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**EMERGING ISSUES AND DEVELOPMENTS AT THE REGIONAL LEVEL:
MANAGING GLOBALIZATION**

(Item 4 (b) of the provisional agenda)

**REPORT ON THE ASIAN AND PACIFIC CENTRE FOR
TRANSFER OF TECHNOLOGY**

SUMMARY

This report presents information on the activities of the Asian and Pacific Centre for Transfer of Technology (APCTT) and recommendations related to its programme of work. In 2002, the activities of the Centre were directed towards technology capacity-building, the promotion and management of innovation and subregional and regional networking to support the countries of the region in responding effectively to the challenges posed through integration into the new global economy. Programmes were organized based on the requirements of member countries in the five thrust areas of the Centre's programme of work. Efforts were made to strengthen the institutional framework, the financial base and personnel infrastructure of the Centre. APCTT considerably enlarged its working relationship with international organizations, national-level institutions and private sector organizations.

The substantive portions of the report of the Governing Board of APCTT on its seventeenth session, held at Hanoi on 31 October and 1 November 2002, are annexed to this document.

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I. ACTIVITIES OF THE ASIAN AND PACIFIC CENTRE FOR TRANSFER OF TECHNOLOGY

1. In fulfilment of its mandate, the Asian and Pacific Centre for Transfer of Technology (APCTT) has been promoting technology transfer, development, adaptation and application in the Asian and Pacific region, placing emphasis on the promotion and transfer of environmentally sound technologies to small and medium-sized enterprises (SMEs). APCTT activities in 2002 were directed towards technology capacity-building, the promotion and management of innovation and subregional and regional networking. The focus of the Centre's work was on five important thrust areas: (a) technology transfer support services for SMEs; (b) technology management and innovation; (c) environmentally sound technologies; (d) emerging technologies; and (e) women's entrepreneurship development. The activities, conducted through the use of information technology (IT) and other means, encompassed a range of programmes of immediate relevance to the region.

2. Notwithstanding the global economic downturn, APCTT has been playing an important role in assisting developing countries of the region in facing the challenges and opportunities posed by new and emerging technologies. Activities have ranged from the training of experts to advisory services in technology transfer and policy development. The Centre's proactive advisory and information services for the delivery of integrated technology transfer packages to SMEs were rendered through diverse channels, such as technology information and transfer networks, partnerships with technology transfer intermediaries worldwide, technology transfer events, technical periodicals and publications and the Internet.

3. In 2002, APCTT cooperated in technology transfer-related fields with more than 100 industrial associations, chambers of commerce and business development organizations in 33 countries. It organized/coorganized 55 technology transfer-related events (training programmes, regional workshops, exhibitions, seminars and expert group meetings) in 15 countries of the region: Bangladesh, China, India, Indonesia, Islamic Republic of Iran, Malaysia, Maldives, Mongolia, Nepal, Pakistan, Philippines, Russian Federation, Sri Lanka, Thailand and Viet Nam.

4. In the area of environmentally sound technologies, the focus was on technologies and techniques available in the Asian and Pacific region and affordable to SMEs. The Centre has also worked towards intensifying transfer partnerships and networks for environmentally sound technologies among technology transfer institutions to enhance intraregional and interregional cooperation. Through a project financed by Environment Canada, APCTT is working to establish and operate a subregional training centre for the South Asian Association for Regional Cooperation region under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

5. Pursuant to discussions at the fifty-eighth session of the Commission, in May 2002, APCTT, in cooperation with the Korea Research Institute of Bioscience and Biotechnology, is developing a project for the establishment of a biotechnology information network in Asia. The Centre has contacted its focal points in various member countries and solicited their cooperation for the successful implementation of the project.

