



# A strategy for healthcare decarbonization in the CAREC region: 2026–2030

Updated: 3 November 2025  
Version 3

**For Ministers' Endorsement**  
24<sup>th</sup> CAREC Ministerial Conference  
20 November 2025

# 1 Introduction

This document outlines a strategic approach to healthcare decarbonization for countries within the Central Asia Regional Economic Cooperation Programme (CAREC). It provides a comprehensive package of work to build an evidence base, highlights actionable initiatives, and emphasizes the establishment of a regional community of practice among healthcare stakeholders. This approach aligns with the CAREC Health Strategy 2030 and Regional Investment Framework, the CAREC Climate Change Action Plan and supports regional objectives of addressing climate change impacts, enhancing regional health security, and promoting sustainable healthcare practices.

## 1.1 About this report

This report is structured as follows:

- **Background and rationale:** provides context around current health sector emissions in CAREC and explains how this strategy aligns with the CAREC Health Strategy 2030
- **Overview of the approach:** describes an overview of the proposed approach for this strategy, followed by a detailed description of the three strategic areas of work
- **Strategic Area 1 – evidence base for investment:** describes the key deliverables needed to support decision-making, policy formulation, and investment prioritization for healthcare decarbonization in CAREC countries
- **Strategic Area 2 – implementing targeted “no-regret” actions:** emphasizes the need to implement immediate, high-impact interventions with short payback periods for health systems
- **Strategic Area 3 – regional community of practice for health decarbonization:** highlights the importance of regional collaboration, knowledge sharing, and capacity building among CAREC member states
- **Timeline for implementation:** sets out the phases and milestones for rolling out the strategy from 2026 to 2030
- **Annexes:** summarizes the climate targets and healthcare sustainability policies and priorities in CAREC countries; presents the inputs to the draft strategy from the joint CAREC Working Groups on Health and Climate Change meeting

## 1.2 Purpose

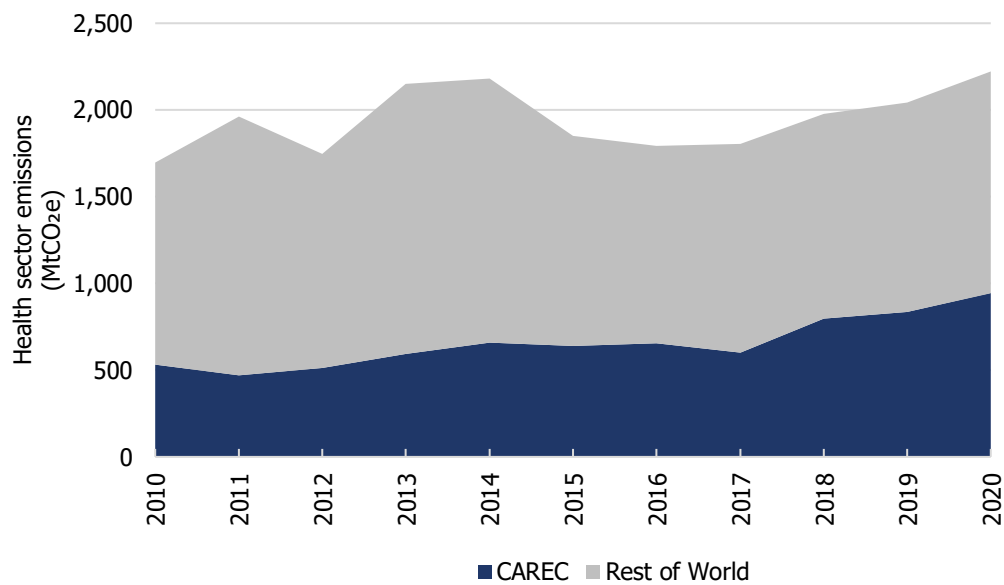
This report sets out a recommended strategy for CAREC countries that can serve as the foundation for transformational decarbonization action across health system delivery in the region. This approach was initially presented at joint meeting of the CAREC Working Groups on Health and Climate Change meeting on 8 April 2025, with this document providing background briefing in support of presentations and wider discussion. Feedback from that consultation process has been incorporated into this revised strategy.

## 2 Background and rationale

Greenhouse gas (GHG) emissions from the healthcare sector constitute a significant share of total emissions at both global and national scales. The sector currently accounts for approximately 5–8% of global emissions and, without decisive action, are expected to triple by 2050.

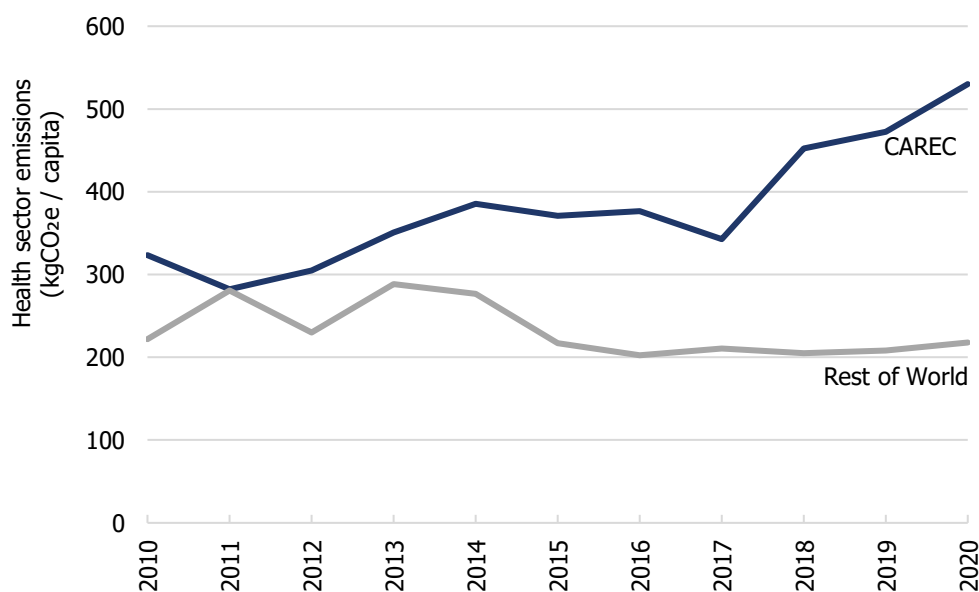
The CAREC region – home to two billion people, 18% of global gross domestic product, and approximately 40% of healthcare sector emissions (Figure 1, Figure 2) – has significant potential to reduce health sector emissions.

