI activities.

In the area of *capacity building* of APEC SMEs, the SMEWG has been training experts and managers in the areas of technology, management and international trade. It is carrying out a project on 'Evolving Cooperation Initiatives for SME and New Business Support', which focuses on cooperative activities in the development of SME-related institutions. Following the success of the '2000 APEC SME and New Business Support Workshop', the SMEWG is now undertaking a follow-up version of the project which will focus on sharing knowledge and developing methods to support new and existing SMEs.

Responding to rapid developments in information and communication technology (ICT) and the recommendations from the 'APEC 2000 SME Electronic Commerce Workshop', the SMEWG has been working towards enabling APEC SMEs to capitalize on those outcomes, by creating an environment favourable to e-commerce. A follow-up 'E-Commerce Symposium for SMEs' is planned for later this year.

The SMEWG agreed that APEC member economies should develop capacity building programs to enhance managerial skills so as to enable SMEs to gain better access to financial and capital markets. To that end it completed the 'Workshop for APEC SMEs Financing and Business Management', a project which allowed participants to share information and expertise on the development of financial systems and on effective business management practices for SMEs.

Focusing on *harnessing diversity* for shared economic prosperity, the SMEWG agreed to work together for a more pro-SME environment with increasing transparency in rules and regulations, and provide information and business contacts to SMEs. It is undertaking the *Business Partnership Initiative*, led by the business/private sector, which will facilitate strategic alliances between companies in member economies. The SMEWG also oversees the ongoing 'APEC Business Matching and Advice Program' to better serve the needs of SMEs in business matching among firms across the APEC region.

In recognition of the SMEs' important role in the global supply chain, the SMEWG is overseeing a project on 'Strategic Alliances for Better Global Supply Chain Management'. To help SMEs establish strategic alliances and business linkages the SMEWG is also undertaking projects on 'APEC SME Profile 2000', which will provide comprehensive information on the different profiles of SMEs in APEC member economies. The SMEWG, in anticipation of China's accession to the World Trade Organisation (WTO), conducted a seminar on 'Opportunities and Challenges: APEC SMEs After China's Accession to WTO', to help SMEs prepare for the new opportunities that the accession would bring.

Progress in the Implementation of the APEC Integrated Plan of Action for SME Development (SPAN)

The SMEWG has agreed that member economies would report regularly on a voluntary basis and share their experiences in the implementation of the *Framework of SPAN*. China reported that it has achieved progress on policy environment, human resources development, technological innovation, financing, and marketing and information services. Malaysia reported that it

has formulated an *SME Development Plan 2001-2005*, which identifies policy objectives and strategic directions in each of the five priority areas, and how potential problems are to be addressed. It also aims to strengthen the physical and economic infrastructure specifically for SMEs and incorporates inputs from the business/private sector.

Telecommunications Working Group (TELWG)

The TELWG is carrying out a number of projects and other related activities that respond to ECOTECH priority themes and initiatives.

In the area of *Developing Human Capital* the TELWG is about to commence phases two and three of the 'Regulatory Structures Project'. The project aims to assist APEC economies in their discussions of regulatory issues that may facilitate the convergence of their telecommunications, broadcasting and information technology industries. The objective of the project is to facilitate the removal of technical and administrative barriers to market access for telecommunications goods and services. Outcomes from the latter two phases will include a descriptive report on possible ways forward for regulators facing a "converged" communication market, with special attention to offering information useful for developing economies, and a series of seminars facilitating information exchange between all APEC economies.

Capacity building projects in support of liberalisation work has been another focus of the TELWG. The 'Mutual Recognition Arrangement Management Assistant' project (MRAMS) provides solutions to the inter-government communication problems that can result when implementing an MRA. Committees, working groups and industry associations can use the MRAMS management tool to communicate securely and to manage publications.

Strengthening economic infrastructure has been another important aspect of the TELWG's work program. The 'Interconnection Resources' project aims to empower the business/private sector and governments with practical information and a simple methodology to make negotiations and interconnection policy faster and easier. Ultimately, all users of telecommunications benefit from greater choice and lower prices delivered through an effectively competitive market place. Information from the project will help all economies to facilitate business arrangements for interconnection and to liberalise their telecommunications regimes without lengthy, expensive disputes and regulatory proceedings, and to form a basis for a Human Resources Development Program.

The TELWG has also undertaken a number of activities that contribute to the theme of *Harnessing Technologies for the Future*. The TELWG has recently undertaken the 'Virtual Environments for Manufacturing and Training' project. The aim of this project is to develop a cost effective methodology by using the Internet to share information on manufacturing equipment and resources; shortening manufacturing lead time; using online collaboration tools such for supporting remote training and learning; and training using virtual reality technology, thus freeing equipment for production.

The TELWG is also carrying out work in support of SMEs. It has been working on a 'Multilingual International Trade' project, designed to address the issue of language translation for the purpose of conducting online business transactions. The research firm Cyber Tigers is developing language translation capabilities for business procedures. Cyber Tigers and the TELWG have been exploring possibilities for extending this research project into the real business world of the APEC region, including involving various SMEs in testing and refining the language translation software products being developed by Cyber Tigers. The idea is to work closely with SMEs to determine exactly what is needed, including translation, clarification of government rules and regulations, matching up with financial arrangements, shipping and logistics, etc. The objective is to enable two international parties to complete an end-to-end business transaction in their respective native languages.

Through these initiatives, the TELWG aims to implement the vision of APEC Leaders as expressed at their Brunei meeting in 2000: "to develop and implement a policy framework which will enable the people of urban, provincial and rural communities in every economy to have individual or community-based access to information and services offered via the Internet by 2010".

Tourism Working Group (TWG)

The TWG focused on key deliverables for the China APEC Year 2001, whilst working towards tangible outcomes for the Second APEC Tourism Ministerial Meeting in July 2002, in Manzanillo, Mexico. Its work plan was based upon the four policy goals contained in the *Seoul Declaration on an APEC Tourism Charter*. These are: 'Removal of Impediments to Tourism Business and Investment'; 'Increase Mobility of Visitors and Demand for Tourism Goods and Services'; 'Sustainable Management of Tourism Outcomes and Impacts', and 'Enhance Recognition and Understanding of Tourism as a Vehicle for Economic and Social Development'. Through this step by step strategy, underlined by *the Seoul Declaration on an APEC Tourism Charter*, the TWG expects to be able to achieve key tourism deliverables in a timeframe that will equally benefit the region and its communities.

The four policy goals are closely related to the six ECOTECH priority themes under the *Manila Declaration*, notably the need to: develop human capital; strengthen economic infrastructure; harness technologies for the future; develop small and medium-sized enterprises' capacities; and safeguard the quality of our environment.

Each of the four policy goals is being pursued by its own policy group, and the work of these groups is described below.

Policy Group for Goal No. 1 'Removal of Impediments to Tourism Business and Investment'

Under Thailand, as Chair of this Policy Group, two surveys were prepared in consultation with the World Travel and Tourism Council (WTTC). The surveys allowed the TWG to receive:

- Updated information of impediments to the growth of tourism in APEC member economies;

- Indicative offers that APEC member economies have already made to APEC;
- A listing of laws, regulations, acts or decrees which are still barriers to the growth of tourism business and investment in APEC member economies; and
- Information on incentives for investment stated in laws and regulations of APEC member economies.

Thailand has also been overseeing the development of the First Phase of a Tourism Impediments Study. In order to facilitate the development of individual and collective action plans by member economies, workshops will be held in eight to ten member economies to assist them to identify and prioritise impediments to tourism development and help with the development of measures to remove or reduce those impediments. Measures to be examined will include the encouragement of liberalisation of the services trade related to tourism under the General Agreement on Trade in Services (GATS) and the removal of trade and regulatory impediments to tourism business and investment.

Policy Group for Goal No. 2 'Increase Mobility of Visitors and Demand for Tourism Goods and Services'

Canada, as Chair of this Policy Group, has been responsible for the project 'Increase Mobility of Visitors and Demand for Tourism Goods and Services in the APEC Region'. A number of activities were endorsed with a view to delivering credible outcomes at the Second APEC Tourism Ministerial Meeting in 2002. Among those activities were presentations on tourism marketing opportunities in the Asia Pacific Region at the Second APEC Tourism Forum (Kuala Lumpur, Malaysia, April 2001); 'Application of E-Commerce in Tourism SMEs', 'Improvement of Tourism Standards', and 'Best Business Practices for Access for Tourists with Restricted Physical Abilities'. These and other issues were addressed with support from the Pacific Asia Travel Association (PATA) and the World Travel and Tourism Council (WTTC). The TWG also worked on a 'Framework for Classification of Festivals and Events'.

The application of electronic commerce by Tourism SMEs is designed to increase the mobility of visitors and demand for tourism goods and services in the region. This will lead to the reduction of barriers to trade in tourism services and investment in SMEs, empowering them to be represented in the electronic marketplace, to network with consumers and partners, facilitate the amalgamation of independently-produced tourism products and enable the delivery of seamless tourism experiences.

Policy Group for Goal No. 3 'Sustainable Management of Tourism Outcomes and Impacts'

Chaired by New Zealand and Korea in 2001, this Policy Group was able to deliver positive progress and is on track to present outcomes to the Second APEC Tourism Ministerial Meeting. The important endorsement of the PATA *Environmental Code of Conduct for Tourism* was a highlight for this Policy Group in 2001. The code is designed for adoption and implementation by a wide range of tourism-related organisations and companies. By adhering to it they will be showing their commitment to the vision of tourism growth which is fully responsible in its approach to natural environments, social needs and cultural

sensitivities. Organisations will also be positioning themselves to deal with environmental regulation, environmental accounting, environmental standards such as ISO and accreditation schemes requiring reporting on environmental and social impacts.

A project on 'Public-Private Partnerships for Sustainable Tourism', is aimed at maximising tourism opportunities and mitigating problems relating to environmental management, resource development and monitoring of systems. It will enable economies to develop a standard and analyse effects that contribute to sustainable tourism development. Training for 'Sustainable Development in the Tourism Industry' has also been identified as a priority and is being conducted through a TWG project that includes the community in programs of conservation and preservation, while achieving positive outcomes for the tourism industry in the region.

Policy Group for Goal No. 4 'Enhance recognition and understanding of Tourism as a Vehicle for Economic and Social Development'

Australia chaired activities under this Policy Group, in particular the development of three projects during 2001: 'Best Practices on Development of Tourism Satellite Accounts'; the development of a 'Tourism Information Network' and a 'Tourism Research Network'.

Through the development of Tourism Satellite Accounts (TSAs), member economies can establish a credible and internationally comparable set of standards for tracking tourism growth and measuring the contribution of tourism to their economies. This project seeks to harmonise methodologies for collecting key tourism statistics that are consistent with activities of other international tourism organisations, facilitate the exchange of information on tourism between economies; and promote comprehensive analysis of the role of tourism in member economies in promoting sustainable growth.

The Tourism Information Network (TIN) is a means to achieve information exchange and the creation of a network of APEC research institutions that will be able to assist tourism industries achieve their full potential as a significant driver in the APEC region for economic growth and development. The TIN will be an integral part of the TWG website and new data, such as research output and training opportunities, will be available to the public to download.

The Tourism Research Network's (TRN) main tasks will be to drive innovation, improve planning and management, formulate principles for better policy development, enhance capability and capacities, foster better education and training and promote regional understanding of tourism issues. The links to industry will ensure that this TWG initiative enhances strategic knowledge, improves profitability and underpins sustainability.

Second APEC Tourism Forum

Malaysia hosted the Second APEC Tourism Forum in Kuala Lumpur on 7 April 2001, with the theme 'Building Marketing Partnerships in the APEC Region'. More than 300 government officials and business/private sector tourism-oriented industry representatives actively discussed a wide range of topics aimed at increasing the potential of tourism in the Asia-Pacific region through information exchange, capacity building and active promotion.

Trade Promotion Working Group (WGTP)

The WGTP focused on three of the five activity areas identified in Part II of the OAA: conducting trade fairs, enhancing linkages, and fostering business networking and matching services. Information gathering and sharing were the key ECOTECH objectives this year.

The 4th APEC International Trade Fair, held from 18–22 October 2000 in Jakarta, Indonesia, attracted 1,102 companies of which only 28 were from non-APEC economies. A parallel Business Consultation Forum was organised to take advantage of the trade fair and the 15th Resource Indonesia Exhibition and to solicit views from the business/private sector community .

The Core Characteristics Survey (CCS) project allows Trade Promotion Organisations (TPO) to examine trends and priorities in the region. The survey, initiated last year, showed a slight change in spending by TPOs, decreased funding from outside sources, increased government funding, and increased staffing, with the largest increase being in the number of staff working overseas. The next survey is scheduled for completion by March 2002.

The WGTP's APECNet website provides the public/business/academic sectors easy access to trade-related information, including on activities and opportunities. User hit rates have increased dramatically this year, with usage levels by the academic sector and users in the United States, Chinese Taipei, and Malaysia ranking highest.

Seminars on 'Product Packaging (Tokyo, 2–5 October 2000) and Product Design' (Chinese Taipei, 28–30 May 2001) assisted members in exchanging experiences and information on up-to-date technologies and product designs. Participants learnt how design could add value to a product and sustain business growth and were made aware of trends in the global market. A further seminar on 'E-Future of APEC TPOs' (Beijing, China, 17–19 July 2001) encouraged the development of e-commerce and reform in TPOs, with a view to assisting SMEs to expand business opportunities.

Transportation Working Group (TPTWG)

In the implementation of ECOTECH activities, the TPTWG has consistently sought to take into account the *Manila Declaration's* guiding principles of equality, assistance, partnership and consensus building. In view of the nature of its mandate, the TPTWG primarily focuses its ECOTECH initiatives on four of the six relevant ECOTECH priority themes:

- Developing human capital;
- Strengthening economic infrastructure;
- Harnessing technologies for the future; and
- Safeguarding the quality of life through environmentally sound growth.

Throughout 1999 and 2000, the TPTWG's ECOTECH efforts have centred on cooperative actions that aim to share best practices among APEC member economies. Consequently, many of the TPTWG projects and programs that member economies have implemented, are implementing or plan to implement are designed to help other economies enhance their human capacity, in accord with the ECOTECH priority theme of *developing human capital*.

