
Economic and Social Commission for Asia and the Pacific
Asian and Pacific Centre for Transfer of Technology

Governing Council

Sixteenth session

Guangzhou, China, 2 and 3 December 2020

**Report of the Governing Council of the Asian and Pacific
Centre for Transfer of Technology on its sixteenth session**

**I. Matters calling for action by the Commission or brought to
its attention**

1. The following decisions adopted by the Governing Council of the Asian and Pacific Centre for Transfer of Technology are brought to the attention of the Economic and Social Commission for Asia and the Pacific (ESCAP):

Decision 1

The Council takes note, with appreciation, of the report on the activities of the Centre during the period December 2019 to November 2020. The Centre is requested to continue providing demand-driven capacity-building support on technology innovations for sustainable development, national innovation systems and technology policy (including intellectual property rights and access to finance) as well as on the identification, transfer, adaptation and adoption of technologies, with a special focus on technologies related to the fourth industrial revolution, renewable energy, health, and climate change mitigation and adaptation, as well as agriculture and water.

Decision 2

The Council, given its findings that the Centre's regional activities are demand driven and highly useful to the needs of its members, requests the secretariat to circulate invitations to all Council members when organizing the regional capacity-building events to seek self-funded participation. It recommends that its members secure funds to send their representatives to the Centre's regional events and update their focal point lists for smooth communications.

Decision 3

The Council invites its non-contributing members to consider providing voluntary financial contributions to the Centre.

Decision 4

The Council invites its members to consider providing voluntary financial contributions to the Centre at the level recommended in the report of the independent external evaluator prepared in 2018. It recommends voluntary contributions of \$7,000 from the least developed countries and \$30,000 from the developing countries.

Decision 5

The Council invites members and associate members to consider financing new technical cooperation projects or to provide in-kind support to the Centre to enhance the level and the coverage of its capacity-building activities.

Decision 6

The Council requests the Centre to work with members and associate members to develop technical cooperation projects of interest to them for submission to international donors.

Decision 7

The Council invites member States to consider contributing national experts to work at the Centre on a non-reimbursable-loan basis. Such arrangements will enable the experts to benefit from the work experience at the Centre while easing the human resource constraints it currently faces.

Decision 8

The Council adopts the programme of work of the Centre for 2021 as presented in annex III to the present document.

Decision 9

The Council requests the Centre to consider appropriately, within its mandate and given available resources, the proposals presented by the members as well as other organizations during the session.

Decision 10

The Council takes note of the main conclusions of the International Conference on Emerging Technologies to Combat the Coronavirus Disease (COVID-19) Pandemic. The Council requests the Centre to take into account the recommendations of the Conference when designing future activities and to annex the Chair's summary of the Conference to the present report.

Decision 11

The Council notes that the organization of the annual International Conference on Emerging Technologies to coincide with the session of the Council is highly useful, as the recommendations that emerge from the Conference could be considered when discussing the Centre's programme of work. The Conference also increases the visibility of the Centre. The Council recommends the Centre to continue this good practice of organizing the Conference to coincide with future Council sessions.

Decision 12

The Council welcomes with appreciation the offer, made by the Government of India, to host its seventeenth session around November or December 2021, subject to final confirmation.

II. Proceedings**A. Report on the activities of the Centre for the period December 2019 to November 2020**

(Agenda item 2)

2. The Council had before it the report on the activities of the Centre during the period December 2019 to November 2020.

3. The Council expressed appreciation for the work carried out by the Centre during the reporting period despite major challenges and restrictions due to the COVID-19 pandemic.

4. Several representatives welcomed the Centre's initiative to hold an international conference and a regional workshop on the role of science, technology and innovation in managing the COVID-19 pandemic.

B. Report on the administrative and financial status of the Centre, including resource mobilization for upcoming projects and/or activities

(Agenda item 3)

5. The Council had before it the document containing the report on the administrative and financial status of the Centre, including resource mobilization for upcoming projects and/or activities during the period January to October 2020.

6. The Council took note of the report.

7. The Council noted with appreciation that the Government of India had increased its annual budgetary contributions from \$400,000 to \$870,000. The Council expressed gratitude to other member countries for providing annual voluntary contributions to the Centre so that it could continue its useful activities.

8. The Council noted the fact that the Centre was in the process of complying with resolution 71/1, adopted at the Commission's seventy-first session, in 2015, in which the Commission requested all regional institutes to be primarily funded by extrabudgetary resources.