**Figure 1. Total healthcare sector emissions in CAREC vs rest of the world (2010-2020)**



Source: Lancet Countdown on Health and Climate Change

**Figure 2. Per capita healthcare sector emissions in CAREC vs rest of the world (2010-2020)**



Source: Lancet Countdown on Health and Climate Change

Around the world, healthcare sustainability and decarbonization are gaining momentum. Over 90 countries have endorsed the COP26 Health Commitments and have joined the WHO-led Alliance for Transformative Action on Climate and Health (ATACH)<sup>1</sup>, with many setting national targets for low-carbon or net-zero healthcare. Leading health systems have adopted formal climate and health action plans that include emissions baselining, procurement reform, energy efficiency, and low-carbon models of care. These efforts demonstrate that healthcare decarbonization is achievable and can deliver co-benefits such as cost savings, improved health outcomes, and greater resilience – offering valuable models that CAREC countries can adapt and build upon.

Given the region’s vulnerability to climate impacts and its increasing contribution to global emissions, healthcare decarbonization is both a necessity and a significant economic opportunity, estimated at USD95–125 billion by 2030.<sup>2</sup> The CAREC Health Strategy 2030 underscores the importance of regional health cooperation and the necessity for robust, coordinated responses to cross-border health threats, including those driven by climate change.

## The CAREC Climate Change Action Plan

The CAREC Climate Change Action Plan (CCAP) builds upon the regional [Climate Change Scoping Study](#) and [Regional Action on Climate Change: A Vision for CAREC](#) (CAREC Climate Change Vision) endorsed at the 22<sup>nd</sup> CAREC Ministerial Conference in November 2023 in Tbilisi, Georgia.

The CCAP provides a comprehensive framework to address climate change challenges and advance regional climate actions through enhanced coordination among the various CAREC sector committees and working groups. A rolling 3-year plan spanning initially 2025–2027 the CCAP focuses on achieving a climate-resilient and low-carbon CAREC region through four thematic action areas, including the integration of climate and health for both resilience and mitigation activities

In addition, the Regional Investment Framework on Health integrates joint actions on climate and health<sup>3</sup>. In line with this overarching framework, a regional decarbonization strategy is pivotal in advancing sustainable, climate-resilient health systems.

---

<sup>1</sup> Alliance for Transformative Action on Climate and Health (ATACH). <https://www.atachcommunity.com/atach-community/countries-and-areas/> (accessed 1 October 2025).

<sup>2</sup> Estimated from potential global green economy economic opportunity estimate of \$9-12 trillion by 2030 (McKinsey, 2022), multiplied by the estimated amount spent on healthcare globally (about 6% of GDP) as an indicator of the level of economic activity in that sector, multiplied by CAREC region’s estimated amount share of global GDP (about 18%).

<sup>3</sup> CAREC Climate Change Action Plan. March 2024. [Updated-RIF\\_Mar-2024.pdf](#)

### 3 Overview of the approach

An urgent response to climate change requires action in **three strategic areas** (Figure 3). These pillars are mutually reinforcing, supporting immediate progress, long-term strategic planning, and lasting capacity for sustainability implementation. This proposed strategy aims to deliver the evidence base, targeted high-impact measures, and collaborative network needed for accelerated health care decarbonization across the CAREC region.

**Figure 3. Focus areas for CAREC's decarbonization strategy**

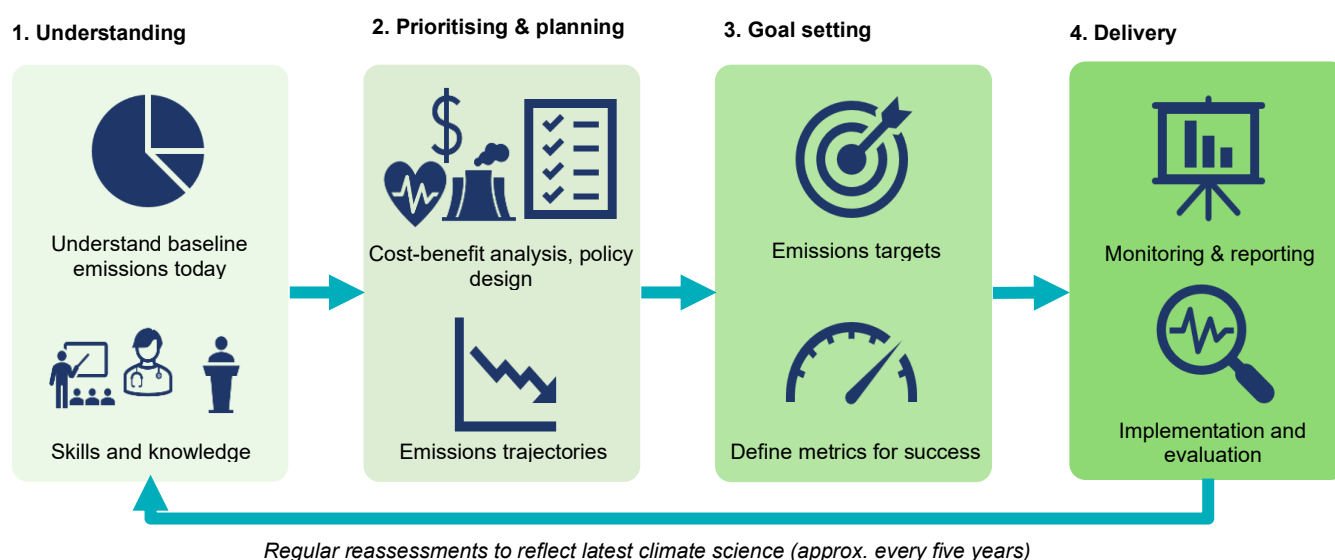


The following sections provide detail in operationalizing these areas in the CAREC region.