The TPTWG also takes into account the *Guidance for Strengthening Management of ECOTECH Activities* in planning its activities.

The TPTWG pays close attention to the joint activities identified in the OAA, as a reminder of the goals that individual APEC fora are expected to achieve. Its ECOTECH projects are generally implemented over a medium-to long-term time frame, and project outcomes are regularly evaluated with a view to clearly articulating how activities have benefited governments, the business/private sector and the community.

The TPTWG has developed its own guidelines to improve the process by which projects are endorsed internally, in conformity with prevailing Budget and Management Committee (BMC) and ESC guidelines. The business/private sector is represented in many member delegations at TPTWG meetings and at TPT17 in March 2000, the group reviewed and endorsed proposals to invite new guest organisations in the transportation field, and to renew existing guest approvals. Those recommendations were approved at SOM II in 2001 and the TPTWG has since established or renewed contact with eight international organisations.

In the formulation and implementation of its ECOTECH activities, the TPTWG is also mindful of APEC priorities related to the integration of women, the need for greater cross-sectoral participation, and environmental and sustainable development issues.

Economic Committee (EC)

The EC attaches great importance to its task of providing in-depth analysis of the changing economic conditions in the APEC region. The advent of the new millennium, characterised by the unprecedented rapid expansion of information technology and the need to utilise knowledge in every aspect of society, has created a new role for the EC.

In conformity with this new role, the EC is focusing on four core projects that respond to the challenges of a globalised economy.

The *APEC Economic Outlook*, the EC's key annual analytical exercise, reviews recent developments in, and short-term prospects for, APEC economies, and addresses topical structural issues bearing on APEC policy priorities. The 2001 report, which is being coordinated by Hong Kong, China, will tackle the topical structural issue selected for this year, which is the study of the relationship between financial development and economic growth in the region.

The recent Asian financial crisis and the subsequent recession in the region have highlighted the damaging consequences of a weak financial system, even when other sectors of the economy are still relatively strong. A large amount of

research effort has since been directed to diagnosing the crisis, prescribing appropriate policies for recovery, and reforming the financial system so as to avert a recurrence of the crisis. Yet there is another dimension of the relationship between finance and the economy that is worth further study, i.e., the interplay between financial development and long-term economic growth.

The prime objective of the study is to provide an in-depth and forward looking analysis of the long-term effects of financial development on economic growth. The literature review will cover the studies and cross-economy comparisons done by international financial institutions on the financial policies and systems in the region. To add value, the study will establish the finance-growth nexus, with special reference to the empirical links with savings behaviour, allocation of capital and efficiency in the channeling of savings into investment.

The *New Economy* project is focused on bringing the benefits of IT to all members in a balanced way. Its objective is to first come up with the most appropriate definition of the term 'New Economy'. It would then try to quantify its potential benefits, especially from a macroeconomic perspective, and present practical examples from the business/private sector and civil society of the challenges facing the business/private sector, individuals and governments, using various New Economy policies and technologies. And finally it will draw conclusions and formulate policy recommendations from the findings of the research work. The United States, Canada, Australia, Japan and Chinese Taipei are jointly leading this project, each one pursuing a different sub-topic.

The project on *The Benefits of Trade Liberalisation and Facilitation* is being carried out in response to instructions from APEC Leaders and Ministers and strong demand from the business/private sector for APEC to place more emphasis on work related to trade facilitation in order to promote a free and open trade environment.

One of the most important developments in the APEC region during the past decade has been the significant reduction of tariffs on trade in goods, which has contributed to the expansion of trade flows among member economies. At the same time, it has also been well demonstrated that trade and investment facilitation can generate benefits similar to, or even greater than those produced by tariff reduction. It is noticeable that as the marginal cost for further tariff reduction increases, the benefits of addressing facilitation measures become more pronounced. In this respect, complementary action on trade liberalisation via investment liberalisation and other facilitation measures enhances the effectiveness of TILF.

With this background, the research project aims to provide analytical insights that will help APEC meet impending challenges as it moves towards the Bogor goals. One of the challenges is to further strengthen trade and investment facilitation measures as the trade liberalisation process continues. In this light, the project is focused on the following:

- Assessing APEC's progress in the liberalisation and facilitation of trade and investment;
- Examining areas for improvement related to APEC's trade and investment facilitation;

- Analysing the cost and benefits of trade and investment facilitation and suggesting ways to contribute to the achievement of the OAA goals; and
- Proposing ways to improve market access and trade-related capacity building.

Korea is leading this project in collaboration with other interested member economies.

Last year the EC published a report entitled *Towards Knowledge-based Economies in APEC* which assessed the knowledge infrastructure in the region, examined the policy environment conducive to expanding the knowledge base, and identified possible areas of APEC cooperation for promoting knowledge-based economies (KBEs). The report gave three specific recommendations on how to promote KBEs in the APEC region, namely:

- Establishment of a Knowledge Clearing House;
- Generation of catalytic policies to trigger the transition to KBEs; and
- Inclusion of KBE status indicators in the *APEC Economic Outlook* report.

This year, Korea, Australia and Canada, who led the research work for the KBE report, will prepare a detailed plan for the implementation of the three KBE recommendations.

The results of the four major research studies of the EC will be valuable in terms of providing policy makers in APEC with policy options and directions on the key macroeconomic issues directly affecting the region. The projects also offer recommendations on possible areas for strengthening economic cooperation among APEC member economies moving towards long-term and sustainable growth in the region and contribute to human resources development and capacity building.

Committee on Trade and Investment (CTI)

The CTI, in addition to focusing its work on trade and investment liberalisation and facilitation (TILF), also undertakes a wide range of activities and projects each year that respond to at least one of the six ECOTECH priority themes. These activities underscore the complementary role which ECOTECH plays in the TILF process to meet the common objective of producing results that are responsive to the instructions of Leaders and Ministers, as well as credible and relevant to the public and business/private sectors.

Each year, the CTI oversees and implements some 50 projects, involving among others: training cooperation programs, workshops, seminars, symposiums, surveys, and studies. The main thrust of many of these activities is on 'Developing Human Capital'. These activities include multi-year technical training programs to assist member economies in the implementation of the Collective Action Plans (CAPs) in the area of customs procedures; technical cooperation projects to promote participation in mutual recognition arrangements under the standards and conformance area; and technical cooperation programs to build the capacity of economies in immigration facilitation techniques in the area of mobility of business people.

The CTI also undertakes other activities, which address the ECOTECH priorities of strengthening economic infrastructure; and strengthening the dynamism of the small and medium-sized enterprises. Through, one of its sub-fora, the Subcommittee on Standards and Conformance (SCSC), a series of workshops were conducted jointly with the HRDWG with a view to increasing SME competitiveness in selected industries through the integration of quality, environment and change management systems.

As a further illustration of the complementary roles between TILF and ECOTECH, the CTI also carried out capacity building work programs/projects in 2001 to (i) facilitate the ability of developing APEC economies to implement WTO agreements under the *APEC Strategic Plan on Capacity Building related to the Implementation of WTO Agreements*; and (ii) encourage continuing regulatory and institutional reform under the *Cooperation Framework on Strengthening Economic Legal Infrastructure*. In particular, under the *Strategic Plan for WTO-related Capacity Building*, a total of 12 projects were drawn up to assist developing member economies in addressing concerns over certain aspects of the implementation of WTO Agreements.

ECOTECH remains an integral part of APEC's Early Voluntary Sectoral Liberalisation (EVSL) process managed by the CTI. Several ECOTECH activities were developed and implemented to support each of the sectoral initiatives. A number of these projects have been completed, with much of the remaining work captured in the mainstream activities of the CTI and its sub-fora. A summary of such activities and the progress achieved is presented at **Annex 5**.

Finance Ministers' Process

Over the past seven years, the APEC Finance Ministers' process has proven to be a valuable forum for assessing the regional economic and financial situation and promoting sustainable economic growth in the region. Facing the formidable challenges posed by the 1997-98 Asian financial crisis, Finance Ministers placed more emphasis on economic restructuring, financial stability, capacity building and broader regional cooperation in response to the instructions by APEC Leaders. Furthermore, in order for the Finance Ministers' process to better serve the needs of the Leaders' Meeting, an alignment of the APEC Finance Ministers' process with the APEC Leaders' Meeting was successfully introduced last year. This alignment makes it possible for the goals and objectives of the Finance Ministers' process to be further integrated with the overall strategic framework for APEC.

The policy theme for the 8th APEC Finance Ministers' Meeting (Suzhou, China, 8-9 September 2001) is 'Growth with Restructuring, Stability and Equity', along with the following three main agenda items:

- Strengthening dialogue on macroeconomic policies to promote economic and financial stability and sustainable economic growth;
- Deepening structural adjustment and reform, establishing a sound financial system to build a solid foundation for sustainable economic growth; and
- Promoting economic growth on a fair and equitable basis in order to minimise the adverse impact and maximise broad-based benefits in the

process of globalisation and to ensure that the majority of people benefit from globalisation.

Finance Ministers took stock of progress over the last seven years and reviewed its strategic goals and *modus operandi* to better capitalise on its comparative advantages and effectively contribute to the overall vision of APEC. As the Chair of this year's APEC Finance Ministers' Meeting, China proposed an APEC Finance and Development Program, which aims to enhance capacity building and economic development in the region. More information on the 8th APEC Finance Ministers' Meeting can be obtained from <http://www.apec2001fm.gov.cn>.

There are now 13 on-going initiatives under the Finance Ministers' process, which cover three of the six ECOTECH priority themes:

- Developing Human Capital
 - Financial Regulator Training
 - APEC Future Economic Leaders' Think Tank
- Developing Stable, Safe and Efficient Capital Markets
 - Voluntary Action Plan for Promoting Freer and More Stable Capital Flows
 - Financial Regulator Training
 - Electronic Financial Transactions Systems
 - Bank Failure Management
 - Fighting Financial Crime
- Strengthening Economic Infrastructure
 - Managing Regulatory in Life Insurance and Pensions
 - Strengthening Corporate Governance
 - Insolvency Law
 - Company Accounting and Financial Reporting Task Force
 - Supporting the Development of Credit Rating Agencies (CRAs) and Strengthening Disclosure Standards
 - Privatisation Forum
 - Social Safety Nets

Over the last four years, ECOTECH work has become an increasingly integral part of the work of the APEC Finance Ministers' Process. It is very likely that this work will continue to expand over the coming years.

Recommendations:

- ***APEC fora should refer to the updated Part II of the OAA, including the Annex, and the 1996 Manila Declaration when planning ECOTECH activities, and should clearly identify which objective/s and goal/s are being addressed when seeking funding for projects.***
- ***APEC fora should place more attention to reporting on the outcomes of projects (as opposed to outputs), notably on their impacts on member***

economies and the community, so that the benefits of ECOTECH can be better communicated.

- ***APEC fora should incorporate fully into their work program the ECOTECH elements of key mandates agreed by Ministers and Leaders including: sustainable development, gender integration and the APEC Food System.***
- ***In carrying out its evaluation work, the APEC Secretariat should provide guidance and advice to APEC fora on the methodology for assessing project results, as well as on how to define outcomes while planning and designing projects.***

3 IMPLEMENTATION OF KEY ECOTECH INITIATIVES.

Over the years, APEC Ministers have sought an annual report on the implementation of key ECOTECH initiatives. The ESC's report on what has been accomplished since 2000 is presented below.

3.1 Kuala Lumpur Action Program on Skills Development

Since the HRD priority theme was introduced in 1996, skills development and human capacity building (HCB) are new and related issues that were introduced in 1998 and 2000 respectively. In the case of the latter, a Human Capacity Building Coordinating Group, led by the ESC, was established this year to develop an HCB strategy that would 'define the objectives, priorities and principals for APEC to respond to the challenges of the new (economy) environment'.

The HRDWC's Statement of Medium-term Strategic Priorities includes a focus area to improve the quality of curricula, teaching methods and instructional materials in education, training, and skills development at all levels, with a particular focus on preparing for the transition to the 21st century (i.e., from basic education, through vocational and technical skills training, to professional and executive development for management of change).

APEC funds several projects under this priority. One focuses on capacity building of executives in international business management to promote understanding and knowledge of international business management for executives from APEC economies, especially the developing economies and SMEs. Another addresses the need to enhance understanding of commercial dispute resolution mechanisms by holding a workshop, a series of seminars and a symposium as well as by producing curricula and teaching material for use in such seminars in various APEC economies. The skills of trade and investment insurance practitioners are also targeted by strengthening the institutional capacity of export credit agencies that provide trade and investment insurance.

There was also a move to ascertain the nature and extent of skill shortages and training needs faced by multinational enterprises, the methods by which these companies cope with the problems created by these skill shortages, and the nature of, and scope for, public sector-business/private sector collaboration on the development of education and training programs. Another APEC project with extensive coverage is one providing a systematic descriptive analysis of key human resources management policies and practices at a macro-level in APEC economies to provide the basis for a series of micro-level case studies on human resource management policies and practices that focus on key areas of organisational/industry performance.

In March 2001 a project on International Quality Assurance System in collaboration with the CTI was conducted, building the capacity of managers and trainers to integrate standards-based quality and environmental management systems through trainers' training and executive workshops. Heeding the Leaders' call for attention to the New Economy, the HRDWC also embarked on an educator' exchange program to enhance the utilisation of Information Technology in education. The Cyber Education Program involves a

linking of centres on IT and the dispatch of youth Internet volunteers to impart IT skills, particularly to developing economies.

A substantial part of the work in this area is self-funded. For example, the APEC Vocational Training Program, which conducts training for technical and skilled workers in areas such as mechanical production, factory automation, automotive installation, etc. The APEC Youth Skills Camp which was held last year in Ulsan, Korea, also stressed skills development and enhancement with a focus on youth as the future workforce. The HRD for Venture Business Project, which focuses on entrepreneurship, allowed members to exchange information regarding entrepreneur development programs and promote linkages among institutions in APEC.

3.2 Human Capacity Building

At their meeting in Brunei in November 2000, APEC Leaders announced a bold vision to prepare member economies and their people to “use the technology revolution as a passport to the fruits of globalisation”. To this end the Leaders agreed to develop and implement a policy framework which would enable the people in the urban, provincial and rural communities in all APEC economies to have ‘individual or community-based access to information and services offered via the Internet by 2010. As a first step they aimed to triple the number of people within the region with individual and community-based access by 2005.

