



# STRATEGIC PLAN

2023-27

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



*Abridged version*

## INDEX

<b>I. APCTT's key commitments in the Strategic Plan period 2023-27 .....</b>	<b>33</b>
1. Vision.....	33
2. Mission.....	33
3. APCTT'S Core Commitments .....	33
4. APCTT's Aspirations under the Strategic Plan 2023-27.....	3
5. Prioritised Thematic areas for the Strategic Plan.....	33
<b>II. Strategic Framework for the Strategic Plan.....</b>	<b>55</b>
Strategy 1: Technology innovation and scale-up of new, emerging technologies .....	55
1.1. Enhance skills, capacities and availability of technical personnel in member States on technologies prioritised by APCTT...5	
1.2. Provide technical support to member States in technology assessments .....	6
Strategy 2: Enabling policies and linkages (including technology & financing mechanisms) .....	6
2.1. Strengthen national technology policies for innovation and adoption of technologies prioritised by APCTT.....	6
2.2. Link national stakeholders to financing and technology support mechanisms.....	7
Strategy 3: Enhance cross-border cooperation and networking for technology transfer .....	7
3.1. Strengthening regional frameworks, networks and institutions .....	7
3.2. Facilitate cross-border knowledge management .....	7
3.3. Strengthen regional cooperation mechanisms on transfer of emerging technologies.....	7
(a) Implementation Modalities.....	8
6. Mapping of proposed strategies vs constraints in the technology ecosystem in Asia Pacific.....	8
<b>VI. APCTT's partnership framework.....</b>	<b>10</b>
7. Key External Stakeholders .....	10
8. Internal Stakeholders.....	10
(a) Potential Partnership modalities with Regional Institutions of ESCAP .....	10
(b) Collaboration areas between APCTT and ESCAP Divisions.....	10
<b>VII. Results APCTT will achieve from 2023-27 .....</b>	<b>11</b>
9. Results Framework for the Strategic Plan .....	12

## **I. APCTT's key commitments in the Strategic Plan period 2023-27**

Based on the above inputs received, APCTT has set for itself the following key commitments in the Strategic Plan period 2023-27:

### **1. Vision**

Enhanced regional cooperation for innovation, adoption, diffusion, and transfer of innovative and emerging technologies in the Asia-Pacific region for addressing climate change and achieving SDGs.

### **2. Mission**

APCTT is the premier Centre for climate change technologies and innovation and promoting technology cooperation in the region.

### **3. APCTT'S Core Commitments**

APCTT will be guided by the following values outlined under the commitments made under the 2022 Bangkok Declaration<sup>1</sup>:

- We commit to leave no one behind.
- We commit to put people at the centre of all our efforts with sustainable development as a priority.
- We commit to protect our planet.
- We commit to promoting sustainable urban development.
- We commit to place all women and girls at the centre of development.
- We commit to work together to enhance regional connectivity.
- We commit to improve digital cooperation.
- We commit to align public and private financial resources to effectively pursue our sustainable development aspirations.
- We commit to boost partnerships that strengthen multilateralism and international cooperation.
- We will listen to and work with youth.
- We commit to build our resilience.

### **4. APCTT's Aspirations under the Strategic Plan 2023-27**

By the end of the Strategic Plan, APCTT has the following aspirations as a premier Centre:

- Be a facilitator, enabler and Capacity Building hub for new, innovative and emerging climate technologies.
- Promote an enabling environment and infrastructure for technology cooperation and transfer, thereby provide value addition to ESCAP as a regional institute.

This will be done by establishing strategic partnerships with other regional and global institutions.<sup>2</sup>

In doing so, APCTT aims to

- Make a visible change along with member States, partners and stakeholders on technology transfer.
- Demonstrate teamwork and innovations in technologies, business processes and own operations.

### **5. Prioritised Thematic areas for the Strategic Plan**

A recent ESCAP report<sup>3</sup> identifies building back from COVID, Climate Change and increased intensity frequency and intensity of natural disasters as the three key priorities of the Asia-Pacific region. Additionally, the Strategic Planning process data from the perception survey, Focus Groups, Interviews

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<sup>1</sup> Economic and Social Commission for Asia and the Pacific, Seventy-eighth session, ESCAP/RES/78/1

<sup>2</sup> For example, Climate Technology Centre and Network, United Nations Technology Bank, etc.