## 4 Strategic Area 1: Evidence base for investment

An effective strategy for healthcare decarbonization requires more than just emissions measurement. It must also enable evidence-based target setting and policy planning, provide a basis for ongoing monitoring and reporting, and develop the skills and understanding to implement and embed emissions measurement across health systems (Figure 4).

**Figure 4: An evidence-based approach to decarbonizing healthcare**



Source: Centre for Sustainable Medicine (CoSM), National University of Singapore

This proposed strategy for CAREC identifies three key deliverables (Table 1). The strategy aims to deliver a **baseline**, **roadmap**, and an **action plan** for each CAREC country, developed through a collaborative process with the ministries of health and tailored to their national contexts and priorities. This collaborative execution process is critical to the strategy's success, as it depends on active commitment and buy-in from key decision makers across CAREC countries. This will ensure that deliverables under this strategy are not only understood and accepted but also implemented and fully integrated into national policies (see Section 4.4).

**Table 1: Overall approach to preparing the evidence base for decarbonizing CAREC health systems**



Deliverable:	1 – Emissions Baseline	2 – Decarbonization Roadmap			3 – Decarbonization Action Plan	
Key step:	1. Baseline emissions inventory	2. BAU projection	3. "No-regrets" mitigation options	4. Target trajectory	5. Decarbonization roadmap	6. Action plan
<b>Output:</b>	Comprehensive assessment of scope 1, 2, and 3 emissions associated with health sector's activities and supply chain.	A business-as-usual (BAU) projection of emissions, factoring in growth of the health sector and decarbonization of the global economy.	Identification of key mitigation actions and estimation of emissions reductions associated with each.	Target trajectory for emissions reduction based on national targets and policies.	Combined visualisation of BAU projection, target trajectory and projected emissions reductions from mitigation options.	Based on national priorities and capacities, detailed summary of suggested actions and next steps to implement decarbonization actions.
<b>Outcomes:</b>	<ul style="list-style-type: none"> <li>Quantification of sector-wide emissions</li> <li>Understanding of emissions hotspots</li> </ul>	<ul style="list-style-type: none"> <li>Definition of emissions reduction goal</li> <li>Exploration of future emissions trends for the sector without climate action being taken</li> <li>List of potential decarbonization actions and the scale of opportunity offered by each</li> <li>Analysis of major opportunities and prioritization of decarbonization measures</li> </ul>			<ul style="list-style-type: none"> <li>Concrete actions to deliver decarbonization initiatives aligned with national priorities and contexts</li> </ul>	

BAU: business-as-usual

## 4.1 Baseline emissions inventory

A baseline emissions assessment is a crucial step in any decarbonization initiative at the national level, but is only beneficial if it drives overall system improvement. This deliverable aims to provide an understanding of the overall climate impact of healthcare in each CAREC country, while highlighting any structural differences between healthcare footprints within the region and internationally.

A hybrid methodology – combining spend-based and activity-based data – will be used for each country where data is available, enabling a more accurate and context-sensitive assessment of emissions across Scopes 1, 2, and 3. The use of a consistent, yet adaptable model across countries will also enable regional benchmarking and shared learning to inform future action.

Through this process, countries can identify emission hotspots within the system and opportunities for intervention. This will be the foundation for the subsequent steps outlined in this strategy.

### Process:

- Define the scope and boundary of the baseline emissions, co-designing the methodological approach with each country
- Engage data owners to identify sources of financial and activity data that can be collected with minimal burden

- Conduct a comprehensive assessment of Scope 1, 2, and 3<sup>4</sup> emissions associated with each health sector's activity and supply chain, ideally using a hybrid approach that combines spend-based modelling with activity-based data.

## 4.2 Decarbonization roadmaps

A national decarbonization roadmap trajectory will be developed for each CAREC health system, alongside a region-wide roadmap summarising overall findings. These roadmaps will build on the baseline emissions and scenario modelling detailed below. They will serve as public-facing summaries of the programme's findings – describing current emissions, projecting future emissions under a business-as-usual (BAU) scenario, quantifying the technical mitigation potential of sustainable interventions, and presenting a target reduction trajectory.

### 4.2.1 Business-as-usual (BAU) scenario

This component explores how emission levels from national and regional health sectors are expected to change over the coming decades without concerted action on emissions from the sector. Understanding potential future emissions levels will enable the country to have a better sense of the level of emissions reductions needed to achieve its decarbonization targets.

The BAU projection will be incorporated into the decarbonization roadmap and provide the foundations for a decarbonization trajectory. The baseline emissions footprints identified in the first step will serve as the starting point for these projections.

#### Process

- Develop projections of economic growth, changes in health spending, and decarbonization of the wider global economy
- Identify of decarbonization trends and/or assumptions of key supply chain sectors
- Model the BAU scenario against the baseline emissions of the country

### 4.2.2 "No-regret" mitigation options

A core element of this decarbonization strategy is the immediate implementation of "no-regret" measures right away, rather than delaying action. Under the proposed decarbonization roadmaps, particular emphasis will also be placed on quantifying the mitigation impact of these interventions and modelling their impact against BAU projections (Figure 5).

Assessing these key decarbonization actions and their projected emissions reductions is key to understanding the health sector's pathway to meeting its climate targets. By modelling each mitigation measure against its BAU scenario, countries can determine how individual actions shape the overall emissions footprint and contribute to an accelerated decarbonization trajectory.