APEC Leaders also identified development of human capacity as a fundamental part of that vision and committed APEC to working with the “widest spectrum of the business community and those in education and training” to develop the policies that would make it happen.

High Level Meeting on Human Capacity Building

In response to, and with the support of, all APEC Leaders, His Majesty Sultan Haji Hassanal Bolkiah, the Sultan and Yang di Pertuan of Brunei Darussalam and His Excellency President Jiang Zemin of the People’s Republic of China, convened the APEC High Level Meeting on Human Capacity Building from 15-16 May 2001 in Beijing, China. Over 500 participants from 21 member economies, including ministers, officials, business leaders, and experts from the education and training sector, met to address the theme *New Economy, New Strategy: Cooperation and Innovations to Building Human Capacity for Common Prosperity*. It was the first time in APEC’s history that with the engagement of the top leaders of two APEC economies, ministers and senior officials had face to face dialogue with business executives and experts from the education and training sector on human capacity building.

The objectives of the meeting were:

- To assess the challenges ahead in building and exploiting the New Economy, the importance of the human factor, and the preparedness of our economies;
- To explore the innovative ways in which businesses and education and training institutions are now working on these issues and consider strategic options for the future; and

- To discuss better policy approaches so that APEC members can work in more innovative and effective partnerships with the business/private sector, educators and trainers.

As a result of the High Level Meeting, the *Beijing Initiative on APEC Human Capacity Building* was launched (<http://www.apecsec.org.sg/ecotech/hcb.html>). The *Beijing Initiative* aims to jumpstart APEC's work in addressing the challenges faced in developing human capital in the New Economy and improve on the approach to HCB which, while extensive so far, needs a mechanism by which the region's pool of resources can be effectively utilised. It lays the foundation for enhanced HCB work in APEC based on cooperation involving stakeholders including the government, business/private, training and education sectors. It provides a strategic road map to ensure more cohesive, comprehensive and mutually complementary HCB efforts in APEC across all sectors. All APEC fora have been encouraged to incorporate those ideas into their respective work programs and adopt a mutually beneficial model of cooperation between the stakeholders. The HRDWG, in particular, will be pursuing them through its ongoing work program and already has embarked on collaborative projects such as the Knowledge Sharing Network.

3.3 APEC Agenda for Science and Technology Industry Cooperation into the 21st Century

The *APEC Agenda for Science and Technology Industry Cooperation into the 21st Century* (ASTIC) was originally proposed by China during the APEC Leaders' meeting in 1997 in Vancouver; Canada, developed in detail by the Industrial Science and Technology Working Group (IST WG) in 1998; endorsed at the 3rd APEC S&T Ministers' Meeting in Mexico in October 1998; and further approved by Leaders at their meeting in November 1998, in Kuala Lumpur, Malaysia.

According to the ASTIC, 'All APEC fora, particularly the Industrial Science and Technology Working Group, should develop and take responsibility for designing and implementing within a reasonable timeframe specific initiatives and activities that support the vision and principles under this Agenda.'

It further stated that 'The SOM Sub-Committee on Economic and Technical Cooperation will oversee the implementation and follow-up work on this Agenda. Annual progress in the implementation of the Agenda shall be reported to Ministers with the initial report to be presented at the 11th Ministerial Meeting in 1999'.

In the spirit of the above, the ISTWG prepared the First Progress Report and submitted it to the third SOM of 1999, and it was later endorsed. The first report was an encouraging document in terms of its rich content and exhaustive analysis. It showed that within the APEC fora there existed a large number of substantial activities addressing ASTIC's objectives.

The Second Progress Report, submitted to the third SOM of 2000, observed again that relevant APEC fora had been active in implementing the ASTIC, and that substantial achievements had been made over the first two years. The second report was less exhaustive than the first report in its analysis but more

exemplary in its approach. It also tried to link the major relevant APEC events or documents that were in line with the directions of the ASTIC.

This, the Third Progress Report, follows the format established by the Second Progress Report. Definitions of terms used in this report are in **Annex 6**.

(i) Further Progress and Findings since the Second Report

Overall, relevant APEC fora, especially the ISTWG and ATCWG, have been active in the further implementation of the ASTIC. The primary source of activity is the ISTWG, whose mandate closely relates to the ASTIC. Among its current projects, over 95% were identified as addressing particular elements of the ASTIC.

The ASTIC sets out the five mechanisms through which the objective of building a prosperous and sustainable APEC community is to be achieved. The following are some examples of projects under each of the mechanisms:

Mechanism 1: Improved availability of and access to information

'Technomart IV', and ISTWG project, is a high technology and product exhibition that will take place in September 2001, in Suzhou, China. Under the main theme of 'Innovation and Industrial Science and Technology Cooperation in the 21st Century', this event will serve as a bridge to link together companies, small and medium-sized enterprises (SMEs), R&D institutes, universities, science and technology industrial parks (STIPs), business incubators and venture capital firms. It will be a forum to display and exchange S&T innovation and experience in the new century, and will provide an excellent opportunity for follow-up cooperation in a variety of high-tech fields.

The 'Electronic Port Manifests Project' of the TPTWG will identify options for creating an electronic document for port manifests that could be combined with harmonised electronic customs declarations. The project will provide an opportunity for APEC to utilise the true benefit of electronic commerce through the streamlining and re-engineering of processes in the area of cargo manifests for ports and customs authorities which have a large number of common data elements.

Mechanism 2: Improved Human Resources Development

The ISTWG project 'APEC ISTWG Women in Engineering and Sciences Program' is unique as there is no other similar training program in the world. It is specifically for women scientists and engineers from developing countries and offers research opportunities and access to international-calibre research facilities at the National Research Council of Canada. The project aims to encourage women in participating economies (Thailand, the Philippines, and Viet Nam) to pursue non-traditional and successful careers in engineering and science by providing a positive and supportive mentoring environment. In general, the program promotes the development of women leaders in the S&T domain who will themselves become role models for other young women in their countries.

An HRDWG symposium on 'IT Enablement for Trainers in the New Millennium' was held in Brunei Darussalam with over 700 participants, addressing the issue

of equipping the modern workforce with IT skills. Information was exchanged on the latest teaching methods, knowledge, and strategy in IT for the public and business/private sectors by educators and trainers in the region. Also conducted by the HRDWG was a 'Roundtable on Cyber Education' where participants benefited from information sharing on the growth and application of cyber education especially in the New Economy.

Mechanism 3: Improved Business Climate

The TELWG project 'Data Compilation Project/Guide to Regulatory Environments in APEC Member Economies' provided, and will continue to provide, updated guides that enhance business facilitation across the APEC region. The guides provide details on the policy, legislative, and regulatory environment for telecommunications in all APEC member economies. A new edition is currently being prepared that will reflect the new environment created by the WTO Agreement on Basic Telecommunications.

'Workshop on Business Incubation and Information Flow Improvement for Business Incubators' was an ISTWG project aimed at closer partnerships and better networking among business incubators. The project delivered training to the working staff of business incubators and related employees in government and business/private sectors in APEC economies so as to encourage the growth of SMEs.

Mechanism 4: Enhanced Policy Dialogue and Review

The ISTWG project 'Strengthening the Capability of S&T Evaluation in the APEC Region' provides valuable opportunities for dialogue and exchange of ideas so as to enhance regional cooperation. The project helps in transferring feasible evaluation theories and methods from developed member economies to developing ones. This initiative also includes an exchange of professional expertise and provision of evaluation training to officials of developing countries. Specific skill-enhancing and capacity development activities have been identified.

The ISTWG 'APEC S&T Policy Forum' for the first time will bring together business people, researchers and government officials from the 21 APEC member economies to discuss and make recommendations to APEC on enhancing cooperation in science and technology for the New Economy. Discussions will focus on: developing S&T networks in the APEC region; strengthening technology cooperation within APEC through strategic technology road mapping; human capacity building in S&T; and connecting research and innovation.

Mechanism 5: Facilitation of Networks and Partnerships

The TPTWG 'APEC Paperless Trading Demonstration Project - Electronic Transmission of the SANCRT Message' will develop solutions to assist business and government institutions to replace existing key paper documents, which are required for international cross-border trade, with an electronic form. Part of the project will be devoted to demonstrating the applicability of the electronic forms to the actual trading process using a trial electronic health certification. All economies have been invited to participate in the research stage of the project to assist in identifying barriers, developing solutions and assisting with the trial.

The ISTWG 'Mutual Utilisation of Research Facilities' project intends to make a compendium of the important research facilities in the region that are subject to mutual utilisation on a voluntary basis. The project will clarify the conditions of access on a case by case basis, and start a mutual utilisation of research facilities to enable more efficient use of R&D capabilities.

(ii) Biotechnology

The ATCWG has been involved in the implementation of the ASTIC mainly through its activities on agricultural biotechnology, plant and animal genetic resources, and plant and animal quarantine and pest management. As the only forum dealing with agricultural biotechnology, the ATCWG has steadily implemented various activities concerning agricultural biotechnology. In 2001, the ATCWG developed two documents on agricultural biotechnology: '*Communicating about Agricultural Biotechnology in APEC Economies: A Best practices Guide*' and the '*Implementation Plan: Strategy and Timetables of Activities*'. The first document aims to assist member economies establish individual communication strategies. Whereas the second addresses the implementation of the work program stated in the ATCWG's report to the Trade Ministers Meeting in 2000.

The comprehensive *Implementation Plan* covers the ATCWG's medium-term activities in the areas of science-based assessment of biotechnology, technical cooperation, transparency and information exchange, and capacity building. These activities will be initiated by the Lead economies. Holding the APEC-JIRCAS Joint Symposium and Workshop on Agricultural Biotechnology in Bangkok, Thailand, in September 2001, was one such activity. That workshop comprised a one-day symposium which provided an overview of current issues on agricultural biotechnology; a 4-day workshop which will discuss specific issues on biotechnology; and a 3-day training workshop on safety assessment of biotechnology products.

The ATCWG plans to hold the fourth workshop on conservation and utilisation of plant and animal genetic resources in 2001. The objectives of the workshop include identifying possible information needs and cost-effective collection methods; discussing appropriate monitoring, evaluation and reporting mechanisms; and information sharing about developments on genetic resources among APEC economies. The workshop also relates to the theme of development of human capital since one of the objectives is capacity building in conventional and innovative technologies concerning conservation and utilisation of genetic resources.

Following from the above, the ESC concludes that on the whole APEC fora are satisfactorily implementing the *Agenda for Science and Technology Industry Cooperation into the 21st Century* in a comprehensive way. The breadth and depth of the projects demonstrate the commitment of the 21 member economies to implementing the initiative.

Recommendations

- ***The APEC Secretariat, ESC and all relevant APEC fora should make joint efforts to further strengthen ECOTECH project coordination.***
- ***The ECOTECH Clearing House should be used for submission and discussion of future activities and projects addressing implementation of ASTIC and other key initiatives.***
- ***Relevant APEC fora, especially the working groups, should strengthen science and technology policy dialogue to enhance their work at the strategic level.***

3.4 Strengthening Markets

In the 1999 meeting in Auckland, New Zealand, APEC Ministers agreed that 'strengthening markets' provided an integrative framework for APEC's work in key areas such as trade and investment, competition and regulatory reform, and capacity building, with a view to generating sustained growth in APEC economies. APEC Leaders endorsed the 'APEC Principles to Enhance Competition and Regulatory Reform' and approved a 'road map' to set out future work by APEC to strengthen its regional markets, stressing that open and competitive markets were the key drivers of economic efficiency and consumer welfare.

Based on the 'road map', APEC has embarked on a wide range of activities focusing on strengthening markets. Progress on the following activities were reported to APEC Ministers last year (2000/AMM/005):

- Individual and collective implementation of the APEC principles to enhance competition and regulatory reform;
- Economic and corporate governance;
- Economic and technical cooperation;
- Strengthening market infrastructure;
- APEC's analytical work;
- Trade facilitation;
- Improving the IAP mechanism; and
- Implementation strategies in specific areas of APEC's work.

This year, activities centred around the theme 'Strengthening the Function of Markets' and included:

- The 'Cooperative Initiative on Regulatory Reform', jointly with the OECD;
- The 'Cooperation Framework for Strengthening Economic Legal Infrastructure';
- The 'Cooperation Program in the area of SME and New Business Support';
- 'Improving Economic and Corporate Governance'; and
- 'Facilitating an Environment Conducive to Entrepreneurship and Start-up Companies'.

Although the projects aim to fulfil TILF objectives, they also meet ECOTECH objectives and priority themes, such as developing human capital; developing stable, safe and efficient capital markets; and developing and strengthening the dynamism of small and medium-sized enterprises.

Among the 'Strengthening Market Infrastructure' activities are two projects led by Japan: 'Strengthening Economic Legal Infrastructure' and 'SME and New Business Support'. A new five-step approach 'Evolving Cooperation Scheme' aims to achieve more concrete results through a multi-stage process rather than the conventional one-off activity. The unique five-step strategy allows members to:

- Share basic information on regional needs, expertise and experience;
- Set priorities for cooperative activities (under the 'Strengthening Economic Legal Infrastructure', establish a 'Menu of Options' for each economy);
- Establish a Program to govern cooperative activities;
- Implement projects along the lines of the Program; and
- Review the results and provide feedback in order to revise the Program as appropriate in setting out further activities.

Progress of the respective components is described below:

(a) *Strengthening Economic Legal Infrastructure*

The primary objective of this work is to encourage continuing regulatory and institutional reform, in particular to build the capacity and skill of the legal profession in enforcing and applying corporate law and competition policy.

In response to Ministers' instruction in Brunei in 2000, a Coordinating Group, led by Australia, Japan, Peru and comprising other interested economies, has been formed to steer the implementation of the 'Cooperation Framework on Strengthening Economic Legal Infrastructure'. The Coordinating Group discussed next steps for cooperative projects in three areas: Capacity and Institutional Building; Corporate Law; and Competition Policy, and developed detailed work programs to ensure each project will meet the specific needs of participating economies.

