

Expert Group Meeting on strengthening Regional Cooperation in Healthcare Biotechnology and Biomedical Sector

22 March 2022 (Virtual)



Organised by

**Asian and Pacific Centre for Transfer of Technology (APCTT) of the
United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
New Delhi, India**

Expert Group Meeting on strengthening Regional Cooperation in Healthcare Biotechnology and Biomedical Sector

22 March 2022
(Virtual)

Organized by

Asian and Pacific Centre for Transfer of Technology (APCTT) of the
United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

Background

COVID-19 pandemic has emphasized the importance of science, technology and innovation (STI), particularly in healthcare sector. STI has been crucial in developing response measures to the pandemic including testing kits, repurposing of drugs, and developing vaccines. Medical biotechnology, in which pharmaceutical and medical products are produced using biotechnological tools to prevent, diagnose, and treat diseases, is at the cornerstone of recent development of vaccines in much shorter span of time. Antibiotics, genetic testing, genome mapping, and artificial tissue growth are among the most well-known products in this field. The role of biotechnology has been significant in healthcare in many ways such as production of genetically improved treatment for diseases and enhancement of immunity against diseases. During the pandemic, medical technologies have played a crucial role in the prevention, diagnosis and treatment of illness and diseases as well as patient rehabilitation¹.

The pandemic exposed the limitations of institutional and research and development (R&D) capacity in the healthcare sector specially in developing and least developed countries of Asia-Pacific region. Data indicates that there are huge differences in availability of technologies across countries in Asia-Pacific, and that the higher the country income level the higher the availability of medical equipment per million population². Some countries are adopting strategies such as developing biotechnology clusters, focusing on niche areas, and enhancing human resources to become competitive in medical biotechnology. On the other hand, the pandemic has highlighted the need for countries to develop relevant infrastructure (e.g., R&D institutions, laboratories, testing and maintenance facilities, and technology incubators). This requires appropriate interventions in policies and strategies as well as technical and financial support internally and from international partners. Regional and bilateral cooperation would play a vital role in establishing healthcare biotechnology infrastructure and facilities, for R&D, technology incubation, testing and maintenance, in the countries of special needs in this area. For example, building on the success of mRNA research and development of COVID-19 vaccines, a regional hub to support a global supply of mRNA-based vaccines and build capabilities for future pandemic threats is being planned to be established in the Asia Pacific region. In this context,

¹ For instance, India's indigenous COVID-19 vaccine, COVAXIN, was developed using Whole-Virion Inactivated Vero Cell derived platform technology and was widely administered as a defense to the virus (Source: <https://www.bharatbiotech.com/covaxin.html>)

² OECD, 2020. Health at a glance: Asia Pacific 2020.

APCTT is organizing a regional Expert Group Meeting (EGM) on strengthening regional cooperation in healthcare biotechnology and biomedical sector to support member States in the Asia-Pacific Region.

Objectives

1. Understand the country needs and availability of institutional, technical and financial support mechanisms for strengthening healthcare biotechnology and biomedical facilities
2. Identify opportunities and modalities for mechanisms to support establishment of institutions and facilities with focus on biomedical machines and equipment
3. Solicit recommendations on viable models of R&D institutes, analytical support, capacity building and regional cooperation

Target participants: Biomedical experts on R&D strategy and management, Innovation policymakers from Governments

Countries expected to Participate: Bangladesh, India, Indonesia, Kazakhstan, Malaysia, Nepal, Pakistan, Philippines, Republic of Korea, Sri Lanka, and Thailand