6. Through its periodicals and publications, the Centre endeavoured to keep SMEs and policy makers up to date on the latest technological developments in the transfer and acquisition of technologies. The publications have also served as a tool to bring providers and seekers of technology together. The *Asia Pacific Tech Monitor*, the Centre's prime periodical, with 1,500 subscribers in 70 countries, is issued on a bimonthly basis. The five bimonthly periodicals under its Value Added Technology Information Service (VATIS), *Non-Conventional Energy*, *Waste Technology*, *Biotechnology*, *Food Processing* and *Ozone Layer Protection*, have 4,500 subscribers in 40 countries. The Centre has introduced electronic access to selected contents of its periodicals through its web site (<www.apctt.org>). Through that home page, users can obtain regularly updated information on APCTT and its technology transfer services, development activities, consultancy services, periodicals and publications.

7. APCTT is increasingly applying IT tools for its technology transfer services. To assist entrepreneurs and business managers, APCTT is designing a business portal for technology-led SMEs in Asia and the Pacific in cooperation with other partner institutions in the region as a comprehensive online Internet-based business service. The web portal www.technology4sme.com provides free online e-coaching services to SMEs on tech-entrepreneurship development, innovation management, technology transfer and green productivity. The business e-coaching service is available both online and in a CD-ROM version. This portal facilitates effective and focused communication and interaction among entrepreneurs, investors, technologists, business development experts and policy makers as it incorporates information on business, technology and investment opportunities. Using this new concept, APCTT is facilitating the establishment of model technology transfer agencies in the region. Concerned institutions in China, India, Malaysia, the Philippines, the Republic of Korea, the Russian Federation and Thailand have adopted it as a strategic model for their technology information and transfer service and are customizing it to the national business environment, including translation into local languages. These model agencies will form important pillars of the regional technology transfer network of intermediaries to be established by APCTT.

8. Under the support services for policy and programme development of the United Nations Development Programme (UNDP), APCTT implemented a project on facilitating the development of the IT sector in Mongolia for cross-border e-services. The project assessed the status of IT applications for development in Mongolia and identified the gaps that need to be filled through various interventions. A mechanism was introduced to link the existing expertise with business and economic opportunities outside Mongolia and cross-border e-services were facilitated.

9. The APCTT technology management programme for SMEs has been expanded and several technical cooperation among developing countries programmes were organized in IT-related fields and in the areas of food processing, herbal medicine, bamboo, garments and e-commerce applications. With a view to promoting entrepreneurship development in IT-related areas, the Centre has evolved a curriculum on venture management and pilot tested short training courses for selected countries, such as the Republic of Korea and China. It is now proposed to design curricula for countries of the Indo-China region (Viet Nam, the Lao People's Democratic Republic and Cambodia) to enhance the capabilities of SMEs and institutions in the field of new venture management in cooperation with relevant technology management institutions in these countries. The Centre has also been organizing training of trainers programmes in specialized areas relating to technology management to promote capacity-building and sharing of experiences in technology assessment and knowledge management.

10. Based on the workshops and training activities carried out in selected fields, the Centre has evolved specific model technology demonstration programmes for upgrading traditional sectors in rural areas such as bamboo, fruit and vegetable processing as well as herbal and traditional medicine. This would enhance the competitiveness of SMEs and promote subregional, regional and interregional cooperation at both the institutional and enterprise levels.

11. In view of the interest and importance of technologies for herbal medicine in countries of the region, APCTT is establishing an Asia-Pacific Network for Traditional and Herbal Medicines in close cooperation with the Hubei Provincial Science and Technology Department in Wuhan, China, and with the participation of institutions from other member countries. The Network aims to become an information exchange centre for traditional medical and herbal medicinal technology and production development in the Asian and Pacific region and an e-business centre for the production of traditional herbal medicine. A bilingual web portal has been developed for this Network and is operational.

