

PROMOTING ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

I. STUDY / RESEARCH / REPORT / PUBLICATION

APEC Forum Lead Agency and involvement of other APEC fora (if any)	Activity	Description of Activity	Status/ Timeframe	Business sector Inputs (if any)	Expected Outcome (including 1998 “deliverables”) and Expected Benefits and Beneficiaries, (if impact on business, note if large or SMEs)
1. EWG Mr. Andre W van Rest, Office of Energy Efficiency and Renewable Energy, US Department of Energy. Tel: 1-202 586 9793 Fax: 1-202 586 1605 e-mail: andre.vanrest@hq.doe.gov	Overview of Trade Flows of Energy-Using Products between APEC Member Economies <i>* Also contributes to Priority VI</i>	To examine the trade flow of eight energy-using appliances/equipment between APEC member economies. It is expected that this information will help the EWG identify priorities for its work program for cooperation on energy standards.	Ongoing. The project report will be available in the second half of 1998.	Business sector has been involved in the implementation of the project.	The aim of the project is to lay the basis for cooperation on energy standards and to facilitate trade in electrical products through the acceptance of energy testing standards in the exporting economy. Currently exporters are required to separately test their e products to ensure they comply with the standards of each importing economy.
2. EWG Dr. Gil Winstanley International Energy Division Natural Resources Canada Tel: 1-613-996-2993, Fax: 1-613-995-5576	Study on Environmentally Sound Infrastructure in APEC Electricity Sectors <i>* Also contribute to Priority VI</i>	The project is to ensure that environmental soundness and efficiency are built into the APEC region’s energy infrastructure as new capacity additions are made and aims to improve the implementation mechanisms for environmental/energy policies consistent with the liberalisation of electricity markets	The initial study was completed in 1997, but the project is continuing	Business sector has been involved in the implementation of the project	In August 1997, Energy Ministers directed the EWG to develop a work program to advance the recommendations of a consultancy study on environmentally sound power infrastructure. A work program will be presented to Ministers in Okinawa in Oct 1998. The study’s recommendations are designed to assist the development and implementation by member economies of policies, which will assist the development by private investors of environmentally sound energy infrastructure.

<p>3. ISTWG</p> <p>Mr Randy Yamada US-Asia Environmental Partnership Tel: 1 202 712 1699 Fax: 1-202 2163379</p>	<p>Use of Industrial Environmental Performance Indicators by APEC economies to set environmental improvement objectives and track progress</p> <p>(14.C.5.03)</p> <p><i>*Also contributes to Priority IV and V</i></p>	<p>To explore the possibility of creating APEC benchmarks for environmental performance of key industry sectors</p>	<p>November 1998: a conference is schedule on the subject at which participating economies will present the results of their studies and efforts under the project; follow-up activities planned.</p>	<p>Industry involved both in planning, implementing and a customer of the information developed.</p>	<p>Improvement of tools to measure and assess the environmental performance of industries.</p>
<p>4. ISTWG</p> <p>Mr Shinya Wakimoto Agency of Industrial Science and Technologies, MITI, Japan Tel: 81-3-3501-6011 Fax: 81-3-3580-8025</p>	<p>Acid Rain Monitoring System</p> <p>(14.C.5.06)</p> <p><i>*Also contributes to Priority V</i></p>	<p>Study on development of sensors for measuring the primary components of acid rain. Study on prediction model. Study on development of automatic monitoring system.</p>	<p>Ongoing('96:preliminary study; '97:development of system; '98:field test; '99:networking; 2001:evaluation)</p>		<p>Development of an on-site advanced acid rain monitoring system.</p>
<p>5. ISTWG</p> <p>Dr Sang Ki Rhee Korea Research Institute of Bioscience and Biotechnology, Korea Tel: 82-42-860-4005 Fax: 82-42-860-4592</p>	<p>APEC Joint Research on Bio-diversity and its Bioconversion</p> <p>(14.C.5.07)</p> <p><i>*Also contributes to Priority V</i></p>	<p>To identify and initiate joint research projects, symposia on the subject</p>	<p>Ongoing (April 1996: a symposium and workshop were held, Dec. 1998: completion of the project)</p>		<p>Enhancement of understanding and cooperation in the field of bio-diversity.</p>

<p>6. ISTWG</p> <p>Dr Hung-Tack Huh, Korea Ocean Research & Development Institute Tel: 82 345 400 6201 Fax: 82 345 408 5934</p>	<p>APEC Joint Research on Marine Environment (14.C.5.08)</p>	<p>A training workshop on trace metals, focusing on sampling and analytical techniques.</p>	<p>Dec '98: Completion of the project</p>		<p>Improved capabilities for analysis and assessment of marine environmental problem and improved monitoring programmes thereof.</p>
<p>7. ISTWG</p> <p>Mr Hiroshi Fujita R&D Bureau Science & Technology Agency, Japan Tel: 81-3 -3581-1715 Fax: 81-3-3501-3683 MrMasato Nakmura Science & Technology Agency, Japan Tel: 81-3-3580-6561 Fax: 81-3-3581-7442</p>	<p>Research Cooperation on Environmental Issues (14.C.5.12) <i>*Also contributes to Priority V</i></p>	<p>Research on Understanding Earth Phenomena using Earth Observation Data from space. Seminar on Earth Observation Information Network (EOIN) Dynamics of Earth' Interior</p>	<p>Ongoing Mar 1997: APEC Seminar on Earth Observation for users. Dec 1997: WS on Global Cooperation of Seismic Networks</p>		<p>A workshop on global cooperation of Seismic network and enhanced understanding of the Earth phenomena and pursuing of a sustainable development.</p>
<p>8. ISTWG</p> <p>Micahel Sharpe, Senior Programme Officer Labaratory Centre for Disease Control Health Canada Tel:1-613-954-3196 Fax: 1-613-952-8286</p>	<p>APEC Emerging Infectious Disease (14.C 5.13)</p>	<p>Development of an APEC action plan on emerging diseases(EID) towards (1) public health systems development, disease outbreak responsedisease prevention and control, and (2) advancing scientific knowledge in this area</p>	<p>An action plan for EID was completed in March 1998</p>	<p>Active participation is expected from business sector</p>	<p>The project ant its results will help to reduce human and economic burden from emerging infectious diseases</p>