<sup>3</sup> Report released at the 78th session of ESCAP, "Reclaiming our future: a common agenda to advance sustainable development in Asia and the Pacific", May 2022

with ESCAP, national focal points and other stakeholders of APCTT suggested that **climate technologies**<sup>4</sup> could be the key focus of APCTT in its Strategic Plan 2023-27.

The scenario analysis and strategic plan consultations point to the need to bring a clearer focus on the work of APCTT and to show tangible benefits to member States. Since “climate technologies” is also very broad, there is a need for APCTT to prioritize further. In this light, the following four areas have been prioritized in the Strategic Plan for 2023-27:

- **Energy transition and renewable technologies**
- **Climate resilient infrastructure in cities**
- **Digital and fourth industrial technologies (4IR)**<sup>5</sup>
- **Air pollution control technologies**

Further prioritization will be taken up by applying the ESCAP principles of inclusion, sustainability, cost-effectiveness, and innovation.

The Strategic Plan will thereby support member States in achieving the following SDGs and targets (Please see Annex 5 for details):

<b>Targeted SDGs<sup>6</sup></b>	<b>Targets</b>
SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all	Targets 7.a, 7.b.
SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable	Targets 11.6, 11.b
SDG 13: Take urgent action to combat climate change and its impacts	Targets 13.1, 13.2, 13.3
SDG 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Targets 17.6, 17.7

<sup>4</sup> Climate technologies include both mitigation and adaptation technologies, including soft technologies, that help in addressing climate change (<https://unfccc.int/topics/what-is-technology-development-and-transfer>)

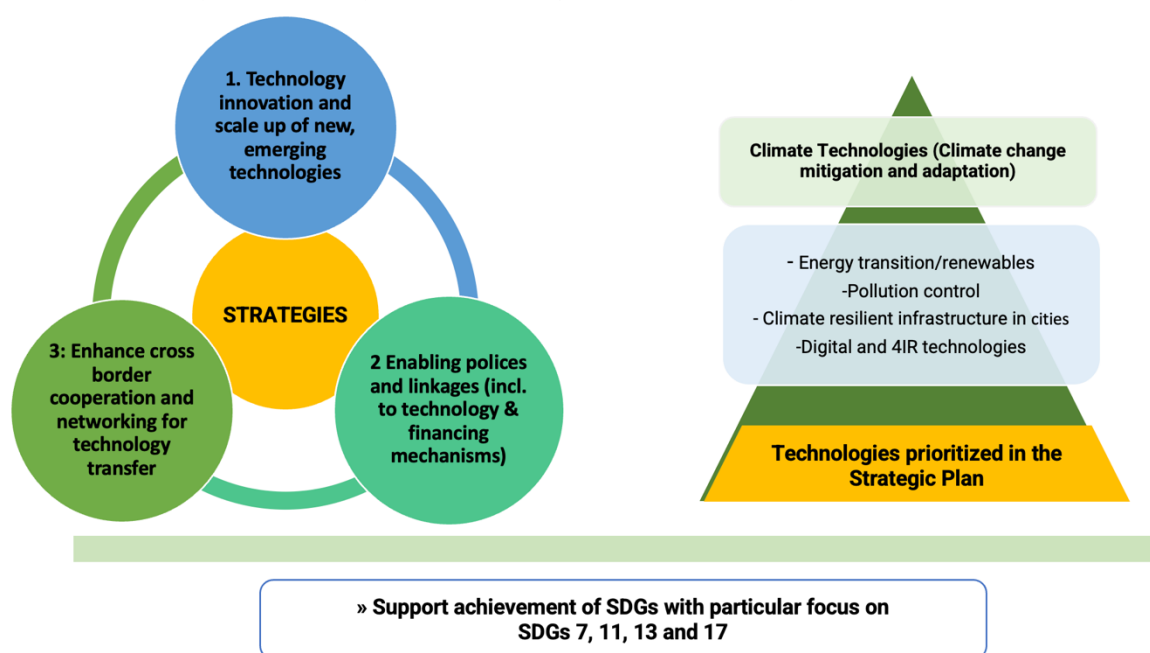
<sup>5</sup> Emerging technologies include new renewable energy technologies and 4IR technologies (AI, Blockchain, IOT and Bigdata technologies for their application in climate change mitigation and adaptation.