12. In 2002, APCTT has strengthened its efforts for the empowerment of women and worked towards spurring on the entrepreneurial efforts of women's groups at the grass-roots level and of individual entrepreneurs at the micro, small and medium scale of production. A range of activities were carried out which included the facilitation of technical training and exposure programmes, technology exchange among women's organizations and the dissemination of technical information material. Some of the highlights were hands-on technical training in biowaste management, hand block printing, natural dyes and boat building, and the preparation of a gender and technology manual, a training manual on post-cocoon technologies and a technology book-cum-business guide for technology-minded women entrepreneurs. In cooperation with non-governmental organizations and other United Nations agencies, the Centre has been working to establish viable and sustainable IT projects for economically and socially disadvantaged women.

13. To strengthen its institutional infrastructure, APCTT has enhanced its working relationships with international organizations, national-level institutions, research and development centres and private sector institutions in member countries. In view of the growth of the Centre's operations and the need for additional office space, the Government of India was requested a few years ago to permit an additional floor in the APCTT building; a decision is still awaited.

14. With the objective of strengthening its financial base, APCTT continued to provide fee-based technology transfer services. The Centre also received donor assistance for programmes and projects, such as the three-year project on the promotion of the technology transfer network for SMEs in the Asian and Pacific region, funded by the Government of Germany for the period December 1999-December 2002. UNDP funded a programme on nurturing technological entrepreneurship through science and technology entrepreneur parks and technology business incubators. Several projects have also been funded by UNDP under the support services for policy and programme development. The Government of India continued to provide institutional support for both host facilities and local posts. As the Commission may wish to learn about some of the new initiatives taken by the Centre to secure financial support for its activities, the following are projects that have already obtained the firm commitment of donors:

(a) Subregional Centre for Training and Technology Transfer for Environmentally Sound Management of Hazardous Waste - Can\$ 1,100,000 from Environment Canada;

(b) Quality assurance and enhancing export competitiveness of tropical fruit in the Asian and Pacific region: quality control and certification, fruit processing upgrading and marketing strategy - US\$ 1,766,100 from the Common Fund for Commodities;

(c) Enhancing capabilities of selected national intermediaries in developing advanced IT-enabled technology transfer services customized to the local business environment and integrating their web-based solutions into the regional IT-enabled Asia-Pacific technology transfer network - 500,000 euros from the Government of Germany.

15. The enhanced work portfolio of the Centre has made it necessary to strengthen its personnel infrastructure. The services of experts for specialized tasks are essential for realizing the goals of APCTT. The institutional support provided by the Government of Germany, which funded the post of the Director, has ceased with the completion of the first phase of the project on the promotion of the Technology Transfer Network for Small and Medium Enterprises in the Asian and Pacific Region. The post of the Technical Adviser has been financed mainly through project funds. The Governments of the Philippines and Viet Nam both assigned experts in the area of technology transfer to the Centre. APCTT has applied for the services of associate experts and non-reimbursable loan experts and has used the services of United Nations volunteers in the areas of women in development, technology

transfer and IT. The Government of India has been requested to enhance its institutional support to the Centre to enable the recruitment of additional staff. APCTT used the services of project personnel, experts and consultants to carry out its programme of work. The Shanghai Technical Transfer Exchange sent a staff member to APCTT for short-term training. Increased cooperation from member countries, especially in the placement of professional manpower for specialized services, will further strengthen the catalytic role of APCTT.

II. ISSUES FOR CONSIDERATION

16. The Commission may wish to consider the following recommendations with regard to institutional arrangements:

- The Centre's activities in its five thrust areas and in other emerging areas of technology should be further enhanced and promoted for the benefit of the countries of the region.
- APCTT played an important role in promoting the technological development of the member countries and regional cooperation in science and technology and the participating countries should consider increasing their contributions to the Centre.
- The proposed increase in institutional support to APCTT should be brought to the attention of the Commission at its fifty-ninth session.
- Enhanced awareness of the Centre's activities was needed and ESCAP should organize meetings for representatives of the diplomatic community at New Delhi and Bangkok, possibly including a meeting of the Advisory Committee of Permanent Representatives and Other Representatives Designated by Members of the Commission.
- Welcoming the current practice of seconding experts in the field of technology transfer to APCTT, countries were invited to depute experts and senior personnel to the Centre based on its requirements.