<p>9. ISTWG</p> <p>Dr Melinda Moore Centers for Disease Control and Prevention USA Tel: 1 770 488 7231 Fax: 1 770 448 7742</p>	<p>Emerging Infectious Disease; Enhancing E coli 0157 surveillance (Food Safety)</p> <p>(14.C.5.22)</p>	<p>Clinical and laboratory surveillance, outbreak early warning, exchange and archiving of strains, evaluation of diarrhea diagnosis algorithms.</p>	<p>Ongoing</p>	<p>Health professionals and health- related businesses</p>	<p>The project addresses a key pathogen related to food safety and increases the capacity of APEC economies to react appropriately and quickly.</p>
<p>10. TWG</p> <p>Mr Robert Sowman Ministry of Commerce New Zealand Tel: 64 4 499 3670 Fax: 64 4 472 0030</p>	<p>Promote best practice models for sustainable development in the APEC region</p> <p><i>* Also contributes to Priority I.</i></p>	<p>Compile and publish tourism and environmental best practice case studies in APEC economies.</p>	<p>Completed in 1997. To explore edit a second electronic version in 1998.</p>	<p>In cooperation with the private sector.</p>	<p>To promote examples of best practices, sharing information and improving environmental cooperation.</p>
<p>11. TWG</p> <p>Dr Michael J Hatton APEC TWG Sustainable Tourism Project 444 Broadway Ave. Toronto, Ontario Canada M4G 2R1 Tel: 1 416 421 0848 Fax: 1 416 421 6855</p>	<p>Promote best practice models for Sustainable tourism development and local community involvement</p>	<p>Compile and produce a hard copy publication and a web site on the best practice models on tourism activities which are integrated with local community participation and which are environmentally and socially sustainable</p>	<p>Commenced in 1998</p>	<p>In cooperation with the private sector</p>	<p>To promote examples of sustainable tourism projects and activities where local communities can benefit.</p>
<p>12. TPT WG</p> <p>George D. Esguerra, Transport Planning Service, Philippines. Fax. 63-2-727-1703</p>	<p>Oil Spills Preparedness and Response</p>	<p>To publish an inventory on oil spills preparedness and response arrangement in the APEC region. To develop sub-regional cooperative quick response contingency plans for oil spills.</p>	<p>Inventory has been distributed at the 13th TPT-WG meeting and is available at the APEC website.</p>		<p>Dissemination of a complete inventory and development of quick response contingency plans for oil spills.</p>

<p>13. Economic Committee, in conjunction with the Task Force on Food, Energy Working Group and Senior Environment Officials</p> <p>Dr John M Curtis, Chair, Economic Committee, Department of Foreign Affairs and International Trade, Canada Tel: 1-613- 992-7776 Fax: 1-613- 992-4695</p>	<p>Study of “The Impact of Economic Growth and Expanding Population on Food, Energy and the Environment”</p>	<p>Analytical study of these interlinked issues and preparation of a report to APEC Economic Leaders proposing options for joint activities.</p>	<p>A detailed report will be presented to Leaders in 1998</p>	<p>Business was involved in the 1997 FEEEP Symposium and business sector views are reflected in the development of the report to Leaders</p>	<p>1998 Report to Leaders on the conclusions of the study and presentation of possible joint activities to be undertaken by APEC.</p>
<p>14. Economic Committee</p> <p>Mr Dave Black, Environment Canada. Tel: 1-819- 997-1158 Fax: 1-819- 997-0709</p>	<p>Economic Instruments for Environmental Protection</p>	<p>Survey of APEC member economies to gather factual information on the use of economic instruments for environmental protection</p>	<p>Study completed; publication in March 1998</p>		<p>1998 - Results of the Survey were published in March 1998. Information on the use of economic instruments will benefit policy-makers.</p>
<p>15. PLG SME</p> <p>Luisa Montes. Finance Director. Mexican Ministry of the Environment, Natural Resources and Fisheries. Mexico. Tel: 52-5- 628-0845 Fax: 52-5- 628-0649</p>	<p>Eco-efficiency in the Small and Medium Enterprises</p>	<p>To analyze the environmental regulatory framework developed in a group of APEC economies, the macroeconomic variables, economic development and industrial model and develop a “best practices” manual</p>	<p>Publication of the “best practices “ manual is in the final stages of preparation. Final seminar and presentation of publication on Eco-efficiency in SMEs to be given in Mexico City 19-20 March 1998. PROJECT COMPLETED</p>		<p>Provide assistance to the SMEs in the APEC region in reflecting environmental concerns and requirements.</p>

<p>16. SEOM</p> <p>United States in cooperation with the Transportation Working Group</p>	<p>Research and a seminar on reducing lead and other vehicular emissions</p>	<p>One of the Action Programs from the Program of Action for Sustainable Cities endorsed by Environment Ministers</p>	<p>Progress to be confirmed</p> <p>Initiative was endorsed by Environment Ministers in June 1997</p>		
<p>17. SEOM</p> <p>U.S.A.</p>	<p>Guide to phasing lead out of gasoline</p>	<p>“Implementors’ Guide to Phasing Lead Out of Gasoline “, a tool that can be used by a country once the political decision has been made to phase out leaded gasoline.</p> <p>The guide assists such countries in addressing a range of issues, from designing a feasible lead phase-out schedule to developing a list of priority activities.</p>	<p>The guide will be available in October 1998, and workshops based on it will be held in 1999.</p>		<ul style="list-style-type: none"> • “Implementors’ Guide to Phasing Lead Out of Gasoline” will be available in October 1998.