#### Process:

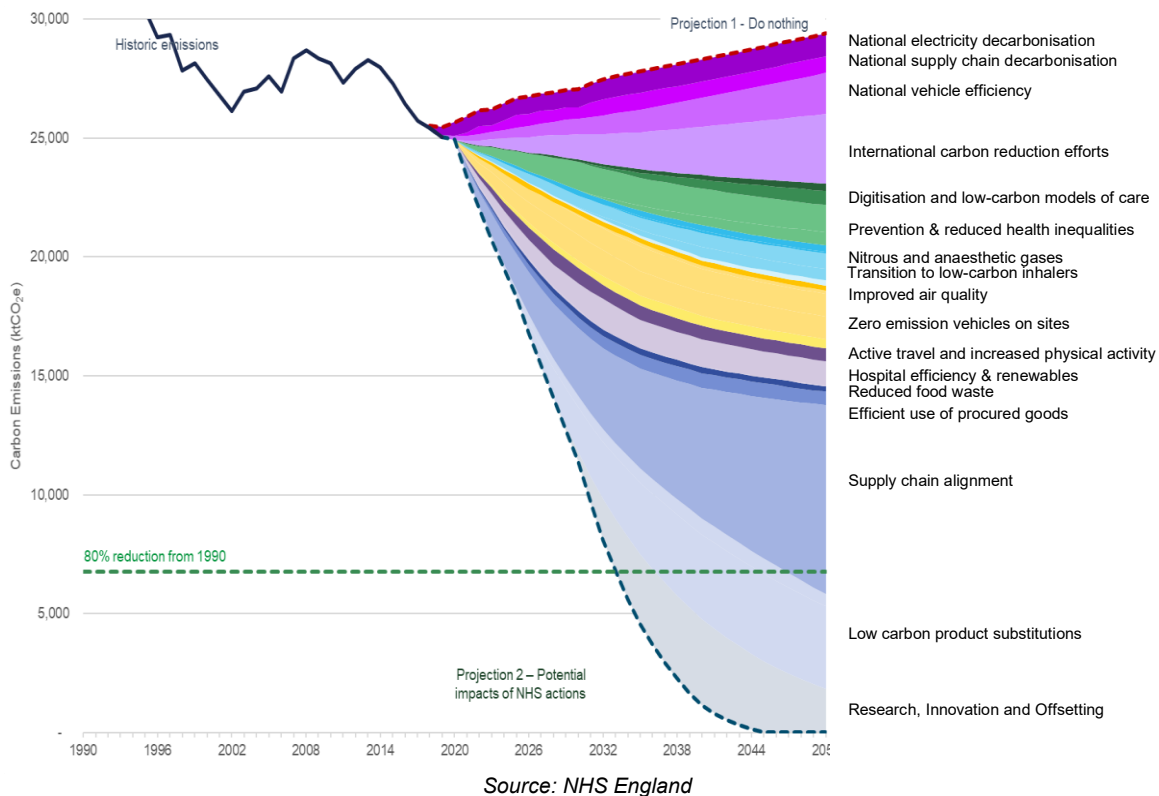
- Perform qualitative analysis of identified mitigation options, and opportunities and challenges in the country and/or region

---

<sup>4</sup> This framework is summarized in <https://pubmed.ncbi.nlm.nih.gov/33581070/>: **Track 1 (Scope 1)**: Direct emissions from NHS-owned or controlled sources, such as hospital energy use and fleet vehicles. **Track 2 (Scope 2)**: Indirect emissions from purchased energy (mainly electricity). **Track 3 (Scope 3)**: All other indirect emissions, especially from the supply chain, which accounts for the majority (over 60%) of the NHS's total carbon footprint.

- Identify of a shortlist of 'no-regret' actions that deliver one or more of: rapid payback period; low capital barriers; significant co-benefits; builds climate resilience
- Assess the technical mitigation potential against BAU pathways, providing a national and/or regional trajectory if all actions were implemented. This "no-regret" projection is not expected to get to zero emissions, as it focuses on the immediate and quick wins in health decarbonization
- Conduct training for local staff to explain the benefits and ways of proper implementation, to ensure continuity of previous activity after implementation 'no-regret' actions

**Figure 5. A net-zero emissions trajectory for the healthcare sector in the UK**



### 4.2.3 Target trajectory

A reference decarbonization target trajectory for the health sector will be identified based on input from the health ministries, alongside consideration of national and regional emissions reduction targets and contextual factors. The target is intended to provide an indicative trajectory to serve as a point of comparison for the BAU scenario and modelled impacts of "no-regrets" emissions reductions actions developed, helping to communicate the scale and limitations of the decarbonization efforts modelled.

A standard 'contract-and-converge' approach to targets might not be suitable in this setting. Instead, national systems will be encouraged to define their own targets, in part based on the technical potential of mitigation actions as identified in the previous step. It is therefore also important to note that there are a range of additional policy considerations and stakeholder engagement that would be needed before any of the national targets proposed under this step can be formalised (see Section 4.4 for more details).

### Process

- Conduct in-depth engagement to identify national target setting considerations and priorities for each country

- Model the target trajectory, comparing with the BAU and mitigation impacts scenarios

### 4.3 Decarbonization Action Plans

The deliverable will build upon the findings of earlier outputs to prepare national action plans focused on implementing the interventions highlighted through the development of decarbonization trajectories.

Each action plan will be tailored for policymakers and decision-makers in the respective country and will outline short-, medium-, and long-term priorities for healthcare decarbonization. Plans will also include cost-benefit analysis of proposed interventions, recommendations for continuous improvement on data collection, monitoring and reporting, as well as key performance indicators (KPIs) to track progress. A stakeholder map will also be provided to support inclusive and effective implementation.