C. Proposed programme of work for 2021

(Agenda item 4)

9. The Council had before it the draft programme of work of the Centre for 2021.

10. Representatives of the Council's member countries and observers highlighted their priorities in the area of science, technology and innovation and suggested that the Centre consider these proposals on the basis of its priorities, subject to the conformity of the proposals with its mandate and the availability of resources.

11. The representative of Bangladesh proposed that the Centre take up activities related to human resource development in the areas of biotechnology as well as science, technology and innovation. The representative also requested the Centre's support to establish a regional research centre for the management of new diseases.

12. The representative of China proposed cooperation with regard to resource mobilization from international organizations for joint South-South cooperation projects as well as support for and coordination of the Asia-Pacific regional innovation knowledge network for fourth industrial revolution technologies for knowledge-sharing. The representative also invited participants to technology transfer and matchmaking events in China.

13. The representative of India said that there was a significant gap between academia and industry which needed to be filled. In that context, the representative proposed that the Centre consider organizing academia-industry networking events on the following priority topics for the Council of Scientific and Industrial Research of India: health care; agriculture, nutrition and biotechnology; ecology, environment, earth and ocean sciences and water; energy (conventional and non-conventional) and energy devices; aerospace, electronics, instrumentation and strategic sectors; civil infrastructure and engineering; mining, minerals, metals and materials; and chemicals (including leather chemicals) and petrochemicals.

14. The representative of Indonesia expressed appreciation for the good cooperation between Indonesia and the Centre and proposed holding an international workshop in 2021 on intellectual property. Priority topics for the workshop would include market analysis to prepare for the commercialization of intellectual property, and intellectual property valuation. The representative invited the Centre to conduct a training programme on intellectual property licensing and negotiation skills with specific case studies from areas such as biotechnology and health care.

15. The representative of the Islamic Republic of Iran proposed collaborating with the Centre on technical and scientific research and the development of regional programmes and said that the Centre should promote and facilitate regional access to the country's technologies. The Government of the Islamic Republic of Iran was ready to cooperate with the Centre to implement technological and vocational training programmes as well as technological and scientific training courses for researchers and university staff in the country. The representative requested the Centre to consider organizing expert workshops and training courses in the Islamic Republic of Iran on the following topics: technology transfer; advanced machining processes; advanced food packaging; medicinal plants; biogas production; safety and evaluation of threats to human health from genetically modified agricultural products; and critical energy issues, with a special emphasis on renewable energy, energy efficiency and productivity.

16. The representative of Malaysia said that the Ministry of Science, Technology and Innovation had collaborated with Academy of Sciences Malaysia to develop the Malaysia Open Science Platform. The representative invited the Centre to collaborate on and accelerate the Platform's development.

17. The representative of Nepal mentioned the new national science and technology policy formulated in 2019. The representative requested member States to share experiences with regard to the implementation of science, technology and innovation policy through the Centre.

18. The representative of Pakistan proposed that the Centre provide support on two projects, on the role of information and communications technologies in water resource management and on strengthening national capacity to reduce drought impacts and improve food security.

19. The representative of the Republic of Korea proposed that the Centre take up initiatives in the key priority area of digitization, which has become essential during the COVID-19 pandemic, and promote regional cooperation in knowledge-sharing with regard to emerging and climate technologies.

20. The representative of Sri Lanka said that the Centre could take up technical cooperation projects and capacity-building activities in the following areas: reduction of post-harvest losses; knowledge- and experience-sharing on new renewable energy applications; and provision of expert guidance for the country's standard prototyping and training facility, the aim of which was to support industries on product development and the improvement of testing facilities for innovations.

21. The representative of Thailand proposed that the Centre consider activities or programmes to enhance the capacity and competitiveness of member States in the post-COVID-19 era in following areas: balancing economic, social and environmental development to build resilience to change in the region; prioritizing research and innovation activities on food, health care, energy and jobs; preparing for future disruptions through the use of emerging technologies such as robotics and artificial intelligence; implementing the biocircular and green economic model for sustainable development; and strengthening higher education and human resource development.

22. The representative of Uzbekistan proposed that the Centre consider technical cooperation projects to support economic recovery following the COVID-19 pandemic.

23. The representative of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Regional Bureau for Science in Asia and the Pacific proposed a joint project with a focus on the following areas: creation of a dynamic catalogue of localized, indigenous and knowledge-based technologies or innovations for achieving the Sustainable Development Goals; facilitation of the adoption of a number of localized, appropriate and alternative technologies and innovations; and promotional events to present and promote the dynamic catalogue.