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II. WORKSHOP / SYMPOSIUM

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1. EWG Mr. Tomas Astorga, GEMEED, Santiago, Chile. Tel: 56-2-696-7804 Fax: 56-2-695-6935 e-mail: gemeed@revna.cl	Environmental Cooperation Workshops for Sustainable Development of Mining Activities	The aim of the workshops aim is to review the environmental impact of mining activities in APEC economies, the introduction of, and development of, environmental protection policies, environmental standards, and the techniques to prevent mine/processing pollution.	Ongoing. The second workshop is scheduled for end Sept. 1998 to further advance the theme.	Business sector has been involved in the workshops	The workshop will discuss best practices in mining activities, clean technology for mining activities, and international regulations against the background of sustainable development in minerals and metals.
2. FWG Mr. Glenn Hurry, Dept. of Primary Industries and Energy, Canberra, Tel: 61-2-6272-5037 Fax: 61-2-6272-4215	APEC Aquaculture Forum	The APEC Aquaculture Forum was held on 8 June 1998 in conjunction with the ninth meeting of the FWG in Taipei, and involved industry and academics. The Forum provided a venue where economies with an investment and interest in the sustainable long-term development and growth of aquaculture could share information about new technologies, and discuss and plan initiatives that will progress and improve the industry.	Held in June '98 in conjunction with FWG 9.	Private sector were invited to participate.	The Forum aimed to promote the sustainable development of aquaculture and contribute to solve common fisheries resource management problems and aquaculture disease control. Improvement in aquaculture practices and knowledge will enhance prospects for sustainable production and long-term trade performance in fisheries products.

<p>3. HRD WG (BMN)</p> <p>Dr. Rikki Kersten, Director, Research Institute for Asia and the Pacific, University of Sydney, GPO Box 7068, Sydney, NSW, Australia 2001. Tel: 61-2-9290-3233 Fax: 61-2-9262-4819 e-mail: R.Kersten@riap.biz.usyd.edu.au</p>	<p>Human Resources Management for Cleaner Production Needs in APEC</p>	<p>To promote regional awareness of human resource management skills and knowledge required in the overall implementation of effective Cleaner Production (CP) principles in the food industry sector among APEC economies.</p> <p>To produce teaching and training materials that will develop the human resource management skills needs in CP processes, including skills that are aimed at developing and implementing appropriate technological solutions. To introduce a pilot regional training program aimed at improving the CP awareness and management skills of middle and senior level personnel in the food industry sector among APEC member economies. To establish and develop a network of Human Resources Managers in CP needs in APEC to share information and appropriate technologies, and increase the level of cooperation to improve and to encourage cleaner production needs methods, management system and best practice.</p>	<p>Stage I: Completed Stage II: Draft and finalize outlines and templates for project outputs (Jan.-March 98); Develop project outputs (Jan.-April 98); Commence plans for pilot training workshop and symposium (Feb.-May 98). Stage III: Produce draft case studies, resource materials and training manuals (May 98); Conduct pilot training workshop and symposium – Chinese Taipei (May-June 98); Evaluation of research and training materials by experts and focus groups (May-July 98); Review/revise training materials and package materials – APEC training program (July-Sept. 98); Publication of training materials and resourcing APEC networks and industry (November 98); Publication and dissemination of project report (November 98)</p>	<p>Yes</p>	<p>Develop teaching and training materials. To conduct workshop/symposium with industry, government and education experts to trial and assess teaching and training materials produced (pilot training program). Two reports will be published and disseminated through various for a. First report includes survey findings and case studies. The second report summarizes the workshop proceedings and presents recommendations for Cleaner Production Needs. Establishment of a network of CP specialists.</p>
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<p>4. ISTWG</p> <p>Mr William Kirksey Environmental Technology Evaluation Center USA Tel: 1 202 842 0555 Fax: 1 202 682 0612</p>	<p>APEC Environmental Technology Verification Workshop (14.C.5.01)</p> <p><i>*Also contributes to Priorities IV and V</i></p>	<p>Workshop and follow-up activities among APEC economies to develop a coordinated approach to verify the performance of environmental technology.</p>	<p>Workshop Held in August 1998; other activities planned</p>	<p>Participation by companies and NGOs</p>	<p>Development of key criteria and methods that will permit comparative analysis of environmental technology among APEC economies.</p>
<p>5. ISTWG</p> <p>Dr Jih-Shing Yang, Union Chemical Laboratories, ITRI, Chinese Taipei Tel: 886 3 573 2622 Fax: 886 3 573 2349</p>	<p>Enhanced implementation of ISO 14001 Environmental Management System for APEC economies (14.C.5.14)</p>	<p>To develop information and tools to promote implementation of ISO 14001 EMS.</p>	<p>Sep '98: Workshop Early '99: technical assistance</p>		<p>Workshop and technical assistance will help to produce a core group of public and private sectoral individuals with expertise on SME 14001 EMS.</p>
<p>6. MRC</p> <p>Mr. Sham Chun-hung, Joseph, Agriculture & Fisheries Department, Hong Kong. Tel: 852-2873-8326 Fax: 852-2814-0018</p>	<p>APEC Workshop on Impact of Destructive Fishing Practice on the Marine Environment <i>* Also contribute to Priorities I and IV</i></p>	<p>To address incidence and impacts of destructive fishing practices, the recommendation on was developed <u>on</u> legislative and regulatory affairs. The project came out of a suggestion on the need for defining areas of action and development of a concrete action for promotion of environmentally friendly fishing practices and protection of coral reef environments.</p>	<p>Workshop was held from 16 to 18 December 1997. The report of the workshop will be available by the end of 1998.</p>	<p>Business sector is involved in the implementatio n of the project</p>	<p>The project aims at facilitating cooperation among APEC member economies in addressing the impacts of destructive fishing practices, especially cyanide fishing, on the marine environment. It will benefit both private and public sectors, including government departments, scientific agencies and environmental groups, fishermen and fish traders.</p>