17. The Commission may also wish to consider and endorse the substantive portions of the report of the Governing Board on its seventeenth session, which is contained in the annex to the present report, and provide guidance on the work of APCTT, particularly with regard to its recommendations.

Annex

**REPORT ON THE PROCEEDINGS OF THE GOVERNING BOARD OF THE
ASIAN AND PACIFIC CENTRE FOR TRANSFER OF TECHNOLOGY
ON ITS SEVENTEENTH SESSION**

Hanoi, 31 October-1 November 2002

**I. RECOMMENDATIONS FOR CONSIDERATION AND
ADOPTION BY THE COMMISSION**

1. The report on the eighteenth meeting of the Technical Advisory Committee was endorsed by the Governing Board at its seventeenth session, held at Hanoi, on 31 October and 1 November 2002. The Board commended the Centre's programmes in its thrust areas, namely, technology transfer support services for small and medium-sized enterprises (SMEs), technology management and innovation, environmentally sound technologies, emerging technologies and women's entrepreneurship development. Those had been directed towards technological capacity-building and innovation and subregional and regional networking in 2002. The following recommendations were made by the Board:

- The Centre's activities in the areas mentioned above should be further enhanced and activities in other emerging areas of technology should be promoted for the benefit of the countries of the region.
- Since APCTT played an important role in promoting the technological development of the member countries and regional cooperation in science and technology, the participating countries should consider increasing their contributions to the Centre.
- The proposed increase in the institutional support to APCTT should be brought to the attention of the Commission at its fifty-ninth session.
- Enhanced awareness of the Centre's activities was needed and ESCAP should organize meetings for representatives of the diplomatic community at New Delhi and Bangkok, possibly including a meeting of the Advisory Committee of Permanent Representatives and Other Representatives Designated by Members of the Commission (ACPR).
- Welcoming the current practice of seconding experts in the field of technology transfer to APCTT, countries were invited to depute experts and senior personnel to APCTT based on the Centre's requirements.

II. SUMMARY OF THE DELIBERATIONS

2. The Board had before it a report on the activities of APCTT during the period from November 2001-November 2002, the report of the Technical Advisory Committee on its eighteenth meeting and a document on institutional support to APCTT.

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A. Report on the activities of APCTT during the period from November 2001 to November 2002 and presentation of the programme of work

(Agenda item 4)

3. The Director of APCTT mentioned that the document, "Report on the activities of the Centre, November 2001-November 2002", would provide a general overview of APCTT's main programme initiatives, including specific activities in 2002.

4. He outlined major projects and activities implemented by APCTT and informed the Board of the results and impacts achieved. He described the Centre's approach to promoting technology transfer in the region in APCTT's main thrust areas, namely, technology transfer support services for SMEs, technology management and innovation, environmentally sound technologies, emerging technologies and women's entrepreneurship development. The Director presented the new initiatives and the future programme of work of the Centre, which took into consideration the recommendations made by the Technical Advisory Committee at its eighteenth meeting.

5. The Director reported to the Board on the administration and the financial status of the Centre, in particular, its infrastructure and cooperation arrangements, its financial base and human resources. He presented a report on the funds received by APCTT and the Centre's expenditure during the reporting period. He emphasized that although APCTT was able to raise significant project funds from bilateral and multilateral donors in order to provide assistance to its members, the members' institutional support to the Centre fell short of the minimum level required. APCTT had been able to achieve its objectives during the reporting period and strengthen its position as a dynamic and well-networked technology transfer agency in Asia and the Pacific.

B. Report of the Technical Advisory Committee on its eighteenth meeting

(Agenda item 5)

6. The Chairman of the eighteenth meeting of the Technical Advisory Committee introduced the report on the meeting. He informed the Board that the meeting had been held at Hanoi from 28 to 30 October 2002 and had been attended by representatives of 13 countries, Bangladesh, China, India, Indonesia, the Islamic Republic of Iran, Mongolia, Nepal, Pakistan, the Philippines, the Republic of Korea, Sri Lanka, Thailand and Viet Nam, and by a representative of ESCAP.