<sup>6</sup> <https://sdgs.un.org/goals>

## V. Strategic Framework for the Strategic Plan

Given the learnings from the consultative processes described above, in the next five years, APCTT will focus on three interlinked strategies and seven pathways to meet its key objectives (Figure 2):

Figure 2: Strategies APCTT will follow in the Strategic Plan 2023-27



As suggested by the Governing Council, the Centre will work on technologies related to achievement of SDGs in Asia Pacific region. For this, it will run two tracks of interventions in the next five years:

- On-demand intervention track:** Continue to provide on-demand technical support, policy advice and capacity building in areas identified by member states for achieving the Sustainable Development Goals.
- Focused intervention track on technologies prioritised in the Strategic Plan:** Develop a focused track on technologies related to climate change - Energy Transition and renewables; Pollution Control; Climate resilient infrastructure in cities and Digital and 4IR technologies - to meet the SDGs for the Asia Pacific Region.

Following will be the Strategic Framework the Centre will follow in the next five years:

### Strategy 1: Technology innovation and scale-up of new, emerging technologies

The Strategic Planning exercise identified inadequate capacities of stakeholders as one of the key constraints in innovation, adoption and scaling-up of emerging technologies. Consequently, APCTT's primary emphasis will be to help member States address constraints in national capacities and institutions for technology adoption and absorption. This strategy will consist of the following pathways:

#### 1.1. Enhance skills, capacities and availability of technical personnel in member States on technologies prioritised by APCTT

APCTT will support the development of capacities and skills of technical personnel in member States. This will be done by designing e-training modules and programmes on various technologies as prioritised in the plan and through on demand from members) and in partnership with ESCAP Regional Technical Institutes (such as APCICT, APDIM), and other eminent institutions. Targeted training programmes and modules may also be designed on specific technologies (e.g. hydrogen, batteries, geo-thermal etc.) and also for targeted stakeholders (including women and young entrepreneurs). APCTT will maintain a special focus on the four Priority Technology areas for this Strategic Plan period (transition to renewable energy, climate and disaster resilient infrastructure,

emerging climate technology applications and control of air pollution). The emphasis will be on building modules and conducting capacity building events in the “Training-of-trainers” (TOT) mode, so that member States can further institutionalise this content into their own national TOT systems.

Additionally, APCTT will also facilitate an ongoing capacity building service on emerging technologies for member States. For this, over time, APCTT will become *a regional hub for capacity building in emerging technologies* with its own training calendars and on-demand faculty.

The faculty is expected to come through two mechanisms -

- a) APCTT’s partnerships with globally and regionally eminent academic, technology training and research and development institutions.
- b) APCTT’s partnership with willing national government institutes of excellence.

Additionally, APCTT also proposes to initiate a new “APCTT fellowship and exchange programme” to help member States to send young talent for exposure and trainings. APCTT will support member States to build customised content for the fellows. Member States have expressed the desire to cover the costs of cohorts of young scientists to other member States for these fellowships. The fellowship will be administered by APCTT.

The above interventions are expected to rapidly enhance the critical mass of technical personnel and knowledge pool at country level through institutional strengthening. Additionally, to ensure mainstreaming of emerging technologies into national industrial systems, APCTT will, on demand from members, engage with and strengthen the start-up and entrepreneurship ecosystem around technologies prioritised by APCTT in member States by engaging with Industry Associations and relevant Government departments in member States.

## ***1.2. Provide technical support to member States in technology assessments***

APCTT will support on-demand technology assessments to help member States prioritise technologies, and leapfrog to innovative technologies. Additionally, APCTT will also provide on-demand handholding support for strengthening national databases on technologies and providers. It will also facilitate demonstrations on select technologies prioritised by APCTT’s Strategic Plan. Whole-of-country technology absorption ecosystems will need active action by multiple actors. Hence, APCTT will support member States to develop national partnership frameworks and platforms to foster collaborations between national government and institutions, industry associations, start-ups and academia. Members will also be linked to thematic and general-purpose Networks to help in the exchange of various kinds of information.