<p>7. MRC</p> <p>Ms. Maureen Walker Office of Oceans Affairs, State Department, USA Tel: 1-202-647-9098, Fax: 1-202-647-9099</p>	<p>Workshop on Decommissioning of Offshore Oil and Gas Platforms <i>* Also contribute to Priorities I and IV</i></p>	<p>To exchange information on decommissioning of disused and abandoned offshore platforms and the potential for new uses for such structures, as artificial reefs.</p>	<p>The two-day workshop is in preparation</p> <p>The workshop is scheduled in October 27-29, 1998</p>	<p>Business sector will be involved in the implementatio n of the project</p>	<p>The relevant government agencies and business sector will benefit from the project by addressing the issues involved in platform decommissioning and alternate beneficial uses of platforms, and regulatory requirements concerning platform decommissioning, changes in technology, the cost/benefit of available alternatives and other uses for platforms such as the Rigs to reefs program.</p>
<p>8. MRC</p> <p>Mr. Garry Reynolds, Water Pollution Prevention Section, Environment Protection Group, Environment Australia Tel: 61-2-6274-1684 Fax: 61-2-6274-1640</p>	<p>Working Together: Regional Workshop on Preventing Maritime Accidents and Pollution in the Asia-Pacific Region <i>* Also contribute to Priority IV</i></p>	<p>Review current initiatives and programs which address maritime pollution and accidents in the region, identify issues of mutual concern in the region and seek common approaches to address these issues. A strategy and action plan to strengthen protection of the marine environment from ship and combat marine pollution were developed.</p>	<p>The workshop was held from 20 to 23 April, 1998 and a report of the workshop will be published in 1998.</p>	<p>Business sector, NGOs and community will be involved in the project implementa- tion</p>	<p>The immediate beneficiaries will be government agencies with responsibility for coastal and maritime environments and trade. The benefit will also extend to government bodies responsible for public health and safety, and fisheries management agencies, cruise tourism bodies, groups responsible for port infrastructure and ship construction and operation, as well as public and private sector organizations concerned with industries such as oil supply.</p>

<p>9. MRC</p> <p>Ms. Susan Ware, Office of International Affairs, National Oceanic and Atmospheric Administration, USA Tel: 1-202-482-6196 Fax: 1-202-482-4307</p>	<p>Workshop on Regional Implementation of the Global Plan of Action (GPA) for the Protection of the Marine Environment from Land-Based Sources of Pollution</p> <p><i>* Also contribute to Priority IV</i></p>	<p>To discuss the application of the GPA in the Asia Pacific area for the purpose of developing regional and subregional programs of action. To provide economies with a "tool kit" for implementing their domestic programs.</p>	<p>The workshop was held from 14 to 16 April, 1998 and its proceedings will be published in 1998.</p>		<p>The workshop focused on the methodological approaches contained in Chapters 2 & 3 of the GPA and explored possible initial steps related to the Global Clearing House call for in Chapter 4. It is hoped that a common approach would emerge and the approach will then be implemented. The immediate beneficiaries of the project will be government agencies with responsibility for coastal environments, economic development or activities in coastal areas and public health and safety. Further benefits will be shared by fisheries management agencies, public works, as well as the private sector and NGOs.</p>
<p>10. ATC</p> <p>Dr Ku Te-Yeh Food and Agriculture Department, Council of Agriculture Chinese Taipei Tel: 886-2- 312-6980 Fax: 886-2- 312-5812 Email: susan@mail.coa.gov.tw</p>	<p>Conservation of Plant and Animal Genetic Resources</p>	<p>Collaboration on collection of information on plant and animal genetic resources; development of genetic resource databases; exchange and safe storage of the genetic resource materials</p>	<p>Second workshop focusing on animal genetic resources will be held on 3-6 Nov. '98 in Chinese Taipei.</p>		<p>The activity will:</p> <ul style="list-style-type: none"> - identify APEC-wide needs for genetic resources management based on the genetic resource database of individual member economies - establish an APEC information network for the exchange of genetic resources related information; - develop APEC networks and channels for exchange of genetic resource materials <p>The work will benefit the public sector and also business.</p>