7. The Committee had commended the Centre's programmes implemented in its five thrust areas: technology transfer support services for SMEs, technology management and innovation, environmentally sound technologies, emerging technologies and women's entrepreneurship development. Those had been directed in 2002 towards technology capacity-building and innovation and subregional and regional networking.

8. He informed the Board that the Technical Advisory Committee, at its eighteenth meeting, had recommended special activities, some of them specific to member countries, for incorporation into the Centre's future programme of work. In pursuance of the recommendation of the Commission at its fifty-eighth session, and with the support of the Ministry of Science and Technology of the Republic of Korea, a project for the establishment of a regional biotechnology network in Asia was being developed in cooperation with the Korea Research Institute of Bioscience and Biotechnology.

9. The Committee had noted with regret the decision of Mr. Jürgen Bischoff to relinquish his duties as Director of the Centre. It had expressed its full appreciation and recognition of the efforts and contribution of Mr. Bischoff in enhancing technology transfer and management in Asia and the Pacific and had commended his efforts in furthering the objectives of APCTT.

10. The members of the Committee had expressed their deep gratitude and appreciation to the host country, Viet Nam, for the excellent arrangements made, the facilities provided, the warm and generous hospitality accorded and the efficient organization of the meeting.

11. The Board endorsed the report of the Technical Advisory Committee on its eighteenth meeting. It called for early implementation of the activities suggested and requested that at the next session of the Board APCTT report on the progress made with regard to the implementation of those activities. The Board felt that APCTT activities should be further strengthened in its priority areas. APCTT was therefore encouraged to cooperate with its focal points to identify the needs and requirements of its members in the enhancement of technological capabilities and the management, development and transfer of technology. The Board held the view that priority should be given to regional activities or activities targeting groups of countries with similar needs and requirements and to demonstration projects and networking.

C. Institutional support to APCTT

(Agenda item 6)

12. The Board had before it the document entitled, "Institutional support to APCTT", prepared by the ESCAP secretariat. In introducing the document, the Acting Chief of the ICT Policy Section, Information, Communication and Space Technology Division of ESCAP, pointed out that since the establishment of APCTT 25 years previously, the last several years had been the Centre's most successful in terms of achieving its objectives of promoting technology transfer and management and regional cooperation, thanks to the dedication, knowledge and experience of its staff, and in particular the Director, and the recognition by the countries of the region of the vital importance of science and technology for sustainable development in the age of globalization. While programme support for the Centre had been continuously increasing, institutional support was still below the estimated baseline of US\$ 360,000 required for supporting a core group of staff, including the Director, and for infrastructure maintenance. Therefore, he urged all countries to increase their contributions to APCTT.

13. He pointed out that the Board, at its tenth session, had established a working group to consider the practical modalities for the establishment of the Endowment Fund, which the Commission had endorsed at its fifty-seventh session. Not much progress had been made towards the establishment of the Fund; he suggested that the Board review that issue again.

14. He drew attention to the fact that the assignment of experts and senior personnel to work at APCTT had proven beneficial to the Centre as that had alleviated the burden on the already stretched personnel infrastructure of the Centre. That arrangement had also benefited the respective countries as it fostered cooperation with APCTT and experts gained work experience that was beneficial to them on return to their home countries. He therefore invited other member countries to depute experts and senior personnel to work at the Centre.

15. He suggested additional measures to enhance and sustain institutional support to APCTT, such as paid membership in APCTT networks. He also proposed that awareness of APCTT activities among governmental officials responsible for determining the level of the national contribution to APCTT should be increased.