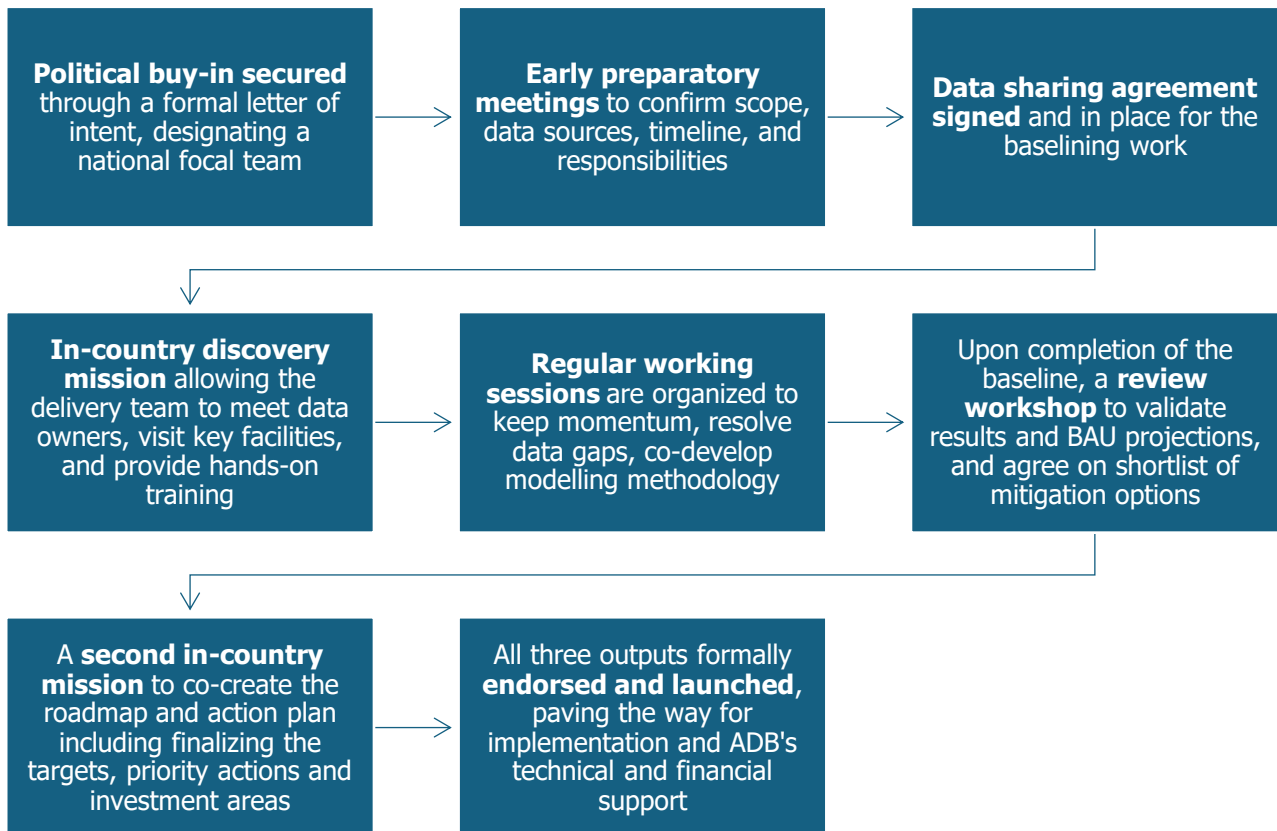
#### Process

- Conduct desk-based review of actions, barriers, opportunities, relevant national and international policies and programs, and key stakeholders
- Co-develop priority short-, medium-, and long-term actions based on desk review and roadmap outcomes
- Promotion of collaboration of public-private healthcare sector in developing national decarbonization actions and policies

### 4.4 Execution process

The success of delivering this strategy – and in particular Strategic Area 1 – hinges on strong country ownership, clear data sharing protocols, and continuous engagement between ministries of health, the ADB, and technical partners. The work at the country level will involve several steps beginning with high-level political commitment and culminating in the formal endorsement of each country's baseline, roadmap, and action plan (Figure 6).

**Figure 6. Generic execution process of Strategic Area 1**



## 5 Strategic Area 2: Implementing targeted “no-regret” actions

“No-regret” interventions are measures that offer clear benefits regardless of how climate variables shift over time. They usually have short payback periods, improve patient outcomes, and enhance the operational efficiency of health services. These interventions support the CAREC Health Strategy’s broader objectives under its second, third and fourth pillars – technical preparedness, reliable supply and resilient health facilities– by cutting operational costs and improving resource sustainability.

Given the urgency and the immediate advantages these actions bring, CAREC countries are encouraged to begin implementation now. Many practical, low- or cost-saving measures can and should be rolled out before a full a baseline, roadmap, or action plan are finalized. Several actions that can be introduced or scaled up at the regional- and national level are summarized in Table 2.

**Table 2. List of sample “no-regret” interventions**

<b>“No-regret” action</b>	<b>Sample interventions</b>
Switching to low-carbon inhalers and anaesthetic gases	Encouraging use of Dry Powder Inhalers (DPIs) or Metered Dose Inhalers (MDIs) with lower global warming potential propellants and using less harmful anaesthetic agents (e.g., sevoflurane vs. desflurane)
Shifting from single-use to reusable, low-carbon medical devices	Adopting reusable medical items, when safe and feasible
Promoting low-carbon procurement and sustainable pharmacy practices	Reducing unnecessary prescribing, encouraging responsible disposal of pharmaceuticals, and collaborating with suppliers to source greener products
Optimizing operating theaters	Turning off overhead lights when not in use, strict HVAC controls, switching to low-flow anesthesia, using energy-efficient sterilization equipment
Embedding sustainability in clinical pathways	Incorporating carbon-cost considerations into clinical guidelines (e.g., choosing lower-carbon imaging protocols or diagnostic tests without compromising patient outcomes)
Improving waste segregation, reduction, and recycling	Segregating infectious waste from non-hazardous waste, reprocessing single-use devices where safe/allowed, and recycling
Transitioning to renewable energy sources	Switching to sources such as solar or wind and where possible, on-site renewables and microgrids add resilience
Investing in low-carbon and patient-centred healthcare buildings which could also support implementation of carbon market projects under Article 6.2 of the Paris Agreement.	Upgrading lighting (e.g., LED), improving insulation, optimizing HVAC systems, and using smart building controls