11. SEOM Japan in cooperation with HRD-WG and Education Forum Network	APEC Symposium on environmental education for sustainable cities	A symposium will be convened to share ideas and experiences on environmental education related to urban issues, especially the way toward circulation based society and improvement of living environment. Exchanging views between environmental engineers and educators.	Endorsed by Environment Ministers in June 1997. To be held on 20-21 September 1998 in Sendai, Japan	Business sector will be invited as audience	<ul style="list-style-type: none"> • Raise awareness in member economies • Provide trainers with new tools for incorporating environmental principles into infrastructure development and material flow
12. SEOM Chinese Taipei in cooperation with the Economic Committee	Workshop on Economic Instruments toward Sustainable Cities in APEC	Seminar to provide an opportunity to discuss best practices and exchange information on economic instruments being used in APEC economies to enhance environmental protection of cities.	Held in Chinese Taipei 17 – 19 December 1997 Initiative was endorsed by Environment Ministers in June 1997		<ul style="list-style-type: none"> • Help increase knowledge about economic instruments • Help to demystify the use of economic instruments in APEC economies and outline the benefits of their use.
13. SEOM Mexico and Canada in cooperation with the HRD WG	Seminar on the poorest and most disadvantaged sectors of the urban population	A seminar will be convened to share ideas and experiences on APEC member economy programs and initiatives that promote social and economic development for the most disadvantaged sectors in the urban centres	To be held in Mexico City (to be confirmed) Disseminate widely		<ul style="list-style-type: none"> • Provide information about the issues and problems faced by the poorest and most disadvantaged of the urban population • Raise awareness and share solutions for improving the situation of the poorest and most disadvantaged sectors of the urban population
14. SEOM China	Seminar on environment and economic policies held in Beijing	First formal activity of the China APEC Environmental Protection Centre established as an initiative of President Jiang Zemin – the seminar discussed pollution control and environmental protection, indicators for sustainable cities.	Held in Beijing in 18-20 September 1997 Initiative was endorsed by Environment Ministers in June 1997		<ul style="list-style-type: none"> • Raised the issues on pollution control and environmental protection in cities in APEC • Helped to launch the Chinese Centre for Environmental Protection

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III. DATABASE / NETWORK

APEC Forum Lead Agency and involvement of other APEC fora (if any)	Activity	Description of Activity	Status/ Timeframe	Business sector Inputs (if any)	Expected Outcome (including 1998 “deliverables”) and Expected Benefits and Beneficiaries, (if impact on business, note if large or SMEs)
1. EWG Mr. Andre W van Rest, Office of Energy Efficiency and Renewable Energy, US Dept of Energy. Tel: 1-202- 586-9793 Fax: 1-202- 586-1605 e-mail: andre.vanrest@hq.doe.gov	Energy Benchmark System: Development and Implementation <i>* Also contributes to priority IV.</i>	To institute a regularly scheduled, uniform system for energy benchmark data collection and dissemination for use by APEC member economies to improve the energy efficiency of commercial buildings and industries	On-going	Business/private sector and non-governmental institutions will be involved during the collection of the benchmark data	The report on the results of the project with recommendations for refinement will be available in late 1998. The final product will be an updated database that can be made available on diskette and on the internet (World Wide Web).
2. HRD WG (BMN) Mr. Rick Schulberg. Oregon Economic Development Dept., USA. Tel: 1-503-986-0199 Fax: 1-503-986-0256 Email:rick.j.schulberg@State.or.us	APEC Sustainable Development Training and Information Network	Assessment of sustainable development information and training needs, priorities and available resources of APEC members; and through a conference in Portland; Oregon, US, to then consider recommendations for the establishment of an APEC sustainable development training and information network.	Phase II (Implementation) in 1998. A support office has been established in Portland, Oregon, and a home page has been put up since September 1997. An advisory group has been formed with the participation of all members.	Yes	An APEC Sustainable & Development Training and Information Network

<p>3. HRD WG (BMN)</p> <p>Mr. Leslie Williams, The Research Institute for Asia Pacific, Sydney, Australia. Tel: 61-2-9290 3222 Fax: 61-2-9262 4849 Email: L.Williams@Riap.biz.usyd.edu.au</p>	<p>Human Resources for Sustainable Development (Phase II)</p>	<p>To establish a sustainable development network to share information on education to promote academic collaboration in Asia Pacific region and to develop a continuing education program.</p>	<p>Phase II commenced in June 1996.</p> <p>Project coordinators continue to seek feedback on the draft APEC Master of Sustainable Development Course and liaise with tertiary institutions in the region to form a consortium to offer the course. A number of institutions have agreed to offer the course. Project has been transformed into a self-funded project with completion now targeted at 2000.</p>		<p>Phase II develops the “APEC Master of Sustainable Development Course” and a draft continuing education seminar curriculum (training program).</p>
<p>4. ISTWG</p> <p>Prof. Yim Jeongbin Institute of Molecular Biology and Genetics, Seoul National University, Korea</p> <p>Tel: 82-2-880-6702 Fax: 82-2-871-4315</p>	<p>Determination of Priority Needs for Molecular Biology and Biotechnology in APEC Economies</p> <p>(14.C.5.10)</p> <p><i>*Also contributes to Priority IV</i></p>	<p>To determine the priority concerns and needs for molecular biology and biotechnology development, and to define workable strategic framework and implementation plan</p>	<p>June 1998: 1st network meeting in Korea</p>		<p>Enhanced information exchange related to molecular biology and strengthened competency of scientists</p>