### **Strategy 2: Enabling policies and linkages (including technology & financing mechanisms)**

The planning process also found that inadequate enabling regional and national and legal policy frameworks also dampened the adoption and scaling up of technologies. Additionally, even if policy frameworks were conducive to new and emerging technologies, the capital and operation costs were too high or too complex for member States to adopt the same. This points to two obvious pathways for APCTT, one to support strengthening regional and national policies and another to facilitate access to financing and technical support mechanisms. The section below gives details.

#### ***2.1. Strengthen national technology policies for innovation and adoption of technologies prioritised by APCTT***

To achieve Strategy 2, APCTT will support policy reviews and assessments in partnership with relevant ESCAP Substantive Divisions (such as TIID, EED and ED) to make the adoption of innovative technologies easier. The reviews could also be supplemented by support to build technology adoption and absorption national roadmaps and action plans. APCTT will also undertake a comparative analysis of policy frameworks between member States to provide ideas for newer member States for policy action. APCTT also envisages that a need for capacity development of policy makers and practitioners may arise for strengthening national technology policies and will provide the same on demand.

## ***2.2. Link national stakeholders to financing and technology support mechanisms***

To overcome capital and operation cost constraints in the adoption of emerging technologies, APCTT will establish linkages between interested governments, technical and global or regional financial institutions and private sector for financing of emerging technologies. Under the Strategic Plan period, APCTT will provide platforms and linkages to financing mechanisms for technology transfer to member States. Additionally, APCTT will also create support systems for technical handholding through partnerships with technical support institutions for interested member States on climate technologies by linking nations to specific support institutions.

## **Strategy 3: Enhance cross-border cooperation and networking for technology transfer**

The Strategic Plan consultations also pointed out that if member States in the Asia-Pacific region are to rapidly expand their technology base to respond to threats such as climate change, they will need to significantly increase regional cooperation and cross-border technology transfer. Therefore, APCTT's Strategy 3 will focus on strengthening regional networks, institutions, cooperation mechanisms and knowledge management using Communities of Practices through the following pathways:

### ***3.1. Strengthening regional frameworks, networks and institutions***

To fulfil Strategy 3, firstly, APCTT will become a partnership hub on innovative and emerging technology areas by strengthening regional networks among member States and technology support agencies (beginning with ESCAP's five regional institutions and ESCAP's Sub-regional Offices and other global networks such as for Climate Technology Centre and Network (CTCN) and others. APCTT will provide thematic, highly connected, and interactive platforms for technical personnel in frontier and niche areas to exchange ideas and support each other's nations for policy making, capacity building, technology cooperation and transfer of new and emerging technologies. APCTT will also expand its partnerships with private & expert institutions on innovative technologies and link interested member States to the same for long-term support through institutional partnerships. APCTT will also build partnerships with key industry associations, which will be crucial to reach out to and to provide support to the private sector enterprises in the member States. APCTT will continue to use international and regional conferences and expert group meetings as mechanisms for sharing technological innovations and ideas. Additionally, APCTT will work with regional apex organisations such as the Asia-Pacific Economic Cooperation (APEC), Association of South East Asian Nations (ASEAN) and others to create policy space for facilitating cross-learning on emerging technologies.

### ***3.2. Facilitate cross-border knowledge management***

The second pathway APCTT will follow under Strategy 3 will be setting up robust and inclusive knowledge-sharing and management systems among APCTT member States. For this, APCTT will act as a connector for its member States to regional and global digital databases and compendiums on innovative and emerging technologies and providers. Additionally, APCTT will enhance the digital accessibility of the guidebooks, thematic papers, periodicals (such as Tech Monitor) and e-Learning courses on relevant areas it will continue to publish. The emphasis in the Strategic Plan 2023-27 will be for APCTT to ensure that digital Knowledge Management methods, collaboration platforms and exchange programmes for young scientists and technical personnel around new and emerging technologies are put in place and are used within member States.