Ministers endorsed the *Menu of Options on Capacity and Institutional Building, Corporate Law and Competition Policy*, and called for its implementation.

(b) *SMEs/New Business Support*

This initiative aims to promote the start up of new businesses and to foster SMEs, recognising that they are vital to sustaining sound economic activities. As a first step in the 'Evolving Cooperation Initiative for SME and New Business Support', Japan conducted the '2000 APEC SME and New Business Workshop', which was endorsed by SME Ministers in Brunei Darussalam last year. Based on discussion at the workshop and the results of the survey conducted prior to and after the workshop, Japan dispatched experts to Indonesia, Brunei, Peru and the Philippines in early 2001 as one of the cooperation programs. In order to review the outcomes of the cooperation program, and to further support new businesses, the '2001 APEC SME and New Business Support Workshop' was held from 11-13 July 2001 in Tokyo, Japan, attracting 45 participants from 19

economies. As a follow-up activity, Japan will conduct a survey on funding requirements and respond to the specific needs of economies. SME experts dispatched during the year will provide advice at the local level.

3.5 Sustainable Development

In 1996 Ministers agreed that Senior Officials should undertake an annual review of and dialogue on sustainable development work in APEC. The APEC Secretariat was tasked to compile an annual overview of all sustainable development activities across APEC fora.

In November 1998, in Kuala Lumpur, Malaysia, APEC Leaders reiterated their commitment to advance sustainable development across the entire spectrum of APEC's work. Ministers and Leaders outlined the priorities on sustainable development in the following four areas:

- Cleaner Production;
- Protection of the Marine Environment;
- Sustainable Cities; and
- The APEC Framework for Capacity Building Initiatives on Emergency Preparedness.

In this year's assessment, 34 projects/activities, including APEC-funded and self-funded projects, relate to the sustainable development theme. Some of those do not have this theme identified as the primary objective in the APEC Project Database and as the nature of each activity is not always clear-cut it is difficult to categorise them into one of the four sustainable development areas. This year the EWG is the most active group with 13 projects that relate to sustainable development, followed by the FWG and the MRCWG. The ISTWG is responsible for work on the infectious disease element of the Emergency Preparedness Initiative.

Some projects have shown strong participation from members of the business/private sector either as speakers or as participants. They also appear to be involved in the preparation of proposals. In addition, the involvement of NGOs has been encouraging, albeit from various academic or regional international institutions. The participation of the business/private sector and the contribution of NGOs have increased the awareness of sustainable development.

The full report by the APEC Secretariat is given in **Annex 7**.

4 IMPLEMENTATION OF THE GUIDANCE ON STRENGTHENING MANAGEMENT OF ECOTECH ACTIVITIES

Senior Officials approved the *Guidance on Strengthening Management of APEC ECOTECH Activities* in June 1998, in Kuching, Malaysia (**Annex 8**). Since then, the ESC has been monitoring its implementation by APEC fora and the Secretariat.

The ESC continues to be satisfied that APEC fora are observing the ECOTECH guidelines, particularly in avoiding duplication and in involving the business/private sector in projects. The ATCWG and the ISTWG, for example, have noted a possible overlap in responsibilities for tasks relating to biotechnology and are in the process of working out a suitable demarcation. All ECOTECH projects submitted for funding in July 2001 identified benefits that flowed on to the business/private sector and many included business/private sector participation. There is also evidence that business/private sector funding and input is being sought in the project formulation stage.

However, the ESC remains concerned that not sufficient attention is being paid, when projects are being formulated, to the outcomes of projects: how they actually relate to specific ECOTECH objectives and initiatives, and how the results can be used for outreach purposes.

The ESC is also satisfied that the APEC Secretariat has been effectively carrying out its role in the management of ECOTECH activities, as identified in the ECOTECH guidelines. The Secretariat continues to provide valuable comments on project proposals seeking APEC funding including their compliance with the *Guidebook on Financial Procedures* and the *ECOTECH Weightings Matrix*, and the *Format for Projects*. Comments by the APEC Secretariat on the evaluation reports of completed projects have been constructive and useful.

4.1 ECOTECH Weightings Matrix

In the interest of ensuring outcome-oriented and value-added projects, as directed by Ministers and Leaders, the ESC developed an *ECOTECH Weightings Matrix* in 1999 to assist APEC fora and the BMC determine a project's importance against APEC's ECOTECH objectives. It sought to provide fora with a better appreciation of the overall ECOTECH priorities of APEC, including desired project outcomes, as opposed to the possibly narrower interests of the particular forum. The *ECOTECH Weightings Matrix* was further refined last year to include some additional criteria.

In assessing its use this year, the ESC noted that there was a marked improvement in the provision of supporting information for each criterion, compared to last year when fora merely had to provide a score without necessarily supporting it in the project proposal. It was notable that for the first time fora were required to identify clearly which OAA-related activity the project met and most were able to do so.

On the whole, the amendments introduced by the ESC last year are having the desired effect in making project proponents think about how the projects meet specific ECOTECH objectives and initiatives. The projects from the Finance Working Group in particular were exemplary in being correctly scored and with

very good supporting information. However, the ESC notes that project proponents from other working groups are still having difficulty in filling out the *ECOTECH Weightings Matrix* correctly the first time. A large proportion of the completed matrices were incorrectly scored and had to be returned to proponents for correction before consideration by the BMC.

Recommendations

- ***The ESC reminds APEC fora to clearly articulate the expected outcomes of projects when completing the ECOTECH Weightings Matrix, including how governments, the business/private sector or the community will benefit from individual projects.***
- ***Project proponents and/or fora should be encouraged to seek the assistance of the APEC Secretariat when completing the ECOTECH Weightings Matrix, before submitting project proposals to the BMC.***

5 UPDATE OF PART II OF THE OSAKA ACTION AGENDA

When the *Osaka Action Agenda* (OAA) was launched in 1995, APEC Ministers stressed the need to further promote economic and technical cooperation in order to achieve sustainable growth and equitable development in the Asia Pacific region. They reaffirmed that ECOTECH would be based on the three essential elements of developing common policy concepts, implementing joint activities and engaging in policy dialogue. Action programs in each of the 13 sectoral activities were laid down in Part II of the OAA (ECOTECH which directly supports trade and investment liberalisation and facilitation is mainly dealt with in Part I of the OAA and is overseen by the CTI).

Last year, with the endorsement of SOM, the ESC carried out a review of Part II of the OAA to determine how much had been accomplished since 1995 and whether it needed revision. The ESC found that of the fora covered in the OAA, the Trade and Investment Database Working Group (TIDWG) had since completed its task and was dissolved in 1999. Moreover, since 1995 Ministers and Leaders had launched more than a dozen new ECOTECH initiatives and the tasks associated with them were not necessarily reflected in the OAA.

Notwithstanding that, the ESC noted that Part II of the OAA remained a fundamental reference document "which manifestly articulates APEC's sectoral ECOTECH goals and provides a clear road map for activities that shape policy dialogues and projects by APEC fora". With respect to the Common Policy Concepts (CPC) laid down in the OAA, the ESC noted that they "remained as relevant today as they were when drafted in 1995". It recommended, therefore, that APEC fora should continue to draw on them when framing their work programs and activities.

The ESC also observed that following the development of the six ECOTECH themes under the *Manila Declaration*, reference to Part II of the OAA had somehow been overshadowed. APEC fora in many cases became so intent on classifying their projects under one or more of the six themes that they were often not able to clearly identify in their project proposals which activity in the OAA Part II or Ministers'/Leaders' directive the project was meant to address.

In summary, the ESC concluded that it was timely for the Joint Activities/Dialogue sections of Part II of the OAA to be updated so that they better reflect ongoing priorities for individual working groups. Moreover, the ESC considered that the process of updating the OAA would, in itself, remind working groups of the importance of the OAA and encourage them to refer to it when planning their projects and activities.

Following the ESC's recommendations last year, Ministers instructed "the ESC in 2001 to develop further the Joint Activities/Dialogue sections of the OAA guidelines, building upon the review of the implementation of such guidelines".

With the cooperation of the working groups, the 2001 update of Part II of the OAA has been completed and will be presented separately to Ministers and Leaders for their endorsement in the October meeting in Shanghai, China. The ESC wishes to record its deep appreciation of the effort that Lead Shepherds and members of the working groups have made in carrying out this important work.

The 2001 update of Part II of the OAA and its Annex, focuses in the main on the Joint Activities/Dialogue sections without altering the goals, principles and priorities of the CPC laid down in the OAA. In the case of the Energy Working Group, however, the ESC noted that a revision of the Goals and Basic Principles in the CPC section was necessary to bring it into line with the EWG's Future Directions Strategic Plan.

In the 2001 update, the section dealing with Trade and Investment Data has been dropped, since the task was completed and the TIDWG dissolved in 1999. The update also takes into account that the Agricultural Technical Cooperation Experts' Group and the Policy Level Group on Small and Medium Enterprises were designated as working groups (ATCWG and SMEWG, respectively) last year, with new work programs. Moreover, with the establishment of the ATCWG, references in the OAA to 'Agricultural Technology' should be amended to read 'Agricultural Technology Cooperation' to make it consistent with the nature of the group's activities.

In addition, the 'Strategies' sub-section of the CPC in the Annex dealing with Agricultural Technical Cooperation was replaced by a new sub-section 'Priorities', since the strategies have been accomplished with the establishment of the ATCWG. The new sub-section reflects the seven priority areas of the working group.

Since there was no working group covering infrastructure issues in 1995, and as economic infrastructure is considered to be a cross-cutting issue, a separate work program was not developed in the Annex of the OAA. That remains the case, notwithstanding the establishment of the Group on Economic Infrastructure (GEI) under the ESC last year. However, the infrastructure CPC has been amended slightly to better reflect the proposed activities of the GEI. With this, the ESC considers that relevant fora should take into account the infrastructure initiatives announced by Ministers in 1995 and 1997 when designing projects that advance economic infrastructure goals.

The ESC hopes that with this and any subsequent updates the OAA will be perpetuated as a living document that provides the blueprint for ECOTECH activities in APEC.

Recommendations:

- ***The Goals and Basic Principles in the Common Policy Concepts on energy should be updated to bring it into line with the EWG's Future Directions Strategic Plan;***
- ***References in the OAA Part II to 'Agricultural Technology' should be replaced with 'Agricultural Technology Cooperation' to make it consistent with the nature of the ATCWG's activities, and the 'Strategies sub-section of the CPC in the Annex replaced by a 'Priorities' sub-section to reflect the new priorities of the ATCWG;***
- ***Relevant fora should take into consideration the 1995 Seoul Declaration for the Asia Pacific Information Infrastructure and the 1997 Vancouver Framework for Enhanced Public-Private Partnerships***

in Infrastructure Development when designing projects or activities in furthering economic infrastructure goals;

- ***Working groups should ensure that planned projects and activities are consistent with the Joint Activities and areas for Policy Dialogue that have been identified for their respective fora in the updated OAA Part II; and***
- ***Working groups should provide an annual report on the implementation of Part II of the OAA, so that progress can be monitored.***

6 ECOTECH ACTION PLANS

In 1995, Leaders launched the *Osaka Action Agenda* that marked the beginning of the action phase of the Blake Island vision of a community of Asia-Pacific economies and the Bogor goals of free and open trade, expansion and acceleration of TILF programs and intensified development cooperation. Part 1 of the OAA recommended that the APEC process of liberalisation and facilitation toward achieving the goals set out in the Bogor Declaration would comprise:

- actions by individual APEC economies;
- actions by APEC fora; and
- APEC actions related to multilateral fora.

Each APEC member was invited to develop its Individual Action Plan (IAP) that would elaborate steps toward achieving the objectives set out in Part I of the OAA. The first IAP format was developed by the CTI in 1996 and it was refined further in subsequent years, culminating in the interactive web-based electronic IAP (e-IAP) system last year. The e-IAP comprises 14 chapters providing detailed reporting on actions under the 15 policy action areas specified under the OAA, prefaced by a *Summary of Improvements Made and Further Improvements Planned*, highlighting major initiatives implemented since the last IAP was reported and further trade and investment liberalisation actions planned. The IAP chapters are prepared using agreed standardised chapter reporting formats covering three main components: (i) an overview or summary statement detailing the policy rationale, approach and vision for the economy with respect to the particular OAA action area; (ii) an annual reporting table providing succinct information on the policy approach of the economy and reporting on measures taken since the previous IAP and further actions planned; and (iii) a table covering brief bullet-point listing of cumulative improvements made since 1996.

Members take turns in offering their IAPs for peer review, which takes place regularly in the margins of the SOM. The TILF-IAP concept remains one of the most progressive examples of concerted unilateral efforts at trade and investment liberalisation. The concept of the IAP has become so well known that it is often used to show the uniqueness of APEC's voluntarism. It has assumed a special meaning that goes beyond the factual details recorded; reflecting the individual, unilateral commitments of APEC members towards free and open trade.

With that objective in mind academics, and, since last year, APEC officials, have been considering a similar process to track individual and collective efforts in economic and technical cooperation. This idea was picked up by Ministers at their meeting in Brunei last year. In re-affirming the importance of ECOTECH in achieving the Bogor goals, Ministers called 'for a more focused and intensified action agenda' and instructed officials 'to consider the possibility of establishing IAPs on ECOTECH'.

After a lengthy consideration of the objectives and principles for an 'ECOTECH IAP' at ESC II in May 2001, the ESC agreed on the following:

(i) *Objective*

In general, the individual reports would seek to move forward the ECOTECH agenda to show the progress APEC has made in ECOTECH and to list what cooperative activities economies are considering introducing in response to ECOTECH goals. Specifically, the exercise seeks to achieve those broader goals by permitting APEC economies to identify and share best practices and promote voluntary contributions to ECOTECH activities based on the Common Policy Concepts identified in the Osaka Action Agenda Part II.

(ii) *Terminology*

The ESC also discussed the different positions economies held on the terminology for the proposal i.e. whether or not it should be called an 'IAP'. After considering various options and in order not to confuse this exercise with the TILF-IAPs, a compromise was reached to name the reporting template 'ECOTECH Action Plan' (EAP).