<p>5. ISTWG</p> <p>Prof Chen Kum, Acting Director, Commission for Int'l Cooperation Chinese Society for Sustainable Development China Tel/Fax: 8610625 8133</p>	<p>Cleaner production Auditing System of APEC member economies (14.C.5.15)</p>	<p>Development of Computer software to improve application and discrimination of cleaner production in industrial sectors in the APEC region.</p>	<p>To be completed in one year.</p>		<p>A software for CP audit and its detailed operational manual.</p>
<p>6. ISTWG</p> <p>Dr Ann Marie Kimble University of Washington USA Tel: 1 206 616 2949 Fax: 1 206 543 3964</p>	<p>APEC Telecommunications Network for emerging infections (14.C.5.21)</p>	<p>Provides internet-based information from the US National Library of Medicine and other key sites, a distance learning academic course on EIDS, and exchange of EID surveillance information.</p>	<p>Ongoing; website and listserv became operational in 1998; other activities planned.</p>	<p>Health professionals and health-related businesses</p>	<p>The EID Network will provide information needed to help monitor APEC economies monitor and deal quickly with emerging infectious diseases to help support the region's sustainable development.</p>
<p>7. ISTWG</p> <p>Dr Melinda Moore Centers for Disease Control and Prevention USA Tel: 1 770 488 7231 Fax: 1 770 448 7742</p>	<p>Emerging Infectious Diseases: Influenza Virus Surveillance Focused on the Rapid Identification of Newly Emerging Viruses (14.C.5.23)</p>	<p>Network to strengthen laboratory based surveillance and regional networking to rapidly detect new influenza viruses not previously identified in humans and to develop pandemic response plans.</p>	<p>Ongoing</p>	<p>Health professionals and health-related businesses</p>	<p>Support networking among APEC economies to strengthen the ability to respond to new influenza viruses.</p>
<p>8. MRC</p> <p>Dr. John S MacDonald, Chairman, MacDonald Dettwiler and Associates, Canada Tel: 1-604-231-2223 Fax: 1-604-273-9830</p>	<p>Ocean Research Network for the Pacific (ORNEP) <i>* Also contribute to Priority IV</i></p>	<p>The initiative will build a network of centres of excellence in ocean and coastal research and related technology to support the marine interests of the economies of the Pacific region.</p>	<p>Ongoing, This is a multi-year, self-financing project. The first-year operation was completed in 1997, and its second-year operation was endorsed and will be implemented in 1998.</p>	<p>Business sector and NGOs will be involved in the project implementation</p>	<p>Marine science and technology institutions across APEC will benefit through a sharing of talent, technology and funding to address major APEC challenges in sustaining its marine resources.</p>

<p>9. TELWG</p> <p>Yasunao Taketomi Min. of Posts and Telecommunications, Japan Tel: 81-3-3504-5602 Fax: 81-3-3503-0690 y-taketo@mpt.go.jp</p>	<p>Telework Manual</p>	<p>To develop a practical manual setting forth the advantages of telework, appropriate processes to follow when implementing a telework program, and related issues which need to be addressed in order to implement telework successfully.</p>	<p>On going (to be completed in 2000)</p>	<p>N/A</p>	<p>A manual will be prepared and distributed to each economy.</p>
<p>10. ATC</p> <p>Dr. Rogelio N. Concepcion, Director, Bureau of Soils and Water Management, Department of Agriculture Philippines Tel : 63-2-923-0433 Fax : 63-2-920-4318 Email: bswm@phil.gn.apc.org Coordination with Task Force on Food, Senior Environment Officials</p>	<p>Sustainable Agriculture</p>	<p>Identification of suitable mechanisms for information exchange; establishment of a network of experts and contacts</p>	<p>First workshop will be held on 28-30 Oct. 98 in Davao City, Philippines.</p>		<p>Establishment of an APEC information network to assist the development of practices which will promote sustainable agriculture. The public will be the beneficiaries as well as the farmers.</p>
<p>11. SEOM</p> <p>Canada in coordination with the HRD – APEC Sustainable Development Training & Information Network</p>	<p>APEC Urban Capacity Building Initiative</p>	<p>Establish an APEC Urban Capacity Building network and develop tools to help staff of public and private sector and other institutions involved in urban development of infrastructure</p>	<p>Networking Event in Bangkok in January 1999. Initiative was endorsed by Environment Ministers in June 97</p>	<p>Business sector will participate</p>	<ul style="list-style-type: none"> • Provide information and training on urban capacity building skills • Raise awareness in APEC member economies • Develop training approaches and tools for enhancing skills, knowledge and attitude of urban development practitioners.

12. SEOM Canada in cooperation with APEC fora	Compendium of Best Practices for Sustainable Urbanization	Collection of best practices from APEC members which was tabled at the Environment Ministerial Meeting in June 1997 and put on the website	Prepared for Ministerial Meeting June 1997		<ul style="list-style-type: none"> • Provide best practices information available on the website address: http://www.ec.gc.ca/env
13. SEOM United States in coordination with the APEC Sustainable Development Training and Information Network	Environmental Business Information System and Network	Setting up a business network to facilitate private sector access to environmental regulations and administrative procedures. To be done by the Sustainable Development Training and Information Network, University of Oregon	In progress Initiative was endorsed by Environment Ministers in June 1997	Business is being consulted	<ul style="list-style-type: none"> • Improve information about and access to environmental regulations and administrative procedures in APEC economies for the business sector.
14. SEOM Canada in cooperation with APEC Secretariat	APEC "Clean Cities" Internet Website	Environment Canada created a clean cities Internet website consisting of best practices on clean cities from member economies linked to the APEC homepage	Website was put up in June 1997 Initiative was endorsed by Environment Ministers in June 97	Business was consulted	<ul style="list-style-type: none"> • Disseminate information on practical solutions to urban environment problems • Provide information tool on sustainable cities for APEC website: http://www.cleancities.com