16. While reiterating the important role APCTT played in promoting technological development of member countries and regional cooperation in science and technology, the Board unanimously expressed the view that institutional support to APCTT should be increased to further enhance its valuable services to countries of the region. Taking into account the decision of the Governing Board at its twelfth session, in November 1997, that the annual minimum contribution was US\$ 20,000 for developing countries and US\$ 5,000 for least developed countries, the Board recommended that its members consider increasing their present contributions to APCTT to meet the requirements of the Centre. Considering that many APCTT focal points did not have authority to take final decisions regarding their country's contribution to APCTT, the Board proposed that to enhance awareness of APCTT activities, meetings should be organized for representatives of the diplomatic community at New Delhi and Bangkok, possibly including a meeting of ACPR. The Board further suggested that the issue of the required increase in institutional support for APCTT be brought to the attention of the Commission at its fifty-ninth session and that APCTT focal points inform the delegations of their countries attending the session of the importance of the issue.

17. The Board was informed by the representative of the International Labour Organization of its experience in the establishment of an endowment fund for one of its institutions. That experience had been very successful and she offered to provide APCTT with more details. In that regard, APCTT was requested to reconvene the working group constituted at the twelfth session of the Governing Board, which consisted of representatives of China, India, the Islamic Republic of Iran and Thailand, to work out the practical modalities for the establishment of the Endowment Fund and to present a report to the Governing Board at its eighteenth session.

18. The Board welcomed the current practice of the secondment of national experts to APCTT, which had proved beneficial to APCTT and the countries concerned. The Board noted with appreciation that other countries had expressed interest in assigning experts and senior personnel to APCTT. The Board requested that APCTT provide information on the needs and expertise required for experts and senior personnel to work at the Centre.

D. Date and venue of the eighteenth session of the Governing Board

(Agenda item 7)

19. The Board appreciated the offer of the representative of the Government of the Philippines to host the eighteenth session of the Governing Board at Cebu City, Philippines, in November 2003.

E. Other matters

(Agenda item 8)

20. On behalf of the host country, the representative of the Government of India stated that India provided host facilities to APCTT and was the largest donor of institutional support to the Centre. The Government appreciated the commendable efforts made by the Centre. The Board had been informed that Mr. Jürgen Bischoff, Director of APCTT, would be relinquishing his duties at the Centre. The Government of India would be informed of that development and would be in touch with ESCAP and APCTT in that regard. He suggested that ESCAP and APCTT communicate with member countries on the matter.

21. He noted the multiplier effect achieved by the Centre's untiring efforts in the region and stated that the Government of India continued to support the Centre. India had provided technical inputs and resource personnel for relevant programmes in the region organized by the Centre, such as in the area of technology management.

22. On behalf of the Government of India, he expressed appreciation for the support given to the Centre by the Government of Germany and for assistance provided by the Government of the Netherlands and by other agencies. He urged the member countries to provide suitable support to APCTT so that it could further enhance its activities and programmes for the benefit of member countries in the region.

23. Recognizing the efforts and contribution of Mr. Jürgen Bischoff as Director of APCTT in enhancing technology transfer and management in Asia and the Pacific, Board members expressed their full appreciation of his work at APCTT for nine years. They commended in particular his efforts to further the objectives of APCTT, which had significantly benefited member countries. It was with regret that the Board took note of Mr. Bischoff's decision to step down as Director of APCTT. The members expressed their interest in continuing productive relationships with Mr. Bischoff in his new post.

24. The representative of Malaysia, who had been unable to attend the eighteenth meeting of the Technical Advisory Committee, offered to host some of the programmes of APCTT, in particular, those programmes related to quality and the environment, cleaner technologies and biotechnology.

25. The members of the Board also expressed their deep gratitude and sincere appreciation to the host country, Viet Nam and particularly to Mr. Thach Can and Mr. Thai Van Tan for the excellent arrangements made, the host facilities provided and the hospitality accorded to all the members to ensure the smooth organization of the session at Hanoi.

F. Adoption of the report

(Agenda item 9)

26. The Board adopted its report on 1 November 2002.

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