### ***3.3. Strengthen regional cooperation mechanisms on transfer of emerging technologies***

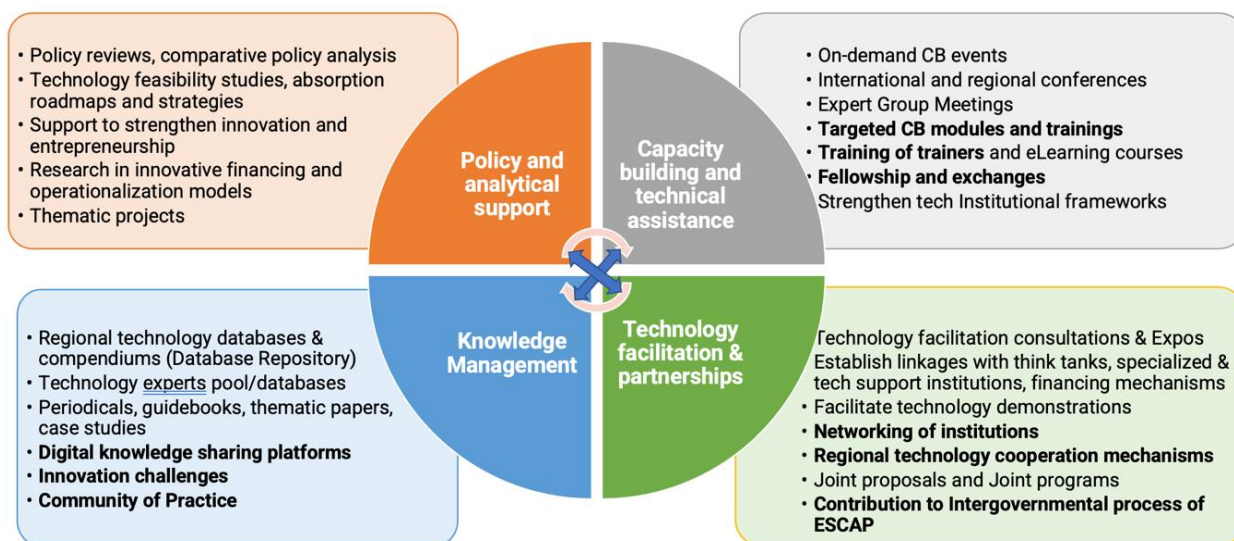
Finally, and as the core of Strategy 3, APCTT will continue to promote regional cooperation within member States. For this, APCTT will target to establish at least two regional institutional cooperation mechanisms/platforms in prioritised technology areas. APCTT has already helped set up such regional cooperation mechanisms in renewable energy, nanotechnology, traditional medicines, and biotechnology areas in the past.

Additionally, APCTT will continue to support technology facilitation consultations and technical support to member States. Feasibility studies and technology facilitation Expos have been effective tools, and APCTT will continue using the same, with a special focus on emerging technologies.

APCTT will also promote cross-learning on prioritised innovative and emerging technologies. Moreover, APCTT will facilitate joint proposal development and targeted joint programmes, especially with Regional Technical Institutes and interested United Nations Country Teams, national governments and institutions. APCTT will also work towards strengthening regional frameworks through the ESCAP Commission for strengthening technology promotion and transfer.

**(a) Implementation Modalities**

Figure 3 presents the key modalities or service lines APCTT will use to implement the above strategies.