PROMOTING ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

IV. POLICY REFORM / STANDARDS HARMONIZATION

APEC Forum Lead Agency and involvement of other APEC fora (if any)	Activity	Description of Activity	Status/ Timeframe	Business sector Inputs (if any)	Expected Outcome (including 1998 “deliverables”) and Expected Benefits and Beneficiaries, (if impact on business, note if large or SMEs)
<p>1. EWG Mr. Iakao Isozaki Agency of Natural Resources and Energy, MITI, Japan Tel: 81-3-3501-6795 Fax: 81-3-3595-3056</p>	<p>Energy Efficiency Improvement Initiative <i>* Also contribute to priority IV.</i></p>	<p>Establish the basis for information exchange of energy efficiency in both data and technology area and to begin mutual review among member economies in energy efficiency area. The project will identify obstacles, objectives and measures to improve energy efficiency</p>	<p>Ongoing.</p>		<p>A report is currently being prepared for the consideration of Energy Ministers in Oct. 1998. A proposed ‘pledge and review’ framework is being developed for the endorsement of Energy Ministers. Member economies will benefit from the project through the exchange of information and options. This will result in improvements in energy efficiency and the adoption of environmentally friendly energy policies.</p>
<p>2. EWG Mr Frank Pool EE & C Authority PO Box 388 Wellington, New Zealand Tel:64-4470 2210 Fax: 64 4499 5330 E-mail: poolf@moc.govt.nz</p>	<p>Review of Energy Efficiency Test Standards and Regulations in APEC Member Economies <i>* Also contributes to priority IV.</i></p>	<p>Identify similarities and differences in regulating for energy efficiency between APEC member economies and to determine the reasons for these differences and whether they act as impediments to trade.</p>	<p>Ongoing. The project is scheduled to be completed in late 1999.</p>	<p>Business sector will be involved in the planning and implementation of the project</p>	<p>The project will help to reduce impediments to trade by establishing the basis for the direct comparison of outcomes of testing to different standards and reducing the need for multiple testing. As a result, trade in energy-using products will be promoted.</p>

<p>3. FWG</p> <p>Mr. Tony Battaglone, Dept of Primary Industries and Energy, Canberra. Tel: 61-2-6272-4570 Fax: 61-2-6272-4215</p>	<p>The Impact of Longline Fishing and a Review of Mitigation Measures</p>	<p>To assess the impact of longlining on the environment and analyse the effectiveness and costs of mitigation methods on bycatch.</p>	<p>Being reviewed in light of FAO work on bycatch.</p>		<p>If the project proceeds, it is anticipated that it will provide a better understanding of different longlining techniques employed within APEC economies. This would allow economies to compare and select best practice techniques, which could then be applied to different fisheries to suit the condition of that fishery. The Project is currently being reviewed in light of the FAO work on bycatch, to ensure that it does not overlap or duplicate the FAO work.</p>
<p>4. ISTWG</p> <p>Dr Phyllis Genter Yoshida U.S. Dept of Commerce Tel: 1-202-482-6814 Fax: 1-202-219-3310</p>	<p>APEC Cleaner Production Strategy (14.C.5.00) <i>*Also contributes to Priority V</i></p>	<p>An integrated set of projects that provide sector-based and cross- cutting information sharing and training for cleaner production technology.</p>	<p>In progress 1997: establish a task force, completed strategy and begin implementation of project; 1998: 11 projects underway, more planned</p>	<p>Industry involved in creating strategy and will help implement and benefit from projects</p>	<p>Adoption of innovative, cross-cutting policies and methods for cleaner production by APEC economies; reduction of pollution and strengthening of APEC's industrial capacity.</p>
<p>5. ISTWG</p> <p>Mr Ted MacDonald US Environmental Protection Agency USA Tel: 1 202 564 6114 Fax: 1 202 565 2411</p>	<p>Cleaner Production Initiative in the Electronics and Computer Service (14.C.5.02) <i>*Also contributes to Priorities IV and V</i></p>	<p>To pursue a dialogue between industry and government officials to explore cleaner production in the electronics and computer sector</p>	<p>June 1998: a conference was held; follow-up activities and more meetings planned for 1999.</p>	<p>Industry involved both in planning, implementing and as a customer of the information developed.</p>	<p>It will help to form a partnership between industry and government to promote information sharing on policies, practices and technologies for sustainable developments in the electronics and computer sector.</p>

<p>6. ISTWG</p> <p>Mr Mark Kasman US Environmental Protection Agency, USA Tel: 1202 564 6112 Fax: 1202 565 2411</p>	<p>Adoption and development of a multilingual environmental thesaurus system</p> <p>(14.C.5.17) <i>*Also contributes to Priority IV</i></p>	<p>Development of a standardized reference language for environmental terminology.</p>	<p>Project began in 1998; it requires two years to be completed.</p>	<p>Industry will use the results</p>	<p>Broadens an ongoing US-European effort to expand the development of an international thesaurus systems and standardized reference language for environmental technology.</p>
<p>7. MRC</p> <p>Mr. J Roderick Forbes, Dept. of Fisheries and Oceans, Institute of Ocean Sciences, Sidney, B.C, Canada. Tel: 1-250-363-6443 Fax: 1-250-363-6479</p>	<p>Management of Red Tide and Harmful Algal Blooms in the APEC Region (APEC MRT/HAB Project)</p> <p><i>* Also contribute to Priorities I and IV</i></p>	<p>To help each APEC economy develop a scientific and regulatory infrastructure sufficient to certify that its seafood is free from <u>the threat of</u> algal toxins, by developing the common analytical , detection methodology, and regulatory standards that are acceptable to all economies in the region. This project will also develop a set of guidelines for algal biotoxin management program to mitigate the seafood contamination of algal toxin and related economic impact.</p>	<p>On-going. This is a comprehensive five-year program starting from 1996 following a successful Red Tide Project</p>	<p>Business sector and non-governmental institutions will be involved in some activities of the project</p>	<p>Some of the activities of the project (meetings, seminars and training courses) were completed in 1996 and 1997, and others will be completed in either 1998 or later. The immediate beneficiaries of the project will be the scientists, government officials and the aquaculture industry who will be better able to respond to the threat from algal toxins and harmful algal blooms. The citizens of the APEC members and consumers of seafood products throughout the world are the ultimate beneficiaries.</p>