D. Main conclusions of the discussions of the International Conference on Emerging Technologies to Combat the COVID-19 Pandemic, 1 December 2020

(Agenda item 5)

24. In his summary, the Chair presented the main conclusions and recommendations of the International Conference on Emerging Technologies to Combat the COVID-19 Pandemic (see annex II).

E. Dates of and venue for the seventeenth session of the Governing Council

(Agenda item 6)

25. The Council considered possible dates of and venues for its seventeenth session, to be held in 2021.

F. Other matters

(Agenda item 7)

26. The secretariat informed the Council that the work programmes of the Centre were subject to regular external evaluation by an independent evaluator. The most recent evaluation took place in 2018 and covered three key parameters, namely efficiency, sustainability and relevance. The external evaluator gave the Centre a very high rating on efficiency and relevance but a very low rating on sustainability. The issue of low financial sustainability was resolved in 2020 as a result of the pledge made by the Government of India, the Centre's host country, to increase its institutional support to the Centre.

G. Adoption of the report of the Governing Council on its sixteenth session

(Agenda item 8)

27. The Council adopted the present report on 3 December 2020.

III. Organization**A. Opening, duration and organization of the session**

28. The Council held its sixteenth session, in Guangzhou, China, on 2 and 3 December 2020. The Head of the Centre and the Under-Secretary-General of the United Nations and Executive Secretary of ESCAP delivered opening addresses. The welcome address was delivered by Mr. Linhao Chen, Deputy Director General of the Department of International Cooperation of the Ministry of Science and Technology of China. Mr. Shekhar C. Mande, Secretary of the Department of Scientific and Industrial Research and Director General of the Council of Scientific and Industrial Research of the Ministry of Science and Technology of India delivered his remarks on behalf of the Governing Council of the Centre.

29. The Head of the Centre welcomed the delegates to the sixteenth session. She said that the role of science, technology and innovation had never been so important. In response to the COVID-19 pandemic, the Centre had facilitated the sharing of best practices and regional cooperation by organizing international events with member States. Even in difficult times, the Centre would continue to play a catalytic role to support member States in their efforts to achieve the Sustainable Development Goals.

30. The Executive Secretary of ESCAP said that COVID-19 had clearly slowed progress on the 2030 Agenda for Sustainable Development. Member States had been at the forefront in formulating and implementing strategies to manage the ever-evolving COVID-19 pandemic and its impacts. There was a need to collectively support and guide the programmes of the Centre towards advancing, integrating and leveraging science, technology and innovation to combat the pandemic and pursue sustainable development. She proposed the following strategic ideas for consideration: supporting, embracing and progressing the fourth industrial revolution; leveraging the region's technological capabilities and human capital; ensuring inclusive development; and integrating various development approaches.

31. The Deputy Director General of the Department of International Cooperation of the Ministry of Science and Technology of China said that the Government was willing and keen to deepen cooperation on technology with the member States through the Centre. The existence of a number of institutions working in the fields of technology transfer and fostering regional cooperation

in China presented an opportunity for national cooperation with the Centre for the benefit of the Asia-Pacific region.

32. The Secretary of the Department of Scientific and Industrial Research and Director General of the Council of Scientific and Industrial Research of the Ministry of Science and Technology of India, speaking on behalf of the Governing Council of the Centre, said that the member States needed various types of capacity-building programmes and that the Centre could play a key role in that regard. The Centre could also enable regional cooperation and knowledge-sharing. Member States were encouraged to explore and develop joint technical cooperation projects with the Centre.

B. Attendance

33. The session was attended by representatives of all the members of the Council, namely the following: Bangladesh; China; India; Indonesia; Iran (Islamic Republic of); Nepal; Pakistan; Republic of Korea; Sri Lanka; Thailand; and Uzbekistan.

34. Representatives of the following members and associate members of the Commission attended the session as observers: Malaysia; and Philippines.

35. A representative of the UNESCO Regional Bureau for Science in Asia and the Pacific attended as an observer.

C. Election of officers

36. The Council elected the following officers:

Chair:	Mr. Linhao Chen (China)
Vice-Chair:	Mr. Jayasuriya Arachchige Ajith Dhammika Jayasuriya (Sri Lanka)

D. Agenda

37. The Council adopted the following agenda:

1. Opening of the session:
 - (a) Opening statements;
 - (b) Election of officers;
 - (c) Adoption of the agenda.
2. Report on the activities of the Centre for the period December 2019 to November 2020.
3. Report on the administrative and financial status of the Centre, including resource mobilization for upcoming projects and/or activities.
4. Proposed programme of work for 2021.
5. Main conclusions of the discussions of the International Conference on Emerging Technologies to Combat the COVID-19 Pandemic, 1 December 2020.
6. Dates of and venue for the seventeenth session of the Governing Council.