(iii) *The Template*

In response to the ESC's recommendation, the SOM agreed that in the first instance the EAPs would focus on the theme of human resources development (HRD) and would be submitted by members on a voluntary basis. The template adopted would be made up of three columns **Annex 9**. The first column identifies the HRD Common Policy Concepts from Part II of the OAA; and the next two allow members to describe what individual and/or cooperative actions have been undertaken in response to those objectives.

Individual actions would consist of past, present and planned actions, which are domestic policies, projects or programs that have been implemented, are currently being implemented or are to be implemented. *Cooperative actions* would consist of projects and programs that economies have implemented, are implementing and plan to implement to help other APEC economies, to enhance their human capacity. These activities and programs could include *inter alia* training programs, conferences, seminars, ODA projects and APEC ECOTECH activities.

The rationale behind the focus on individual and cooperative actions is to share best practices among APEC economies. Economies can choose to enter projects or programs that they deem worth sharing with other economies into the template. Interested economies viewing the individual actions of a particular economy could approach that economy to learn from its experiences. At the same time, member economies could find opportunities to participate in existing cooperative actions implemented by other economies, such as training programs and conferences. This would help expand the scope and objectives of ECOTECH programs and strengthen ECOTECH's overall agenda. In addition, it would also help raise the profile of ECOTECH's work and facilities, including the ECOTECH Clearing House.

(iv) *Linkage to ECOTECH Clearing House*

The ESC considers that the ECOTECH Clearing House could serve as the information management platform, facilitating easy storage and retrieval of information. In order to keep the template as simple as possible, the details of

the APEC projects would continue to reside on the APEC Secretariat's Projects Database and would be accessed through the ECOTECH Clearing House. Details on non-APEC projects could be accessed through the Clearing House through linkages to contact persons or web sites, where available. New Zealand has offered to assist in technical consultations to facilitate the compilation of the EAPs on the ECOTECH Clearing House.

(v) *Principles of the EAPs*

In agreeing on a template for the EAPs, the ESC noted the concern by economies that the implementation of the proposed EAPs could be an onerous task for economies. The ESC recommended that APEC could, in introducing the ECOTECH EAPs, adopt the following principles:

- The EAPs would be implemented as a pilot program for two years.
- Submission of the EAPs would be on a voluntary basis, i.e., economies would be invited to volunteer to submit ECOTECH EAPs, focusing on HRD.

Several member economies undertook to prepare draft EAPs by SOM III, with a view to submitting them to Ministers at their meeting in Shanghai, China, as an ECOTECH deliverable for 2001.

Recommendation:

- ***Member economies should be encouraged to submit EAPs, focusing on the HRD Common Policy Concepts of the OAA in the first instance, on a trial basis over two years.***

7 SUMMARY OF RECOMMENDATIONS

Chapter 2.2

1. The ESC recommends that:

- APEC fora should refer to the updated Part II of the OAA, including the Annex, and the 1996 Manila Declaration when planning ECOTECH activities, and should clearly identify which objective/s and goal/s are being addressed when seeking funding for projects.
- APEC fora should place more attention to reporting on the outcomes of projects (as opposed to outputs), notably on their impacts on member economies and the community, so that the benefits of ECOTECH can be better communicated.
- APEC fora should incorporate fully into their work program the ECOTECH elements of key mandates agreed by Ministers and Leaders including: sustainable development, gender integration and the APEC Food System.
- In carrying out its evaluation work, the APEC Secretariat should provide guidance and advice to APEC fora on the methodology for assessing project results, as well as on how to define outcomes while planning and designing projects.

Chapter 3.3

2. The ESC recommends that:

- The APEC Secretariat, ESC and all relevant APEC fora should make joint efforts to further strengthen ECOTECH project coordination.
- The ECOTECH Clearing House should be used for submission and discussion of future activities and projects addressing implementation of ASTIC and other key initiatives.
- Relevant APEC fora, especially the working groups, should strengthen science and technology policy dialogue to enhance their work at the strategic level.

Chapter 4

3. The ESC recommends that:

- The ESC reminds APEC fora to clearly articulate the expected outcomes of projects when completing the ECOTECH Weightings Matrix, including how governments, the business/private sector or the community will benefit from individual projects.
- Project proponents and/or fora should be encouraged to seek the assistance of the APEC Secretariat when completing the ECOTECH Weightings Matrix, before submitting project proposals to the BMC.

Chapter 5

4. The ESC recommends that:

- The Goals and Basic Principles in the Common Policy Concepts on energy should be updated to bring it into line with the EWG's Future Directions Strategic Plan;
- References in the OAA Part II to 'Agricultural Technology' should be replaced with 'Agricultural Technology Cooperation' to make it consistent with the nature of the ATCWG's activities, and the 'Strategies' sub-section of the CPC in the Annex replaced by a 'Priorities' sub-section to reflect the new priorities of the ATCWG;
- Relevant fora should take into consideration the 1995 Seoul Declaration for the Asia Pacific Information Infrastructure and the 1997 Vancouver Framework for Enhanced Public-Private Partnerships in Infrastructure Development when designing projects or activities in furthering economic infrastructure goals;
- Working groups should ensure that planned projects and activities are consistent with the Joint Activities and areas for Policy Dialogue that have been identified for their respective fora in the updated OAA Part II; and
- Working groups should provide an annual report on the implementation of Part II of the OAA, so that progress can be monitored.

Chapter 6

5. The ESC recommends that:

- Member economies should be encouraged to submit EAPs, focusing on the HRD Common Policy Concepts of the OAA in the first instance, on a trial basis over two years.

ANNEX 1

Terms of Reference of the SOM Sub-committee for Economic and Technical Cooperation

TERMS OF REFERENCE OF THE SOM SUB-COMMITTEE FOR ECONOMIC AND TECHNICAL COOPERATION

A. BACKGROUND

1. SOM has been mandated by Leaders to mandate and coordinate the APEC Economic and Technical Cooperation (ECOTECH) agenda. In Vancouver, Ministers have committed to further strengthen economic and technical cooperation in APEC by fully implementing *the Framework for Strengthening Economic Cooperation and Development*, which was agreed in Manila. In this connection, Ministers endorsed the proposal by Senior Officials to establish a SOM Sub-Committee for Economic and Technical Cooperation.
2. The SOM Sub-Committee will assist the SOM in coordinating and managing APEC's ECOTECH agenda, as well as identifying value-added initiatives for cooperative action.

B. OBJECTIVES

3. The main objective of the SOM Sub-Committee is to advance more effective implementation of the APEC's ECOTECH agenda by consulting with and integrating the efforts of various APEC fora through a results-oriented, outcomes-based approach which benefits all member economies; providing a policy management tool for strengthening and streamlining APEC's work; and providing guidance on possible actions which could be undertaken to achieve APEC ECOTECH goals, namely:
 - To attain sustainable growth and equitable development in the Asia-Pacific region;
 - To reduce economic disparities among APEC economies;
 - To improve the economic and social well-being of the people; and
 - To deepen the spirit of community in the Asia-Pacific.
4. The pursuit of the ECOTECH goals through concrete projects will take into consideration members' diverse and complementary capabilities and guided by the principles of :
 - Mutual respect and equality;
 - Mutual benefit and assistance;
 - Constructive and genuine partnership; and
 - Consensus building.
5. The SOM Sub-Committee will serve as a forum to discuss, formulate as well as coordinate action oriented integrated strategies in consultation with existing APEC groups and the business community, as necessary to

implement the *APEC Framework for Strengthening Economic Cooperation and Development* which has identified the following six priority themes:

- Develop human capital
- Develop stable, safe and efficient capital markets
- Strengthen economic infrastructure
- Harness technologies for the future
- Safeguard the quality of life through environmentally sound growth
- Develop and strengthen the dynamism of SMEs

Activities

5. The SOM Sub-Committee will :

- Report to SOM on its proposed work program and assist the SOM to effectively implement the *1996 Framework for Strengthening Economic Cooperation and Development*. In so doing, the SOM Sub-Committee shall ensure that all the elements of the Framework are developed.
- Review progress of APEC activities towards achieving APEC ECOTECH goals.
- Identify and recommend for Senior Officials consideration specific issues and value added initiatives to assist the achievement of ECOTECH goals taking into account the economic situation, requirements and capacities of all member economies.
- Examine and evaluate ECOTECH programmes and activities and recommend to Senior Officials means to achieve visible, targeted and result-oriented deliverables to address member economies priorities.
- Assist the SOM to improve the management and coordination of ECOTECH activities among APEC fora, including APEC working groups and policy level committees, with a view to improving the identification and coordination of new cross-cutting issues.
- Evaluate proposals to include new priority areas within the *Framework for Strengthening Economic Cooperation and Development*.
- Encourage active participation of the private sector in the activities of economic and technical cooperation. Consider the recommendations of ABAC regarding the process of economic and technical cooperation in APEC.
- Undertake ECOTECH-related tasks as directed by Senior Officials.

C. ORGANISATION AND OPERATION

6. A Chairperson will be appointed who will be devoted to meeting the objectives of the SOM Sub-Committee.

7. A Vice-Chairperson(s) will be appointed to assist the Chair in managing the tasks and work program of the SOM Sub-Committee.
8. The Chairperson and Vice Chairperson(s) will serve for a term of two years.
9. Membership of the SOM Sub-Committee will be open to all economies.
10. The SOM Sub-Committee shall meet regularly.
11. The SOM Sub-Committee would report regularly to the SOM.
12. The operation and effectiveness of the SOM Sub-Committee will be reviewed at the end of a 2 -year term.

ANNEX 2

ESC Work Program 2001

ECOTECH Sub-Committee of the SOM

2001 WORK PROGRAM

The mission of the ECOTECH Sub-Committee of the SOM (ESC) is to assist the SOM in coordinating and managing APEC's ECOTECH agenda and identifying value-added initiatives for cooperative action. The ESC seeks to advance effective implementation of that objective this year by:

I. Evaluating and Developing ECOTECH Activities

- Developing Part II of the *Osaka Action Agenda*
- Evaluating the outcome of completed ECOTECH projects
- Monitoring the progress and achievements of key directives of APEC Leaders and Ministers:
 - Human Capacity Building with respect to the New Economy and Digital Divide;
 - ECOTECH Action Plans (EAP); and
 - APEC Food System.

II. Participating in and coordinating for a more efficient and focused outcome in ECOTECH projects and capacity building activities

- Monitoring and assessing usage of the ECOTECH Clearing House website
- Demonstrating key outcomes of ECOTECH through accomplished activities like best practices, data base , network
- Establishing a network and partnerships among key stakeholders as track II of the APEC process (Public-Private-Academic) at the economy level
- Enhancing closer coordination among different APEC working groups/fora on
 - Cross-cutting issues;
 - ECOTECH Action Plans (EAP); and
 - Capacity Building on TILF elements, EVSL, WTO commitment as well as strengthening markets activities.

III. Disseminating the benefits of ECOTECH through APEC's communications and outreach programs

- ESC's annual report (2001)
- Report on Human Capacity Building
- Coordinate with APEC working groups/fora on outreach programs

ANNEX 3

Number of Projects Conducted by APEC Fora Under Each ECOTECH Theme

NUMBER OF PROJECTS CONDUCTED BY APEC FORA UNDER EACH ECOTECH PRIORITY THEME

APEC Fora	ATC	EWG	FWG	HRD	IST	MRC	SME	TEL	TWG	TP	TPT	CTI	EC	AGGI	FIN	SOM	TOTAL
Priority Themes																	
Developing Human Capital	5	1		8	1			4	2	1	2	22	2	3		2	53
Fostering safe, efficient capital markets															5		5
Strengthening economic infrastructure		6						2	2		1	1					12
Harnessing technologies for the future	3	2		1	11	2		3			3	2					27
Promoting environmentally sustainable development		13	5		4	5			3		2	2					34
Encouraging the growth of small and medium -sized enterprises				2	1		8	1	1	2	1				1		17
Total	8	22	5	11	17	7	8	10	8	3	9	27	2	3	6	2	148

ANNEX 4

TYPES OF ECOTECH ACTIVITIES CONDUCTED BY APEC FORA

**SUMMARY TABLE OF THE TYPES OF ECOTECH PROJECTS
IN-PROGRESS OR COMPLETED BY APEC FORA IN 2001**

APEC Fora Type of Activity	ATC	EWG	FWG	HRD	IST	MRC	SME	TEL	TWG	TP	TPT	CTI	EC	AGGI	FIN	SOM	TOTAL
<i>Survey/Study/Report</i>	-	12	-	4	4	3	1	5	3	1	6	2	1	-	-	-	42
Workshop/Seminar	6	6	4	6	10	2	7	-	-	2	1	11	1	1	-	2	59
<i>Training</i>	1	1	-	1	1	1	-	2	1	-	1	13	-	-	6	-	28
<i>Standards/Best Practice</i>	-	1	-	-	-	1	-	-	2	-	1	1	-	1	-	-	7
<i>Database/Website/Network</i>	1	2	1	-	1	-	-	3	2	-	-	-	-	1	-	-	11
<i>APEC Centre/Exposition</i>	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL	8	22	5	11	17	7	8	10	8	3	9	27	2	3	6	2	148

ANNEX 5

**EARLY VOLUNTARY SECTORAL
LIBERALISATION**

ECOTECH ELEMENTS

EARLY VOLUNTARY SECTORAL LIBERALISATION (EVSL)

ECOTECH ELEMENTS¹

SECTOR	SUMMARY OF WORK PLANS/PROGRESS ACHIEVED
Forest Products	<p>Significant progress in enhancing forest management and in facilitating trade liberalisation in this sector should be achieved by December 2002.</p> <p>To meet these goals, four ECOTECH proposals have been approved by the BMC for implementation from Year 2000/2001 onwards, viz.:</p> <ul style="list-style-type: none"> (a) Research on the Method of Assessing Forest Resources by Remote Sensing; (b) A study on Methods to Detect and Control Forest Damage Areas Caused by Insects and Diseases with Remote Sensing, General Information System (GIS) and Global Position System (GPS); (c) Internet-oriented Multimedia Database of Assessment, Utilisation and Trade of Wood of Main Tree Species in APEC member economies; and (d) An Investigation of and Exchange of Information on the Critical Factors Affecting the Trade and Export of Furniture by APEC Developing Economies in the Global Market. <p>The research project on a new method of monitoring and assessing forest resources, i.e. (a), is being carried out and is expected to be completed before the end of 2001.</p> <p>The objective of project (d) is to provide a forum for the investigation of, and sharing of information on the critical factors affecting the trade and export of furniture by APEC developing economies in the global market. In this connection, an APEC Furniture Symposium is being scheduled to take place in Manila, the Philippines, on 20-22 September 2001.</p>
Environmental goods and services	<p>Under environmental goods and services, ECOTECH projects have been developed to ensure that the future trade liberalisation not only brings economic benefits but also enhances cost-effective environmental protection. The greater availability and choice of environmental goods and services was expected to help economies to address a range of sustainable development challenges. Two ECOTECH</p>

¹ Extracted from detailed status reports and updated where appropriate based on submissions from coordinators and latest known/available information.