<p>8. MRC</p> <p>Dr.Gwo-Dong Roam, Bureau of Water Quality Protection, Environmental Protection Administration, Chinese Taipei, Tel: 886-2-2311 3197 Fax: 886-2-2</p>	<p>Ocean Model and Information System for APEC Region</p> <p><i>* Also contribute to Priorities I and IV</i></p>	<p>To develop useful ocean information systems for member economies, the project allows member economies to apply useful and friendly ocean information (i.e., satellite image, in situ data, ..etc.) to policy making for marine resources conservation. To address the need of coastal zone planning and management through information exchange, technology transfer and capability building, and developing ocean models to predict marine environmental changes</p>	<p>On-going . This is a five-year program starting from 1997</p> <ul style="list-style-type: none"> • The workshop was held in July 1998 • Established information exchange systems among economies and collected ocean models for marine resources conservation and sustainable development 	<p>Business sector and non-governmental institutions will be involved in some activities.</p>	<p>Some of the activities of the project (meetings, training workshops and studies) were completed in 1997, and others will be completed in either 1998 or later.</p> <p>The models and data bank produced as the results of the project will help the scientific communities and decision makers to better understand the situation and make suitable decisions to conserve and improve the marine environment.</p>
<p>9. Senior Environment Officials Meeting (SEOM)</p> <p>Canada in cooperation with Malaysia</p>	<p>Non- binding principles or guidelines for sustainable development of infrastructure</p>	<p>APEC members agreed to a set of guidelines and principles for sustainable development in infrastructure based on practical experiences for dissemination to APEC economies</p>	<p>Agreed to at the Environment Ministerial Meeting in Toronto 9-10 June 1997</p>	<p>Business forum held in conjunction with the Ministerial Meeting provided input to the guidelines</p>	<ul style="list-style-type: none"> • Provide guidance in integrating sustainable development principles into infrastructure to trainers and practitioners across the APEC region • Promote and monitor pilot projects to demonstrate successful application of these principles.
<p>10. SEOM</p> <p>Hong Kong, China in cooperation with the Economic Committee</p>	<p>Innovative Approaches to financing of sustainable infrastructure development</p>	<p>Program to examine and disseminate innovative approaches to financing sustainable infrastructure development and building planning, design, construction and operation</p>	<p>Decision paper circulated by Hong Kong, China</p> <p>Work progressing: Final report expected by end 1999 or early 2000.</p> <p>Initiative was endorsed by Environmental Ministers in June 1997</p>		<ul style="list-style-type: none"> • Provide information about new ways of sustainable infrastructure development financing. • Improve sustainability of APEC cities.

<p>11. SEOM Canada</p>	<p>Double the number of Local Agenda Cities by the Year 2003</p>	<p>Local Agenda 21 planning presents a practical framework for engaging stakeholders in community issues, while protecting local, regional and global ecosystems</p>	<p>By the Year 2003 Initiative was endorsed by Environment Ministers in June 1997</p>	<ul style="list-style-type: none"> • Raise awareness of the Local Agenda 21 Cities work and planning systems • Contribute to greater networking on environment protection issues among APEC cities
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PROMOTING ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

V. TRAINING / TECHNOLOGY EXCHANGE

APEC Forum Lead Agency and involvement of other APEC fora (if any)	Activity	Description of Activity	Status/ Timeframe	Business sector Inputs (if any)	Expected Outcome (including 1998 “deliverables”) and Expected Benefits and Beneficiaries, (if impact on business, note if large or SMEs)
1. ISTWG Sadiq Hasmain National Research Council of Canada Tel: 613-993-6040 Fax: 613-952-9907	Cleaner Production Technologies: A proposal for Innovation and Apprenticeship in Pollution Prevention (14.C.5.04)	To provide process or product innovation in pollution prevention to SMEs and to provide apprenticeship opportunities to future engines and scientists in this field	In preparation		Information sharing on the application of modulation and simulation for cleaner production
2. ISTWG Chic-sen Lin IDB, Ministry of Economic Affairs, Chinese Taipei, Tel: 886-2-703-2398 Fax: 886-2-704-2753	Training Course on Cleaner Production for Textile Dyeing and Finishing Industry in APEC member economies (14.C.5.05)	Comprehensive training of the APEC textile dyeing and finishing industry on various cleaner production technologies	Spring 1998: Training workshop 1998-1999: workshops in member economies Summer 1999: conference on the subject	Great participation is expected from business sectors	Enhanced Performance and productivity of APEC textile industry
3. ISTWG MrYoshikazu Goto MITI, Japan Tel: 81-3-3501-4665 Fax: 81-3-3580-6329	APEC Virtual Center for Environmental Technology Exchange (14.C.5.09) <i>*Also contributes to Priority V</i>	Establishing the APEC virtual center for environmental technology to promote APEC environmental technology exchange activities.	Ongoing (1996: survey, symposium, and prototype. 1997: virtual center in Japan in full-scale operation, 1998: workshops, and survey 2000: comprehensive review.		The virtual centre in Japan has been in operation since 1997. Australia and Chinese Taipei have plans to put their virtual centers into operation in 1998. Promote regional S&T cooperation and linkage of institutes in the field of environment. Contribute to the dissemination of technology concerning environmental protection in APEC.

<p>4. ISTWG</p> <p>Mr David T Y Wang Metal Industries Research and Developing Centre, Chinese Taipei Tel: 886 7 351 3121 Fax: 886 7 353 2758</p>	<p>Training course on cleaner production for the metal finishing industry in the APEC member economies</p> <p>(14.C.5.20)</p>	<p>Training on cleaner production technologies for the metal finishing industry.</p>	<p>Training course is scheduled for the spring of 1999.</p>		<p>Enhanced environmental performance and productivity in the metal finishing industry.</p>
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