“No-regret” action	Sample interventions
Shifting to electric ambulances and fleet vehicles	Adopting electric or low-emission vehicles for ambulance services and other hospital / system fleet needs
Promoting active travel and efficient transport for staff and patient journeys	Encouraging use of bicycles, carpooling, e-vehicles, public transport options where possible
Prioritizing community care, telehealth, and digital care pathways	Expanding telemedicine and shifting toward virtual consultations and remote patient monitoring
Adopting sustainable food services and plant-forward menus	Shifting cafeteria and patient meals toward more plant-based options and sourcing food locally

DPI: Dry Powder Inhalers

MDI: Metered Dose Inhalers

HVAC: heating, ventilation, and air conditioning

LED: light-emitting diode

Each country’s roadmap and action plan will highlight the most cost-effective opportunities for decarbonization, which can be a starting point for Strategic Area 2. Implementation of these actions can be phased based on each country’s available resources, institutional capacity, availability of data and readiness – starting with quick wins that offer immediate benefits, and progressively advancing to more complex interventions as systems mature and enabling conditions strengthen. Targeted capacity-building and technical assistance in emissions measurement, monitoring, and reporting will be vital for enabling effective national implementation. Readiness support might be needed in developing a business case to secure dedicated financing required for implementation. This may include tapping into innovative climate financing mechanisms, blended finance arrangements, and/or public-private partnerships – particularly for high-cost interventions.

## 6 Strategic Area 3: Regional community of practice for health decarbonization

Investing in local capacity and bringing together a community of experts will drive meaningful and long-term change, grounded in context, culture, and capacity. Through the implementation of this strategy, a network of health policymakers and practitioners shall also be mobilised across the region.

This will form a future facing community of practice which will enable knowledge sharing and collaboration as decarbonization measures are introduced through health care delivery.

**Figure 7. Benefits of regional collaboration on healthcare decarbonization across CAREC**

<b>A coordinated approach to health system decarbonization</b>	<b>Joint action to influence shared international supply chains</b>
<b>CAREC as a powerful voice in international health sustainability communities</b>	<b>Health professionals and policymakers learning from best-practice in the region</b>
<b>Comparable and cross-compatible data, targets and policies</b>	<b>Mobilize investments that benefit patients and improve efficiency</b>

This regional community provides the glue that connects the evidence, investment, and implementation of this strategy in CAREC. This network will be crucial in supporting the successful delivery of roadmaps and action plans, on-the-ground implementation of decarbonization measures, and further work needed to sustain these efforts in the long-term (e.g. tracking, monitoring and reporting of emissions).

It is recommended that this network be created and hosted within the CAREC platform, supported by the ADB and other technical partners. A starting point could be working jointly through the existing Working Groups on Health and Climate Change through a Sub-Working Group on Climate and Health. Training and mentoring sessions to support this network in building capacity to footprint emissions, support the development of a roadmap and action plan, among others will be delivered throughout the implementation period of this strategy.

This regional community could be extended to include implementation and monitoring of the minimum standards for climate-resilient health facilities, developed through the Working Groups on Health and Climate Change, as well as the integration of Early Warning Systems and Health for heat risk and air pollution.

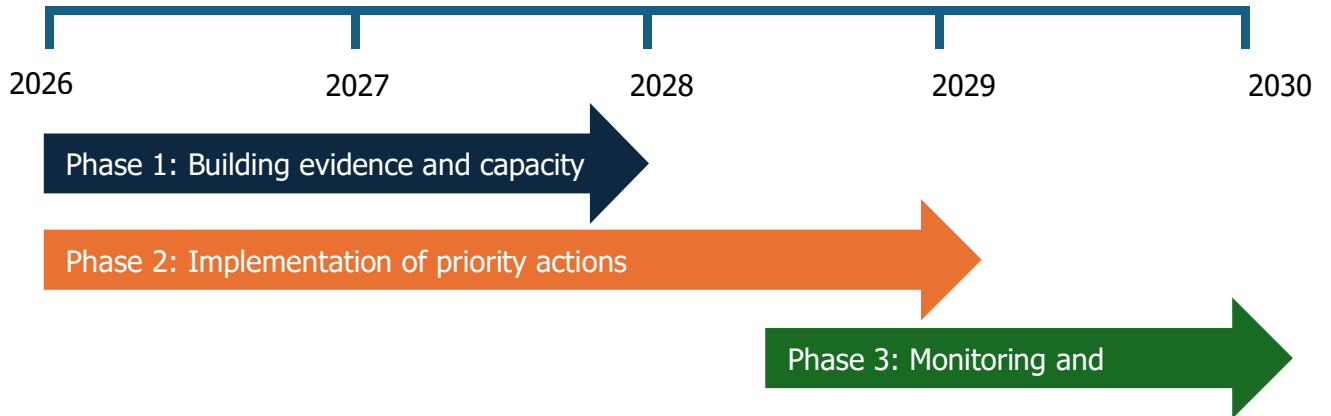
## 7 Timeline for implementation

The healthcare decarbonization strategy for CAREC spans 2026 to 2030 and is structured in three deliberately overlapping phases, enabling countries ready to move quickly to begin at once, while allowing other countries sufficient time to build capacity before fully engaging (Table 3, Figure 8).