SECTOR	SUMMARY OF WORK PLANS/PROGRESS ACHIEVED
	<p>projects, 'Study on Impacts of Financial Crisis in South-East Asia on Trade Liberalisation in Environmental Goods and Services within APEC Economies' and 'Survey of Environmental Markets in APEC', were completed in June 2001.</p>
Fish and fish products	<p>The APEC Fisheries Working Group (FWG) has assumed general responsibility for the work arising out of this EVSL initiative.</p> <p>ECOTECH initiatives aimed at contributing to the goals of fisheries conservation, trade facilitation and economic growth, including adjustment to trade liberalisation were considered. Two ECOTECH projects were formulated in this regard. The project relating to the Study into the Nature and Extent of Subsidies in the Fisheries Sector of APEC Economies has been completed while the report of the second project 'A Study to Reduce Impediments to Early Voluntary Sectoral Liberalisation (EVSL) in the Fisheries Sector' is being finalised.</p>
Toys	<p>To facilitate the implementation of the toys EVSL initiative, two ECOTECH proposals were approved by the BMC in July 1999 for implementation. The first, a Seminar on Implementation of the ISO Toy Safety Standard, was completed in March 2000 while the implementation of the second project, 'Program of Training and Development of Designers & Sample Market in the Toys & Novelties Industry', has been delayed. The disbursement deadline was extended to September 2001.</p>
Gems and jewelry	<p>Various proposals were developed to promote joint research and development, cooperation, flows of technological information and enhance educational and training. Following the completion of the two projects approved by the BMC for implementation in 1999/2000, no further projects have been put forth.</p>
Chemicals	<p>ECOTECH programs aimed at extending a responsibility program such as Responsible Care, strengthening the capacity of economies to address NTMs, and technical assistance and training programs to help regulators in APEC economies will continue to be conducted by the chemical industry on an ongoing basis. The ECOTECH program throughout the region is conducted by the Asia-Pacific Chemical Industry Coalition (APCIC).</p> <p>Several workshops on labelling regulations and Material Safety Data sheets (MSDS) training were held in China, Korea, Malaysia, Mexico, the Philippines and Thailand. The industry is continuing to conduct such workshops on an on-</p>

SECTOR	SUMMARY OF WORK PLANS/PROGRESS ACHIEVED
Fertilizers	<p>Not applicable. The fertilizers sector is already served by a wide number of readily available ECOTECH opportunities as provided by various industry associations. See, for example, the services offered by the International Fertilizer Industry Association, Potash & Phosphate Institute and the Potash & Phosphate Institute of Canada. These organisations may be contacted directly through their websites - http://www.fertilizer.org/ and http://www.ppi-far.org/</p>
Automotive	<p>An APEC Automotive Dialogue (comprising high-level government and industry representatives) was established to enhance and build upon auto-related activities within APEC. It serves as a forum for governments and industry to work together to map out strategies for increasing integration and development of the automotive sector within the Asia-Pacific region. The meetings of the Automotive Dialogue are guided and facilitated by a Steering Committee.</p> <p>The Dialogue has put in place a substantive work program looking at areas such as assistance to automotive suppliers; effective automotive policies; harmonization of automotive technical regulations; e-commerce and other electronic networking; automotive industry profiles and ECOTECH; customs issues; traffic congestion and the environment; and intellectual property rights.</p> <p>A new project, 'Adoption of Quality Management Systems (QMS) in the Auto-Parts and Components Industry' has been approved by the BMC for implementation in 2002. The project seeks to assess the current status of the automotive supplier industry in relation to the adoption of Quality Management Systems (QMS) in their operations and facilitate the adoption of QMS based on international standards in automotive parts and components firms, particularly in the Small and Medium-sized Enterprises (SMEs), thereby uplifting their core competencies to be globally competitive.</p>
Oilseeds & oilseed products	<p>No developments in the EVSL area. Work was to be continued with the GEI in the areas of biotechnology, post-harvest handling, sustainability, rural infrastructure development and other relevant areas.</p>
Civil aircraft	Not applicable.

ANNEX 6

Agenda for S&T Industry Cooperation

Definitions

DEFINITIONS

These definitions relate to the elements of the *APEC Agenda for Science and Technology Industry Cooperation into the 21st Century* analysed in this report:

- **Business/Private sector involvement:** Ecotech project records include an indication of whether the business/private sector is involved in the project.
- **Gender and S&T:** projects which are targeted clearly at enhancing the involvement of women in Science and Technology.
- **Mechanism 1: Improved availability of, and access to, information**
 - Systems to facilitate information access and communication among APEC fora and all sectors of APEC member economies, including SMEs and relevant business and NGOs.
 - Member economies to commit to collecting, standardising and disseminating the statistics and information useful to policy makers and the business/private sector.
 - Interoperability of information exchanged through networks.
 - S&T databases and information on technology management practices.
- **Mechanism 2: Improved human resources development**
 - Creative scientific and technical men and women.
 - Develop the full spectrum of human resources relevant to industrial science, engineering and technology including management, research and development and users.
 - Facilitate regular exchange of scientists engineers and technologists among APEC economies, including strengthening efforts on mutual recognition of professional qualifications.
 - Role of business/private sector in enhancing the human resources of SMEs.
- **Mechanism 3: Improved business climate:**
 - Open business climate, a consistent, transparent and timely legal framework.
 - Includes but is not limited to: IP rights, standards and metrology, safety assurance, investment and financing including development of venture capital markets, joint venture operations, environmental protection, and researcher mobility.
 - Promotion of entrepreneurship.
- **Mechanism 4: Enhanced policy dialogue and review**
 - Share information on efficiency and effectiveness of alternative policy and program approaches, including the use of foresight methodologies.

- Dialogues among Ministers and among APEC officials and business/private sector entities concerned with strengthening science and technology industry cooperation.

- **Mechanism 5: Facilitate networks and partnerships**

- Review initiatives and processes and establish new ones as needed to catalyze the creation of S&T networks and partnerships and to encourage cooperative R&D projects.
- Encourage synergistic and complementary flows of technology among partnerships and networks of private companies, non-governmental entities and the public sector.
- Develop new initiatives including common use of large-scale facilities.

ANNEX 7

Overview by APEC Secretariat of APEC Activities in Sustainable Development

OVERVIEW OF APEC ACTIVITIES IN SUSTAINABLE DEVELOPMENT FOR 2001

Introduction

In 1997, the ECOTECH priority theme of sustainable development was further defined in the Environment Ministers' Meeting in Toronto, Canada by identifying the priority activities in the 3 areas: 1) clean technology/clean production, 2) sustainable cities, and 3) the sustainability of the marine environment. It also highlighted the issue of 'the Impact of Economic Growth and Expanding Population on Food, Energy, and Environment (FEEEP)'.

In November 1998, in Kuala Lumpur, Malaysia, APEC Leaders reiterated their commitment to advance sustainable development across the entire spectrum of the APEC work plan. Ministers and Leaders outlined the priorities on sustainable development in the following five areas:

1. Cleaner Production;
2. Protection of the Marine Environment;
3. Sustainable Cities;
4. Food, Energy, and the Environment in Relation to Economic and Population Growth (FEEEP) –now completed, and
5. The APEC Framework for Capacity Building Initiatives on Emergency Preparedness.

In the following years after the Environment Ministers' Meeting in 1997, there has been no formal meeting of the Senior Environment Officials group. However, as sustainable development is a cross-cutting issue implementation of the related initiatives have been carried out by the relevant sectoral fora.

Following a request by Ministers in 1996, Senior Officials tasked the APEC Secretariat to compile an annual overview of sustainable development work across APEC fora. This overview updates the stocktaking exercise on sustainable development for 2001.

In this year's assessment, 34 projects/activities, including APEC-funded and self-funded projects, relate to the sustainable development theme. Some of those do not have this theme identified as the primary objective in the APEC Project Database and as the nature of the activities is not always clear-cut it is difficult to categorise them into one of the four sustainable development areas. This year the EWG is the most active group with 13 projects that relate to sustainable development, followed by the FWG and the MRCWG. The ISTWG is responsible for work on the infectious disease element of the *Emergency Preparedness Initiative*.

Some projects have shown strong participation from the business/private sector either as speakers or as participants. They also appear to be involved in the preparation of proposals. In addition, the involvement of NGOs has been encouraging, albeit from various academic or regional international institutions. The participation of the business/private sector and the contribution of NGOs have increased the awareness of sustainable development.

I. SPECIFIC INITIATIVES RELATED TO SUSTAINABLE DEVELOPMENT BY APEC FORA

Committee on Trade and Investment (CTI) is responsible for coordinating APEC's work on trade liberalisation and investment as outlined in the *Osaka Action Agenda*. The CTI and its sub-fora, where appropriate, help to integrate relevant initiatives of sustainable development into APEC's TILF activities.

The CTI also oversees the implementation of non-tariff measures, facilitation and ECOTECH components of the 15 sectoral initiatives selected by Leaders in Vancouver, Canada. These sectoral initiatives, commonly referred to as the Early Voluntary Sectoral Liberalisation (EVSL) initiatives contain several activities that contribute to sustainable development. Such activities include the forestry, fishery and environment sectors. In the forestry and fisheries sectors, sustainable management programs are being developed to ensure increased trade does not lead to unsustainable practices. A research project on a new method of monitoring and assessing forest resources is being carried out in the forestry sector and is expected to be completed before the end of 2001.

Under the environmental goods and services sector, ECOTECH projects have also been developed to ensure that the future trade liberalisation not only brings economic benefits but also enhances cost-effective environmental protection. The greater availability and choice of environmental goods and services is expected to help economies to address a range of sustainable development challenges. Two ECOTECH projects, 'Study on Impacts of Financial Crisis in South-East Asia on Trade Liberalisation in Environmental Goods and Services within APEC Economies' and 'Survey of Environmental Markets in APEC', were completed in June 2001.

Agricultural Technical Cooperation Working Group (ATCWG)

The ATCWG is continuously implementing activities related to sustainable development. In 2001 the ATCWG is planning to hold the 'Second Seminar-Workshop on Sustainable Agriculture' and the 'Fourth Workshop on Conservation and Utilisation of Plant and Animal Genetic Resources.

Energy Working Group (EWG)

The EWG continues to implement its work program to mitigate the environmental impacts of energy production, delivery and use. It does so by:

- Promoting the advantages of clean fossil energy technologies;
- Encouraging the adoption of policies and programs promoting energy conservation and the application of energy efficient technologies; and
- Maximising technology assimilation by making members more able to assess, operate and maintain new and renewable energy technologies.

During the 4th APEC Energy Ministers Meeting held in May 2000, in San Diego, USA, Energy Ministers issued a Joint Statement on Clean Energy and Sustainable Development, which will guide the EWG in its work in the coming years.

As instructed by Energy Ministers the EWG is undertaking a work program designed to apply to the APEC electricity sector environmental policy practices that are predictable, transparent and consistent. The EWG is also pursuing a work program aimed at establishing a low-risk environment to encourage investment in natural gas supplies, infrastructure and trading systems. This will help members increase their use of cleaner energy and help to reduce harmful emissions into the atmosphere. Finally the EWG is promoting the uptake of environmentally sound and efficient measures in mineral and energy exploration and development. The EWG has also undertaken a number of activities aimed at developing energy infrastructure in an environmentally sound manner.

The EWG is also promoting the adoption of common test standards for laboratories that measure the efficiency of energy-using equipment, and the acceptance of test results throughout the region. This will help encourage sales of energy efficient equipment and promote more energy efficient technologies.

Fisheries Working Group (FWG)

Being aware of the close relationship between the fisheries industry and environment and sustainable development, the FWG is continuing to put into effect collaborative regional projects to meet the challenges of a growing aquaculture industry whilst maintaining the environmental integrity and long term sustainability of aquaculture operations.

The main efforts of the FWG have been devoted to the issues of fisheries management, developing industry standards for live reef food fish trade, and coastal resource management to ensure the growth of the aquaculture industry and maintenance of sustainable development. FWG also focused on cyanide fishing and other destructive fishing practices. A strategy for a joint FWG/MRCWG (virtual) Task Force on Destructive Fishing Practice has been developed.

Group on Economic Infrastructure (GEI)

The GEI RISE initiative (Regional Integration for Sustainable Economies) is an example of the application of sustainable development practices in a comprehensive manner at the local (regional growth centre) level. The policy, program and capacity building stance encouraged and applied in the two pilot areas: Jiangmen, China, and Manado Bitung, Indonesia, address:

- Protection of the marine environment through identifying needs for local capacity development and certification in aquaculture in Jiangmen and to improve fisheries surveillance and protection in Manado Bitung.
- Sustainable cities development through the encouragement of waste management schemes and wider community participation in local planning processes.
- Sustainable rural development through the creation of community advancement, employment and other economic opportunities that respond to local land usage and cultural values, and foster sustainable use of local resources, diversification of opportunity creation for women, and encourage a reversal of generation drift from rural areas to distant cities.

Human Resources and Development Working Group (HRDWG)

Since 1998, the HRDWG has designated a focal point for sustainable development to coordinate working group activities more efficiently in this area, not only within the HRDWG but also in relation to other APEC fora. The focal point is responsible for reviewing how HRDWG activities respond to the recent directions from APEC Leaders and Ministers; and how HRDWG activities may complement the activities of other APEC working groups.