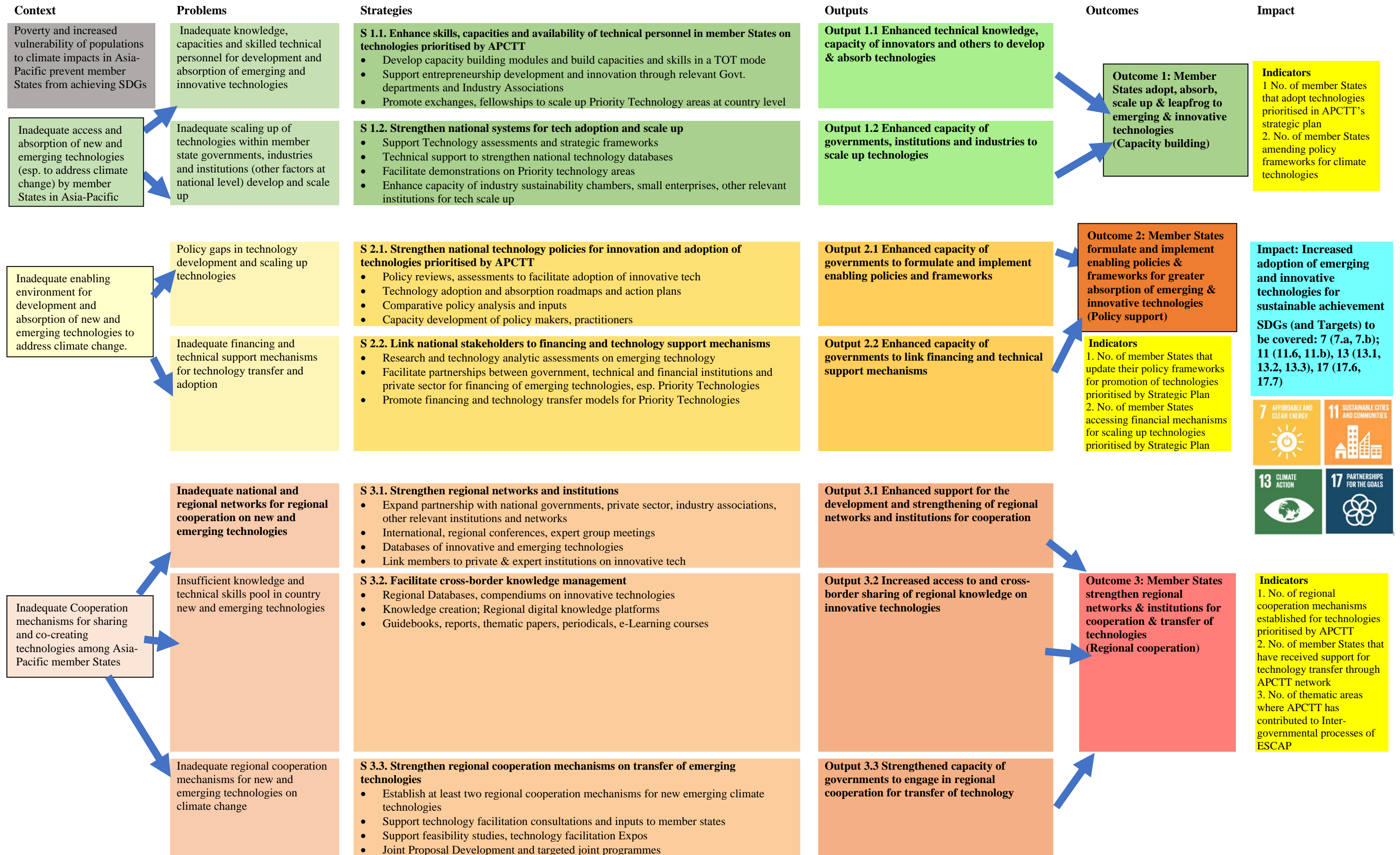
The Theory of Change based on the above strategic areas and modalities for the Strategic Plan 2023-27 is presented in Figure 4 on the next page.

**6. Mapping of proposed strategies vs constraints in the technology ecosystem in Asia Pacific**

Annex 6 presents a matrix mapping the modalities and interventions that will be taken up under each of the Strategies and pathways to address the constraints identified in the sections above.



**FIGURE 4: THEORY OF CHANGE SCHEMATIC FOR APCTT STRATEGIC PLAN 2023-27**



## VI. APCTT's partnership framework

### 7. Key External Stakeholders

Following are the key external stakeholders with whom APCTT will work in the next five years:

Stakeholder	Responsibilities of partners
Country Focal points	Guide and steer APCTT's work programme. Participate in interventions including policy discussions, identifying and getting country technical personnel in accessing capacity building programmes and participating in knowledge management systems.
International emerging technology institutions such as CTCN, WEF, UNTB, etc.	Engage with APCTT and its member States to bring in knowledge, networks, and ideas for technology transfer in technologies prioritised by the Strategic Plan.
Academic institutions (such as IIT, NIF, AIT, IIM)	Design CB modules in emerging and niche technologies to be made available to APCTT member State personnel.
International Universities and Organisations	Partner in knowledge management and CB programmes of APCTT
R&D Institutions	Ensure that innovations in emerging technologies are developed and made available for scaling up to member state governments after validation by APCTT and resource institutions.
UN Country Teams	Engage with national governments to make necessary changes in national policies and ecosystems to support the scaling up of emerging technologies.
Venture Capitalists, Investors, funds	Provide financial mechanisms for technology adoption of identified emerging technologies
Think tanks	Input into the policy and systemic frameworks
Industry Associations and private companies	Ensure transfer of knowledge, skills and capacities to micro, small and medium enterprises and to integrate their concerns in national policy and industry ecosystems
Civil Society Organisations and community	Ensure that communities are able to access requisite technologies and benefit from methods and technologies for enhanced resilience
Science and technology media	Ensure that information about technology changes and the availability of emerging technologies are kept at the forefront of the consciousness of all stakeholders

### 8. Internal Stakeholders

Following are the main internal stakeholders with whom APCTT will work closely

#### *(a) Potential Partnership modalities with Regional Institutions of ESCAP*

Following would be the areas of partnerships with ESCAP Regional Institutes

- Joint proposals - responding to calls from outside donors
- Supporting other Regional Institutions in developing and sharing training modules
- Joint visibility advocacy
- Half-yearly meetings
- Annual Heads of RIs meeting
- Invitees to each other's Governing Councils

#### *(b) Collaboration areas between APCTT and ESCAP Divisions*

Following are the prioritised areas of collaboration with ESCAP Divisions identified by APCTT:

- Provide space for Divisions to tap into APCTT networks for all Divisional focus areas

- Build closer partnerships and act as an internal technical support arm to ESCAP Divisions on issues related to technologies prioritised by APCTT's Strategic Plan
- Work together with Divisions on regional events such as Asia-Pacific Climate Week and UNFCCC COP, and ESCAP Commission and Committee sessions.
- Provide support for not just technical solutions but also to address other elements such as environment and inclusion.
- Wider dissemination of the Divisions' work

## **VII. Results APCTT will achieve from 2023-27**

### **9. Results Framework for the Strategic Plan**

Following will be the key results to be achieved under the Strategic Plan 2023-27

#### **Impact: Increased adoption of emerging and innovative technologies for sustainable achievement**

##### **Outcomes**

#### **Outcome 1: Member States adopt, absorb, scale up & leapfrog to emerging & innovative technologies (Capacity building)**

##### *Outputs to achieve Outcome 1*

Output 1.1 Enhanced technical knowledge, capacity of innovators and others to develop & absorb technologies

Output 1.2 Enhanced capacity of governments, institutions and industries to scale up technologies

Key deliverables: On-demand capacity building; Training modules, Training of Trainers (in partnership with eminent institutions); Young Scientist Fellowships; Needs assessments, Demonstrations, etc.

#### **Outcome 2: Member States formulate and implement enabling policies & frameworks for greater absorption of emerging & innovative technologies (Policy support)**

##### *Outputs to achieve Outcome 2*

Output 2.1 Enhanced capacity of governments to formulate/ implement enabling policies and frameworks

Output 2.2 Enhanced capacity of governments to link financing and technical support mechanisms

Key deliverables: Policy reviews; assessments; roadmaps and action plans; research; facilitate partnership for financing of technology transfer, Repository of information and databases; Digital knowledge products, etc.

#### **Outcome 3: Member States strengthen regional networks & institutions for cooperation & transfer of technologies (Regional cooperation)**

##### *Outputs to achieve Outcome 3*

Output 3.1 Enhanced support for the development and strengthening of regional networks and institutions for cooperation

Output 3.2 Increased access to and cross-border sharing of regional knowledge on innovative technologies

Output 3.3 Strengthened capacity of governments to engage in regional cooperation for transfer of technology

Key deliverables: Partnerships, regional conferences, regional databases, guidebooks, reports, e-learning courses; regional cooperation mechanisms, joint programmes, Communities of Practice and multistakeholder platforms; Contribution to ESCAP intergovernmental processes for climate technology, etc.

The Objective tree that represents the above Results framework is given in figure 5:

**Figure 5: The Objective Tree**