**Table 3. Key activities per phase of implementation**

Phase	Period	Key activities and milestones
<b>Phase 1:</b> Building evidence and capacity	Jan 2026 – Jun 2028	<p>Strategic Area 1 – Emissions baselines, roadmaps, and action plans</p> <ul style="list-style-type: none"> <li>- Baseline in countries will commence in staggered cohorts but work in parallel (Months 1-18)</li> <li>- Rapid-start nations can complete their baseline within the first 12 months, then proceed to roadmapping and action planning (Months 12-24)</li> <li>- More details on the general execution of this work can be found in the next section</li> </ul> <p>Strategic Area 3 – Community of practice</p> <ul style="list-style-type: none"> <li>- Regional secretariat and an initial group of practitioners and policymakers can be formed within the second half of year 1 (Months 6-12)</li> <li>- Initial training workshops and mentoring sessions on carbon footprinting (Months 6-12); community envisioned to support roadmapping and action planning in countries (Months 12-24)</li> </ul>
<b>Phase 2:</b> Implementation of priority actions	Jan 2026 – Dec 2029	<p>Strategic Area 2 – “No-regret” actions</p> <ul style="list-style-type: none"> <li>- Immediate implementation of quick-win projects (when possible) starting year 1; while pipeline projects coming from roadmaps and action plans can begin / be ready for financing from Months 18</li> <li>- Readiness support from the ADB can be made available for project preparation of select pipeline projects</li> </ul>
<b>Phase 3:</b> Monitoring and evaluation	Jun 2029 – Dec 2030	<ul style="list-style-type: none"> <li>- Monitoring framework to be developed within Year 1 (2026) of implementation with an end-of-project evaluation by the second half of Year 5 (2030)</li> <li>- Results to feed into next-cycle strategy and inform further ADB investment programming on healthcare decarbonization in CAREC</li> </ul>

**Figure 8. Timeline for implementation**



## Annex 1: Summary of climate targets and healthcare sustainability policies and priorities in CAREC countries

A rapid review of the national climate targets and key policies on climate and health was conducted with a summary presented in Table A1.

**Table A1. Summary of climate targets and healthcare sustainability policies and priorities**

CAREC Country	Commitment to net-zero targets?	Nationally determined contribution (NDC) target	Key health and climate policies
Afghanistan	No	Commits to reducing its emissions by 13.6% by 2030 compared to BAU, conditional on international support.	No concrete healthcare sustainability policies have been identified.
Azerbaijan	No	Commits to reducing its emissions by 35% by 2030 and by 40% by 2050 from the 1990 level, conditional on international support. Also to increase renewable power capacity to 30% by 2030.	Over the course of its COP29 Presidency, Azerbaijan became a member of ATACH, and its Minister of Health, Teymur Musayev, has emphasized the importance of a climate-resilient healthcare workforce in addressing the health effects of climate change.
People's Republic of China	Yes – by 2060	Commits to reducing its CO2 emissions per unit of GDP (carbon intensity) by over 65% in 2030 from the 2005 level.	The PRC supports the establishment of climate-resilient, low-carbon health systems through several key policies, including the China National Climate Change Health Adaptation Action Plan 2024–2030 and the National Climate Change Adaptation Strategy 2035.
Georgia	Yes – by 2050	Commits to reducing its emissions by 35% below the 1990 level by 2030, conditional on international support.	Georgia's National Environment and Health Action Plan 2018–2022 (NEHAP 2) integrates public health concerns into its climate change adaptation and mitigation strategy. Furthermore, Georgia works closely with ADB in developing these adaptation and mitigation strategies, as described in its Country Partnership Strategy (2024-2028). Georgia is also a member of ATACH.
Kazakhstan	Yes – by 2060	Commits to reducing its emissions by 15% (unconditional) and by 25% (conditional on international support) compared to the 1990 level.	No concrete healthcare sustainability policies have been identified.
Kyrgyz Republic	No	Commits to reducing its emissions by 16.63% by year 2025 and by 15.97% by year 2030 compared to business-as-usual (unconditional), and by	The Kyrgyz Republic established extensive support for climate-resilient healthcare systems through the Programme of The Health Sector of the Kyrgyz Republic on Climate Change

CAREC Country	Commitment to net-zero targets?	Nationally determined contribution (NDC) target	Key health and climate policies
		36.61% by year 2025 and by 43.62% by year 2030 compared to BAU according to БКО scenario (conditional on international support).	Adaptation for 2011–2015 years. This policy is further supported by the National Strategy for Sustainable Development 2018–2040 and the “Zhany Doorgo – kyrk kadam” (40 Steps to the New Era) 2018–2023 government program. The Program of the Government of the Kyrgyz Republic for the Protection of Public Health and Development of the Healthcare System for 2019–2030 “A Healthy Person – a Prosperous Country” (Resolution of the Government of the Kyrgyz Republic dated 20.12.2018 No. 600) and the Action Plan for 2025–2030 (Resolution of the Cabinet of Ministers of the Kyrgyz Republic dated 26.12.2024 No. 802).
Mongolia	Yes – by 2050	Commits to reducing its emissions by 22.7% compared to BAU by 2030, excluding LULUCF (unconditional) and by 27.2% compared to BAU by 2030, excluding LULUCF (conditional on international support).	While Mongolia’s Fourth National Communication (2024) acknowledges that climate change presents a sizable threat to public health, no concrete healthcare sustainability policies have yet been developed.
Pakistan	No	Commits to reducing its emissions by 50% by 2030 compared to BAU (15% unconditional, 35% conditional on international support).	Pakistan formally committed to establishing climate-resilient health systems at COP26. It reinforced this commitment in 2023 by developing a detailed Framework of Action titled Towards climate-resilient health systems in Pakistan. It is also a member of ATACH.
Tajikistan	No	Commits to not exceed 60-70% (unconditional), and 50-60% (conditional on international support) of the 1990 level by 2030.	While Tajikistan’s National Strategy for Adaptation to Climate Change (2019–2030) acknowledges the potential risks that climate change poses for the country’s public health system, the country is yet to develop a concrete policy that addresses healthcare sustainability.
Turkmenistan	No	Commits to reducing its emissions by 20% compared to the BAU scenario in 2030, relative to the 2010 level.	While the National Strategy of Turkmenistan on Climate Change (2021) acknowledges the detrimental impacts of climate change on public health, and the National Action Plan 2020-2025 establishes health adaptation measures, concrete policies that

CAREC Country	Commitment to net-zero targets?	Nationally determined contribution (NDC) target	Key health and climate policies
			address healthcare sustainability are yet to be developed.
Uzbekistan	No	Commits to reducing emissions per unit of GDP (carbon intensity) by 35% by 2030 compared to the 2010 level.	No concrete healthcare sustainability policies have been identified.