In the HRDWG, various projects have been designed and carried out to support the APEC Leaders' priority on sustainable development. These were mainly channeled through the HRDWG's work in its three networks: the Education Network (EDNET), the Labor and Social Protection Network (LSPN), and the Capacity Building Network (CBN) - to build the capacity of, educate, train and manage economic, administrative, social and environmental institutions. The HRDWG has 'supporting the management of sustainable growth and development' as one of its strategic priorities, from which the annual work program is formulated. Activities conducted under this priority include programs to upgrade the workforce skills base which aims for sustainable economic development in the long-run.

The HRDWG also has a strategic relationship with the APEC Network for Sustainable Development which is accessible on the Internet at www.apecnetwork.org and supports capacity building to advance sustainable practices in the public and business/private sectors in APEC economies. It was originally initiated under the HRDWG as the APEC Sustainable Development Training and Information Network to link training and information resources throughout APEC. It aims to promote capacity building and human resources development in five target areas: *Sustainable Cities; Marine Environment; Cleaner Production; Sustainable Energy; and Agriculture and Forestry.*

Industrial Science and Technology Working Group (ISTWG)

Sustainable development continues to be a major element of the ISTWG's projects. The ISTWG held a Cleaner Production Roundtable Discussion during its 20th Working Group meeting, where the 'APEC Forum on Cleaner Production-Design for Environment' was suggested as a new project. This Roundtable Discussion mechanism is expected to be conducted annually in the margins of the ISTWG meetings.

Marine Resources Conservation Working Group (MRCWG)

The MRCWG is responsible for coordinating the implementation of the *APEC Action Plan on Sustainability of the Marine Environment*, which was approved by APEC Environment Ministers in June 1997.

During its 13th meeting held in Lima, Peru, in June 2000, the MRCWG discussed a suggested approach to ensure a more comprehensive implementation of the Action Plan. This approach includes:

- Establishing a small group of voluntary member economies to undertake a review and analysis of the performance measures;
- Developing concrete criteria that can be used to measure progress; and

- Drafting a set of project outlines that cover the full range of activities needed to fully implement the Action Plan.

In its 14th meeting in Hong Kong in May 2001, the MRCWG further discussed and agreed key recommendations for the implementation of Action plan. However, the meeting suggested the full analysis be completed before it was taken forward to Ministers.

In 2001, the MRCWG has continuously carried out a number of activities related to the sustainability of the marine environment, including: projects on management and mitigation of harmful algae blooms; strengthening the coordination of integrated coastal management; and assessment of the environmental safety of aquaculture farms.

During its 13th meeting, the MRCWG also considered a draft strategy for a Virtual MRCWG/FWG Task Force on Destructive Fishing Practices and agreed to continue to develop it out of session. At its 14th meeting, the said strategy was further discussed and developed in the FWG/MRCWG joint session. Also the concerns and interests of both working groups on the following issues were noted:

- Management and enforcement strategies for marine parks, aquaculture and fishery resources;
- Exotic marine species introduction;
- Capacity building on marine and fishery resources, and coral reef conservation;
- The strategy on the implementation of destructive fishing practices;
- The proposed Ministerial Meeting on ocean related issues;
- Information sharing and cooperation mechanisms between the two WGs.

Telecommunications and Information Working Group (TELWG)

While few activities of the TELWG relate directly to sustainable development, many projects in areas such as electronic commerce, distance learning and information and communications technology development contribute to sustainable development by reducing resource depletion through innovative usage of information and communications technology (ICT). In 2001, the Telecom Techno-Economic Modeling Project aims to develop a framework to identify and analyse the social, economic and technical factors that influence the viability of telecommunications strategies and services.

Transportation Working Group (TPTWG)

The TPTWG's Steering Committee on Safe and Environment-Friendly Transportation oversees specific projects and activities pursuing the overall safety and environment-related goals agreed upon by APEC Transportation Ministers in 1995 and 1997. In 2001, the Steering Committee undertook to work more closely with the MRCWG on environmental issues. A project for implementation in 2001 is the Analysis of the Economic Benefits of the Provision of Hydrographic Services in the APEC region. The ongoing work of the

TPT on development of Intelligent Transport Systems (ITS) in the region will assist in the reduction of pollution and traffic congestion.

Tourism Working Group (TWG)

The First APEC Tourism Ministerial Meeting was held in Seoul, Korea, on 4-7 July 2000. Ministers endorsed the *Seoul Declaration on an APEC Tourism Charter : A Ministerial Statement of Purposes and Intent*. Tourism Ministers established Four Policy Goals for economies to foster the development of tourism and enhance its contribution in the APEC region. Policy Goal No. 3 is titled 'Sustainable Management on Tourism Outcomes and Impacts'. In particular, Tourism Ministers will seek to achieve this goal by pursuing policies that:

- Demonstrate an appreciation and understanding of our natural environment and protect that environment;
- Foster ecologically sustainable development opportunities across the tourism sector, particularly for small and medium-sized enterprises, and employment and provide for open and sustainable tourism markets;
- Protect the social integrity of host communities with particular attention to the implications of gender in the management and development of tourism;
- Recognize, respect and preserve local and indigenous cultures together with our natural and national cultural heritage; and
- Enhance capability building in the management and development of tourism.

At the TWG meeting in Malaysia in April 2001, positive progress was identified and it was reported that the Policy Group is on track to deliver outcomes for the Second APEC Tourism Ministerial Meeting to be held in Mexico in 2002. Relevant projects being carried out by the TWG in 2001 include 'Training for Sustainable Development in the Tourism Industry' and 'Public-Private Partnerships for Sustainable Tourism'.

Trade Promotion Working Group (WGTP)

There are not many activities conducted by the WGTP that directly relate to sustainable development. However, some projects carried out have sustainable development objectives in mind. For example, the Seminar on Product Design in May 2001.

The function of the website of the WGTP and APECNet not only help improve business opportunities they also have a positive impact on sustainable development by reducing the consumption of related material in traditional business dealings.

II. SUSTAINABLE DEVELOPMENT BY CATEGORIES

1. Study/Research/Report/Publication

- 'Regional Integration for Sustainable Economies (RISE)' - promising strategies and practical means of implementation for development of rural areas and their urban hubs, including economic activities, related community development and environmental measures, together with supporting services and infrastructure. GEI
- 'Environmentally Sound Energy Infrastructure - Phase II.' - to promote good practice in environmental policy to provide business-sector developers with predictable conditions to allow flexibility in meeting environmental requirements most cost effectively. EWG
- 'A study of CO₂ Reduction Options in the APEC Region' - to survey the current status of the approaches taken by member APEC economies to reduce CO₂ emissions in the APEC region. The results of the survey will be basis of future studies that will examine individual economies and provide suggested solutions to further reduce CO₂ emissions. EWG
- 'Survey of factors Influencing Demand for Minerals and Metals in the APEC region'-to provide a qualitative and quantitative analysis of the factors influencing the demand for copper, nickel, iron, zinc and aluminium in the context of development trends in the Asia-Pacific region. EWG
- 'Development of Algorithm Criteria' - to reduce the need for testing by having algorithms that convert energy performance test results from one test to another, and to have regulatory authorities accept the use of such algorithms in place of repeat testing. EWG
- 'Measuring the Impacts of Regulatory Reform in the APEC Energy Sector' - to provide quantitative analysis of the broad economic impacts of policies to deregulate energy markets in the APEC region and to assess the potential benefits of reform at both the economy wide level as well as at the energy sector level. EWG
- 'Addressing the Barriers to the Inter-Connection of Power Grids in APEC Member Economies' - to identify the barriers to the interconnection of power grids in APEC member economies, and to recommend and disseminate information on, and strategies for, overcoming those barriers. EWG
- 'Energy Standards Information Development and Coordination' - to reduce barriers to trade created by having different energy performance test methods and energy performance requirements. EWG
- 'Clean Transportation Fuels Supply Security' - to develop and gain a greater and more practical understanding of how clean fuel specifications will affect demand and supply and prices in the region. EWG
- 'APEC joint project for the 'Recovery and Utilisation of Methane Emitted from Municipal Landfills' -will assess the quality and quantity of the landfill gas resource at selected sites in Thailand, Indonesia, and the Philippines. EWG
- 'Collaborative APEC Grouper Research and Development Network' - to develop a regional collaborative approach towards research into the culture of live reef fishes. FWG

- 'APEC Seafood Information System (SIS) - Phase 2 - to test the feasibility of improving and expanding the market and industry information service provided by GLOBEFISH and the FAO Regional Marketing Information Advisory Services for Fishery Products on a cost-recoverable basis for the benefit of business/private sector participants and government officials throughout APEC. FWG
- 'Farming the Reef: A State-of-the-Art Review of Aquaculture of Coral Reef Organisms in Tropical Nearshore Environments' - to address the issue of aquaculture as part of the solution to curb over-and-destructive fishing in coral reefs. FWG
- 'Identify IST Needs and Sources for Enhancing Industries' 'Greener Business' Capability' - to help APEC economies to adhere to eco-trade restrictions and to create a win-win situation in terms of economic development and environmental protection. ISTWG
- 'Development of Utilisation Technologies for Waste Water for the Production of Valued Substances' - to assist APEC economies to develop profitable use of wastewater for production for commercially valuable substances. ISTWG
- 'Emerging Infectious Diseases: Influenza Virus Surveillance Focused on the Rapid Identification of Newly Emerging Viruses' - to help APEC economies to respond to new influenza virus. ISTWG
- 'Study on Production of Valuable Agro-Chemicals from Unused Biomass by Cascade Utilisation' - to study how to extract and produce tannin derivatives for wood from unused woody biomass. ISTWG
- 'Collaborative Research on Disaster Prevention' - to secure safety and prosperity by preventing and mitigating the effect of earthquakes. ISTWG
- 'Development of Biodegradable Plastics' - to promote research on biodegradable plastics made from tropical farm products. ISTWG
- 'Health Assessment and Prevention Related to Forest Fires: Population Exposures and Associated Health Impacts' - to conduct a comprehensive study of health effects in the population affected by the 1997 Asian fires. ISTWG
- 'Acid Rain Monitoring System' - to promote comprehensive research and develop on-site advanced acid rain monitoring system. ISTWG
- 'Adoption and Development of a Multilingual Environmental Thesaurus System' - to develop a standardised reference language for environmental terminology. ISTWG
- 'Survey on the Areas for round Robin Testing of Materials Properties' - to establish a technological cooperative framework and facilitate technology transfer among member economies in the fields of materials testing and evaluation technology. ISTWG
- 'Molecular Epidemiology of Dengue Viruses' - to upgrade common capabilities to deal with dengue hemorrhagic fever in the APEC region. ISTWG
- 'EID: Enhanced Use of Communications to Strengthen Surveillance and Control of New Infections in APEC' - To establish a regional EID cooperative system to enhance the collective capacity for disease surveillance and outbreak response among APEC economies. ISTWG

- 'Development and Validation of Phycotoxin Analytical Methods, Standards and Reference Materials for Seafood Product Certification and Safety (Year 2 of a 3 year project)' - to validate analytical methods that can be employed to test natural toxins derived from marine algae. MRCWG
- 'Public-Private Partnership for Sustainable Tourism' - to identify best practices in public-business/private sector partnerships for sustainable tourism in the APEC regions; to maximize opportunities and mitigate problems in a systematic and comprehensive manner between the public and business/private sectors; and to prepare a standard so as to achieve integrative control and analyse social, environmental and economic effects for sustainable tourism. TWG
- 'APEC Paperless Trading Demonstration Project- Electronic Transmission of the SANCRT Message' - to identify institutional barriers to the removal of paper requirements used in international cross border trade within APEC, provide solutions and conduct a demonstration project. TPTWG
- 'Analysis of the Economic Benefits of the Provision of Hydrographic Services in the APEC Region' - to provide an analysis of the economic benefits of hydrographic services to APEC member economies; and to provide governments in the APEC region with guidelines on appropriate levels of investment in hydrographic services to ensure the safety of shipping and improve the efficiency of shipping. TPTWG
- 'Electronic Port Manifests Project' - to identify options for creating an electronic document for port manifests, which could be combined with harmonized electronic customs declarations. TPTWG
- 'Efficiency in the Facilitation of International Seaborne Trade' - to increase the efficiency of those processes and procedures relating to vessel arrival, stay and departure in the Southeast Asian region through streamlined and simplified customs, immigration, quarantine and port authority procedures. TPTWG

2. Workshop/Symposium/Forum

- 'APEC Symposium on E-Commerce and Paperless Trading' - to create awareness and enhance the capabilities and skills of high-level officials; highlight policies and technologies being used to bridge the gap in paperless trading development among APEC economies; exchange views on views on policy approaches, technical developments and the future directions of ICT; contribute to development of a multi-fora, cross-cutting APEC work program on paperless trading; showcase successful paperless trading initiatives; and ensure that a new range of trade barriers is not inadvertently built into electronic trade administration systems currently under development. CTI
- 'SCCP Technical Assistance Program to Reduce the Requirement for Paper Document Needed for Customs Administration' - to enhance trade facilitation by reducing requirements for paper documentation in customs - trade transactions. CTI
- 'APEC Project for the Conservation and Management of Sharks' - to identify the need for areas of collaboration and technical cooperation in the implementation of the FAO IPOA Sharks to collect data for an assessment of sharks' population allowing for sustainable use of the species. FWG