7. Other matters.
8. Adoption of the report of the Governing Council on its sixteenth session.

Annex I

List of documents

<i>Symbol</i>	<i>Title</i>	<i>Agenda item</i>
<i>General series</i>		
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ESCAP/APCTT/GC/2020/1	Report of the Governing Council of the Asian and Pacific Centre for Transfer of Technology on its sixteenth session	
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<i>Information available online</i>		
www.apctt.org	Information for participants	
www.apctt.org	Tentative programme	

Annex II

Chair's summary*

Main conclusions and recommendations of the International Conference on Emerging Technologies to Combat the COVID-19 Pandemic, 1 December 2020, Guangzhou, China

A. General recommendations

1. The International Conference brought together about 120 participants from the member States of the Governing Council of the Asian and Pacific Centre for Transfer of Technology and other member States of the Economic and Social Commission for Asia and the Pacific (ESCAP), including government officials, science, technology and innovation professionals, international experts, and representatives from the private sector.

2. The main discussions during the Conference were: strategies and the role of science, technology and innovation to combat the COVID-19 pandemic; application of emerging technologies, such as the fourth industrial revolution technologies, to address the challenges of the COVID-19 pandemic; facilitating technology collaboration to mitigate COVID-19; and a panel discussion on the use of emerging technologies to assist in facilitating the sustainable recovery of the economy and building a resilient society.

3. In order to effectively address the challenges of the COVID-19 pandemic and to make progress towards implementing the 2030 Agenda for Sustainable Development and achieving the associated Sustainable Development Goals, member States require holistic development strategies, integrated science, technology and innovation policies, and innovative digital solutions based on already existing as well as new and emerging technologies.

4. The role of international collaboration to address the challenges of the COVID-19 pandemic and build back better for an inclusive recovery was stressed. While there has been a significant upsurge of innovation in using technology to tackle COVID-19, there is an immense need for coordination among countries to benefit from open knowledge-sharing and lessons learned.

5. The Conference emphasized that digital inclusion is an essential pathway to economic recovery as well as societal inclusion, especially in the current situation of the COVID-19 pandemic. The year 2020 has witnessed an exponential growth in the demand for digital networks and services, for example digital finance, and it is essential to ensure that no one is left behind in the new normal. Prompt national strategies on digital inclusion are critical in the response to the current challenges of COVID-19 and necessary to stop rapidly growing inequalities.

6. Conducting genome sequencing of the virus and mass testing using advanced diagnostic methods are crucial steps towards combating COVID-19. Countries in the region, such as China, have developed renovated labs, air labs and container labs as cost-effective health infrastructure to respond to the public health emergency. Highly efficient, fast to deploy and portable container labs have helped widen the coverage of health infrastructure. Such innovative approaches using widely available technologies and materials can be of immense benefit to many other countries in the region.

* The present annex is being issued without formal editing.

7. The scientific community in academic institutions and the private sector has a crucial role in not only testing and developing drugs and vaccines but also training workers to fight the pandemic. They are also important to disseminate credible information related to COVID-19 to policymakers for formulating appropriate strategies for the prevention, mitigation, and containment of the pandemic.

8. Tackling the challenges of the COVID-19 pandemic requires unique collaborations across sectors. New collaborations are needed to connect organizations addressing the digital divide and cross-sector users. Such cross-sector collaborations would, in turn, enhance the case for digital infrastructure investment.

9. The role of open technology platforms in strengthening national innovation systems remains critical. Such open technology platforms and networks need to be leveraged to enhance access to information and promote research, education and health care to prepare for the post-COVID-19 recovery. In addition to fostering cross-border collaborations for knowledge transfer, the benefits of such open technology platforms include faster research translation, building skills and strengthening human capital for the future, and the enhancement of transparency and trust.

10. The Conference also deliberated on national strategies and best practices in countries across the Asia-Pacific region towards combating the COVID-19 pandemic. The COVID-19 policy responses of Bangladesh, China, India, Indonesia, the Islamic Republic of Iran, the Republic of Korea, Nepal, Pakistan, Sri Lanka, Singapore, Thailand and Uzbekistan were discussed.

11. There was a consensus during the Conference that towards containing the spread of the pandemic, new and emerging technologies are playing a significant role through digital innovations such as artificial intelligence, big data, the Internet of Things, massive open online courses, three-dimensional printing and digital automation, among many others. Usage of such emerging technologies and digital innovations needs to be scaled up for the continuation of social and economic activities during the pandemic.