ATACH: Alliance for action on climate change and health

BAU: Business-as-usual

LULUCF: Land Use, Land-use Change and Forestry

## Annex 2: Summary of inputs from the 6<sup>th</sup> CAREC Health Working Group meeting

Summary of the group discussion to provide feedback on draft Regional Decarbonization Strategy on 08 April 2025, Bishkek, Kyrgyz Republic.

**Table A2. Summary of inputs from the 6th CAREC Health Working Group**

Group	Inputs
<b>Table#5</b> Azerbaijan	<ul style="list-style-type: none"> <li>• Awareness and training for health care staff, education and training for medical workers;</li> <li>• To switch to low-carbon technologies in anesthesiologic rooms, use single use disposables, change lamps, improve ventilation system and power and optimize HVAC (heating ventilation and air conditioning) system;</li> <li>• Optimization of medical waste for company and hospitals;</li> <li>• Shipment to electrical vehicles;</li> <li>• Digitalization of health care system, implementation of telemedicine</li> </ul>
<b>Table#3</b> Pakistan	<ul style="list-style-type: none"> <li>• Public awareness program – community not familiar about climate change;</li> <li>• Collaboration and elaboration Health sector with not health sector;</li> <li>• Embedding sustainability and implementation of telemedicine</li> </ul>
<b>Table#4</b> Uzbekistan	<ul style="list-style-type: none"> <li>• Transition to renewable energy sources</li> <li>• Construction of "Green Hospitals"</li> <li>• Investments in low-carbon medical treatment technologies</li> <li>• Transition to electric vehicles that reduce carbon dioxide emissions</li> <li>• Collection, sorting and disposal of medical waste, their recycling to reduce greenhouse gas emissions</li> <li>• Encouraging the purchase of low-carbon goods, doctors prescribe a lot of medicines, it is necessary to reduce medical waste</li> <li>• Revision of health care facilities' plans, equipping them with renewable energy sources</li> <li>• landscaping, landscaping, creating a microclimate in the hospital useful for the recovery of patients</li> <li>• Introduction of telemedicine for the convenience of patients and doctors;</li> <li>• Resolving political issues, developing regulatory aspects;</li> <li>• Intersectoral cooperation, effectiveness, development of SOPs and others</li> <li>• Resolving political issues, developing regulatory aspects;</li> <li>• Intersectoral cooperation, effectiveness of events, development of SOPs and others</li> <li>• Technical support in developing documents, experience exchange between CAREC countries;</li> <li>• Permanent coordination intersectoral group on climate change and health threats;</li> <li>• Financing and attracting international investment;</li> <li>• Allocation of special grants for climate change and other issues;</li> <li>• Implementation of tax preferences in countries to support manufacturers of low-carbon technologies and pharmaceuticals</li> </ul>
<b>Table</b> Kyrgyzstan	<ul style="list-style-type: none"> <li>• Establishing a unified national system for health risk assessment and management related to climate change and ecology, using digital technologies for effective public health management.</li> <li>• Strengthening public health services by equipping them with modern medical equipment and supplies to improve quality, accessibility, and equitable delivery of services for prevention, surveillance, health protection, and promotion in the context of climate change, pandemics, and emergencies.</li> <li>• Creating a safe medical waste management system that ensures complete disposal or recycling to reduce greenhouse gas emissions.</li> <li>• Conducting an inventory of medical institutions to equip them with alternative energy sources, including renewable energy.</li> </ul>

Group	Inputs
	<ul style="list-style-type: none"> <li>• Enhancing human resource capacity for the prevention and response to emergencies related to climate change or public health consequences.</li> <li>• Developing and implementing a health sector adaptation plan to climate change impacts on health.</li> <li>• Optimizing public health laboratories by improving their infrastructure and technological capabilities.</li> <li>• Expanding international cooperation in medical science and strengthening scientific capacity in climate change and health research.</li> <li>• Providing technical support in revising regulatory documents and exchanging best practices among CAREC countries on climate change and health challenges.</li> <li>• Developing an information system for climate-related diseases and integrating it into a unified digital ecosystem.</li> <li>• Creating a roadmap for telemedicine development and implementation across regions, including training programs for healthcare professionals.</li> <li>• Securing funding and attracting international investments.</li> </ul>
<b>Table#1</b>	<ul style="list-style-type: none"> <li>• Economical analysis;</li> <li>• Essential rate of return, benefits, baseline assessment;</li> <li>• National governmental intersectoral policy;</li> <li>• Consultation and transparency</li> </ul>
<b>Table#10</b>	<ul style="list-style-type: none"> <li>• Financial support to country;</li> <li>• Adopt strategic documents on country level for Ministry of economic, Ministry of Health, Ministry of Ecology, Ministry Agriculture;</li> <li>• Implement world best practice for decarbonization with risk analysis, success story and etc.;</li> <li>• Capacity building and improvement human resources potential taking into account staff turnover, Training of Trainers for health workers on regular basis.</li> </ul>

HVAC: heating ventilation and air conditioning