- 'Management of Marine Algal Toxin in Seafood Products in the APEC Region' - to strengthen and facilitate trade in seafood products in the APEC region and to improve public health protection in APEC member economies. MRCWG & FWG
- RISE - utilised as part of the dialogue based planning process in both Jiangmen, China, and Manado-Bitung, Indonesia, RISE pilot areas. GEI
- 'NGO Conference on Enhancing the Contribution of S, E & T to Sustainable Economic Growth' - to establish networks and partnerships at all levels to enhance innovation and to systematically engage NGOs and the business/private sector in S&T policy discussion. ISTWG
- 'APEC Virtual Centre for Environmental Technology Exchange' - to establish an APEC virtual centre in each economy for environmental technology. - ISTWG
- 'APEC Environmental Technology Verification' - to develop key criteria and methods for comparative analysis of environmental technology in the APEC region. ISTWG
- 'APEC Conference on Sustainability of the Marine Environment: What Can Private Sector Do?' - to identify how the MRCWG can involve business/private sector in ocean industries, and how the activities can benefit the ocean industries to achieve sustainability of the marine environment in the APEC region. MRCWG
- 'Environmental Cooperation Workshops for Sustainable Development of Mining Activities' - to discuss best practices in mining activities, clean technology for mining activities, and international regulations against the background of sustainable development in minerals and metals. EWG
- The Fourth Workshop on Conservation and Utilisation of Plant and Animal Genetic Resources. ATCWG
- The Second Seminar - Workshop on Sustainable Agriculture. ATCWG
- Seminar on Product Design ' - to share information and know-how that include the awareness of the conservation of natural resources. TPWG
- 'Ocean Models and Information System for the APEC Region (Year 5)' - to coordinate the APEC scientific communities in developing regional and sub-regional ocean models for assessing the potential impact on marine resources of economic development in the Asia-Pacific region. MRCWG
- 'Development of a Management Framework for APEC Economies for use in the Control and Prevention of Introduced Marine Pests (Phase 1 of a 2-phase project)' - to develop a management framework to be used as an on-the-ground management tool to help protect APEC's marine and coastal environments from introduced marine pests and relevant human pathogens. MRCWG
- 'APEC Seminar on Trade Promotion' - to provide an opportunity for APEC trade promotion officials to exchange experiences for adapting themselves to the development of e-commerce and to help SMEs expand business by applying information technology; and to promote trade development in the APEC region. TPWG

3. Database/Network

- 'Operation of APEC Energy Database and Analysis' - to collect the energy data and relevant information from member economies to operate the APEC Energy Database (connected to the Internet), to prepare an Overview of the APEC Energy Situation, and to release the results including APEC energy statistics. EWG
- 'RISE' operates essentially as a network supported mechanism. The network participants are drawn mainly from the PECC and the PBEC and are generally senior executives from various industries, finance, trade, and infrastructure as well as development organisations, and their nominees. Expansion of network participation to a level that can sustain cooperation in multiple regional growth centres is a priority for RISE. GEI
- 'International Cooperation for Cleaner Production' - to search for all cleaner production databases in government, industry and NGO sectors, and make them available to all users. ISTWG
- 'Emerging Infectious Disease; Enhancing E coli 0157 surveillance' - to assist APEC economies to address a key pathogen related to food safety. ISTWG
- 'Cleaner Production Auditing System of APEC Member Economies' - to develop computer software to improve application and discrimination of cleaner production in industrial sectors in the APEC region. ISTWG
- 'Short-term Climate Forecasts and their Application for Social and Economic Development' - on-line database with local, regional, and global mapping. ISTWG
- 'APII Test-bed Project' - to build an effective Asia-Pacific Information Infrastructure (APII) and enhance interconnectivity and interoperability between test-beds. TELWG
- 'Comprehensive Linked Database on Mining and Energy-Related Opportunities and Regional Legal Framework within APEC Member Economies (Extension of Phase 3) - to develop and implement strategies for ANMED's ongoing management and plan for its financial independence into the future. EWG
- 'APEC Science and Technology Website (ASTWEB)' - to fund the serving of ASTWeb for 2001; and facilitate the flow of S&T information among APEC economies, through the use of a database of links to S&T websites and the discussion forum. ISTWG

4. Training/Technology Exchange

- RISE has led to the instigation of new training facilities and courses in Jiangmen, China, with support from the international business/private sector. Resources to address further training priorities are being sought including through supporting the local agencies in their outreach to prospective cooperation agencies. A concentrated large scale impact is expected to be achieved in 2001 and over the next few years. Initial impacts are highest in the local business/public sector; but extension to the private sector and particularly SMEs and community organisations is planned. RISE-fostered technology exchanges are still minor, such as in rice harvesting and milling; and in ICT and e-business. However implementation of the cooperative business and infrastructure partnership fostered by the

program can be expected to progressively increase the range and rate of technology transfer and application. GEI

- 'Training on Cleaner Production for the Metal Finishing Industry in the APEC Member Economies' - to enhance environmental performance and productivity in the metal finishing industry. ISTWG
- 'Research Cooperation on Environmental Issues' - to better prepare for various geological phenomena including by setting up a seismic network. ISTWG
- 'EID: Infectious Disease, Surveillance, Outbreak Response, Research and Training' - to assess the telecommunications needs APEC economies must have to support their EID surveillance and response; to identify an organisational mechanism to effectively coordinate APEC's EID activities in Asia; to foster enhancement of EID surveillance through coordination of protocols, standards and technical methods; to document and improve regional diagnostic laboratory capabilities; to document and improve regional capabilities for response; to improve relevant regional telecommunications, information management and information dissemination capabilities; and to improve research and training. ISTWG
- 'Emerging Infectious Diseases: Enhanced Use of Communications to Strengthen Surveillance and Control of New Infections in APEC' - to enhance awareness of the emerging infectious diseases and share information and take collaborative action against such diseases in the APEC region. ISTWG
- 'Training on Cleaner Production in the Textile Dyeing and Finishing Industry in APEC Member Economies' - to offer comprehensive training to the textile dyeing and finishing industry on various cleaner production technologies. ISTWG
- 'APEC Master of Sustainable Development Program' - to enhance the professional capacities, technical skills and knowledge-base of middle-to-senior level managers responsible for environmental management and policy development in the Asia-Pacific region. HRDWG
- 'Training for Sustainable Development in the Tourism Industry' - to deter unscrupulous development, to be able to use effective and systematic methods for conservation and preservation, to reduce discord between related communities, and to achieve mutual cooperation in a stable manner. TWG
- 'APEC Marine Environment Training and Education Program' - to stimulate strategic thinking on marine environmental issues common to the APEC economies, and to assist APEC economies in effectively addressing marine environmental problems to promote sustainable development through finding appropriate technical solutions and in strengthening their institutional capacity in marine environmental management; to serve as an avenue to strengthen marine environmental cooperation and collaboration among marine environmental studies in the APEC region; and to promote technology transfer. MRCWG
- 'Strengthening the Capability of S&T Evaluation in the APEC Region' - to strengthen the capacity of S&T evaluation in the APEC region through training courses and networking; to provide valuable opportunities for dialogue and exchange of ideas so as to enhance regional co-operation; and

to help promote the transfer of feasible evaluation theories and methods from developed members to developing members. ISTWG

ANNEX 8

Guidance on Strengthening the Management of

APEC ECOTECH Activities

GUIDANCE ON STRENGTHENING THE MANAGEMENT OF APEC ECOTECH ACTIVITIES

Guidance to Fora and Project Overseers

1. Project proposals should state which of the six priorities listed in the *Manila Declaration* the project aims to serve and how. Activities that do not relate to any of the priorities should be exceptional and strongly justified.
2. Fora must ensure that the ECOTECH activities they propose and undertake are “goal-oriented with explicit objectives, milestones, and performance criteria” or contribute directly to a priority-wide framework that meets these requirements.
3. Activities should be highly focused and results-oriented. When process-oriented activities (workshops, surveys, reports, etc.) are still considered useful, the project application should clearly indicate how the results will be used to achieve focused, action-oriented outcomes, including how they will be factored into the forum’s collective work program (including follow-up ECOTECH work) and members’ IAPs.
4. Each forum that proposes ECOTECH activities is responsible for ensuring that it does not duplicate its own past, present or planned activities or those of other fora. Close and collegial coordination with other APEC fora is required to achieve this aim. Ambiguous situations may be referred to the ESC for advice on how best to achieve APEC-wide coordination.
5. Fora should strive for balance among the economies that organize and oversee ECOTECH activities, and should develop projects that have the active participation of a large number of economies. Fora are reminded that funding for government officials’ travel is only available in well-justified exceptional cases.
6. Fora are encouraged to share their own experiences of managing ECOTECH activities—successful and unsuccessful—and lessons learned with the ESC for dissemination to other fora.

Guidance for the BMC (formally the BAC)

7. The BMC is responsible for advising SOM on budgetary matters and those relating to management coordination among APEC fora, and therefore shares in the responsibility for implementing the *Manila Declaration*.
8. BMC’s review of applications for APEC-funded projects is a critical step in this process. In general, a more discerning approach is needed to minimise the kinds of problems identified by the evaluation of ECOTECH activities.
9. BMC should take into account the guidance contained herein in addition to the guidelines already established for reviewing project applications. In

general, review of an activity's results-orientation is as important as its compliance with established financial procedures.

10. The BMC representative of the economy proposing a project should be prepared to explain and defend the project in the BMC . This will enable the relevant APEC Secretariat director to provide independent advice on the project's merits and thereby remove a conflict of interest inherent in the *status quo*. (See paragraph 13.)

Guidance for the APEC Secretariat

11. The APEC Secretariat can provide valuable support to APEC fora that develop and implement ECOTECH activities and to the BMC's review of their merits.
12. In its consultation with project proponents and in the advice it provides to the BMC , the APEC Secretariat should be authorized and encouraged to comment on any aspect of a project it feels competent to address. For example, it should comment on issues of duplication, results-orientation or others noted above, as well as on financial procedures.
13. It is important in discharging this function that program directors should serve the APEC process as a whole, and not be influenced by the interests of any particular forum.
14. To improve coordination of ECOTECH activities, the APEC Secretariat should also make full use of its information-sharing role and exploit the capabilities of its new project database.

Guidance for Enhancing Business/Private Sector Involvement in ECOTECH Activities

15. Fora could invite business people, especially representatives from ABAC and regional trade and industry associations, to attend future meetings for policy dialogue on business recommendations relevant to the forum's ECOTECH agenda. This could include careful review of the relevant ABAC recommendations.
16. Fora could work together with business/private sector representatives to set priorities and develop collective work plans for the fora. They could review the justification for any elements of the plans that are not relevant to business needs and priorities.
17. Fora could seek to involve the business/private sector in all stages of the ECOTECH project cycle. This could include inviting business/private sector proposals for specific projects to realise the collective work plans; soliciting and taking into account business/private sector feedback on projects proposed by member economies; joint development of projects; inviting active business/private sector participation in project execution; seeking business/private sector representatives' evaluation of completed projects; and ensuring that such evaluations are fed back into the project development process. Once established, ABAC's Partnership for Equitable Growth could be one vehicle for facilitating such public-business/private sector collaboration.

18. Fora could invite business/private sector support—financial, in-kind or technical—for future cooperatively developed projects or those already in the pipeline that business considers relevant to its needs.
19. Each forum could consider how it could contribute to cross-cutting focused outcomes developed in collaboration with the business/private sector and involving other APEC fora.
20. Participation of the business/private sector will be in accordance with the existing Consolidated Guidelines on Non-Member Participation.

ANNEX 9

ECOTECH Action Plan Template

ECOTECH ACTION PLAN
Human Resources Development

Common Policy Concepts	Actions	
	Individual	Cooperative
a. Providing a basic education		
b. Analysing the regional labor market to allow sound forecasting of trends and needs in HRD		
c. Increasing the supply and enhancing the quality of managers, entrepreneurs, scientists and educators/trainers		
d. Reducing skills deficiencies and unemployment by designing training programs for applications at all stages of a person's working life		
e. Improving the quality of curricula, teaching methods and instructional materials for managers and other workers		
f. Increasing opportunities for people seeking to gain skills		
g. Preparing organisations and individuals to remain productive in the face of rapid economic and technological changes		
h. Promoting HRD toward the liberalisation and facilitation of trade and investment		

ANNEX 10

Glossary

GLOSSARY

ABAC	APEC Business Advisory Council
APCIC	Asia-Pacific Chemical Industry Coalition
APEC	Asia-Pacific Economic Cooperation
APIAN	APEC International Assessment Network
ASTIC	APEC Agenda for Science and Technology Industry Cooperation into the 21 st Century
ATCWG	Agriculture Technical Cooperation Working Group
CBN	Capacity Building Network
CCS	Core Characteristics Survey
CEP	Consumer Education and Protection
CEPI	Consumer Education and Protection Initiative
CPC	Common Policy Concepts
CTI	Committee on Trade and Investment
CTI	Committee on Trade and Investment
EAP	ECOTECH Action Plan
EBN	Energy Business Network
EC	Economic Committee
ECOTECH	Economic and Technical Cooperation
EDNET	Education Network
e-IAP	Electronic Individual Action Plan
EID	Emerging Infectious Diseases
ESC	ECOTECH Sub-Committee of the SOM
EVSL	Early Voluntary Sectoral Liberalization
EWG	Energy Working Group
FDC	Foundation for Development Cooperation
FEEEP	Impact of Economic Growth and Expanding Population on Food, Energy, and Environment
FWG	Fisheries Working Group
GEI	Group on Economic Infrastructure
GIS	General Information System
GPS	Global Position System
GSTAB	Gender Science and Technology Advisory Board
HCB	Human Capacity Building
HRDWG	Human Resources Development Working Group
IAP	Individual Action Plan
ICT	Information and Communication Technology
ISO	International Organization for Standardization
ISTWG	Industrial Science and Technology Working Group
ITS	Intelligent Transport Systems
JIRCAS	Japan International Research Center for Agricultural Sciences

KBE	Knowledge-Based Economy
KCH	Knowledge Clearing House
KSN	Knowledge Sharing Network
LSPN	Labor and Social Protection Network
MRAM	Mutual Recognition Arrangement Management
MRCWG	Marine Resources Conservation Working Group
NGO	Non -Governmental Organization
OAA	Osaka Action Agenda
OECD	Organization for Economic Cooperation and Development
PATA	Pacific Asia Travel Association
PBEC	Pacific Basin Economic Council
PECC	Pacific Economic Cooperation Council
QMS	Quality Management Systems
RGC	Regional Growth Centre
RISE	Regional Integration for Sustainable Economies
S&T	Science & Technology
SCSC	Standards and Conformance
SMEs	Small and Medium-sized Enterprises
SMEWG	Small and Medium-sized Enterprises Working Group
SOM	Senior Officials' Meeting
SPAN	APEC Integration Plan of Action for SME Development
STIPs	science and technology industrial parks
TELWG	Telecommunications and Information Working Group
TIDWG	Trade and Investment Database Working Group
TILF	Trade and Investment Liberalisation and Facilitation
TPO	Trade Promotion Organizations
TPTWG	Transportation Working Group
TPWG	Trade Promotion Working Group
TWG	Tourism Working Group
WTTC	World Travel and Tourism Council