12. Many countries require knowledge support to properly combat the challenges of the COVID-19 pandemic, especially in using technologies for developing and deploying vaccines, which are required in large volume and at affordable price, and for developing testing kits. They also face human resource constraints in terms of qualified professionals to support the process.

13. Knowledge-sharing among countries on emerging technologies is critical for the region to jointly and effectively achieve the Sustainable Development Goals. There is a need to develop and strengthen networks and platforms for bringing together countries to share experiences, best practices and strategies on the development, transfer and adoption of emerging technologies. One such network is the Asia-Pacific regional innovation knowledge network for fourth industrial revolution technologies, which is a direct outcome of an earlier initiative of the Asian and Pacific Centre for Transfer of Technology and is funded by the Ministry of Science and Technology of China. The web platform of the network was launched during the Conference.

14. The member countries highlighted their priority focus areas in the context of the ongoing COVID-19 pandemic and presented proposals for cooperation in areas of emerging technologies at the national and regional levels.

B. Recommendations for the Asian and Pacific Centre for Transfer of Technology

15. The Centre may facilitate institutional cooperation networks to promote emerging technologies such as fourth industrial revolution technologies and other disruptive technologies, especially those related to mitigating the COVID-19 pandemic.

16. The Centre may provide assistance to build the capacity of stakeholders from the member States on establishing regional research and development centres for COVID-19 diagnosis, prognosis and pandemic management.

17. The Centre may facilitate a regional technology cooperation programme for human resource development and strengthening human capital on topics related to COVID-19.

18. The Centre may create a virtual platform to foster regional cooperation through the exchange of ideas and periodic updates on the development of technology, pilots and proofs of concept. It may additionally organize regional expert group meetings, workshops and international conferences with member States.

19. The Centre may provide research and analysis as well as evidence-based policymaking support to member States for promoting emerging technology innovations and technology transfers as well as their commercialization to contribute to inclusive and sustainable development.

20. The Centre may organize capacity-building events and conferences on contemporary and relevant topics like appropriate measures and best practices to ensure economic recovery in a post-pandemic world and smart technologies and innovations in medicine and education, among others.

21. The Centre may foster regional cooperation and develop capacity-building programmes on key topics such as health care across borders, virtual hospitals, digital connectivity, data storage and security, science and technology parks, emerging technologies in education, and virtual universities, among others.

Annex III

Proposed programme of work for 2021

Introduction

1. The programme of work for the Asian and Pacific Centre for Transfer of Technology is aligned with the work programme of subprogramme 2 of the Economic and Social Commission for Asia and the Pacific (ESCAP) on trade, investment and innovation. The following projects are proposed for implementation in 2021.

A. Assist the member States through strengthening their capabilities to develop national innovations, technology transfer and commercialization

2. The capacity-building activities will be funded by the annual contributions received from the Governing Council member States during the year 2021.

3. The objectives will be to increase the capacity of science, technology and innovation policymakers and key stakeholders in ESCAP member States in the following areas: enhancing skill and capability in policymaking and technology transfer and commercialization in the area of science, technology and innovation; promoting the adoption and use of new and emerging technologies for sustainable development; encouraging technology-based entrepreneurship and start-ups; promoting cross-border technology transfer; improving access to knowledge and information on new technological innovations; and promoting regional cooperation.

4. Under this project, the Centre will conduct demand-driven capacity-building activities, taking into account the needs of the member States expressed at the Council sessions. The capacity-building activities will be implemented in partnership with the Centre's national focal points and key nodal institutions in the member States. Member States may propose concrete capacity-building activities for discussion at the sixteenth session of the Council.

5. The project will also support the production of the Centre's regular web-based publication, the Asia-Pacific Tech Monitor, and a publication on clean energy technology transfer and innovation, to be published in 2021.

B. Evidence-based innovation policy for effective implementation of the 2030 Agenda for Sustainable Development in the Asia-Pacific region

6. The project is funded by the United Nations Development Account (11th tranche). It is being jointly implemented by the Trade, Investment and Innovation Division of ESCAP and the Centre during the period 2018 to 2021.

7. The main objective of the project is to strengthen the capacity in developing countries, in particular the least developed countries in South Asia and South-East Asia and the Pacific small island developing States, to formulate evidence-based, integrated and inclusive innovation and technology policies. Through such policies, the Governments of such countries should be able to use science, technology and innovations as effective means of implementation for the achievement of the Sustainable Development Goals.

8. The funding will support the Centre's capacity-building activities and strengthening of online technology databases, with special reference to the least developed countries of the region.