

# A strategy for healthcare decarbonization planning in the CAREC region

## 1. Introduction

This document provides a high-level proposed strategy for the development of a suite of decarbonization resources for health systems in Central Asia Regional Economic Cooperation Countries (CAREC) nations and the region as a whole. This approach would lead to the creation of an evidence base that highlights key actions and initiatives to be implemented across the region, and the establishment of a community of practice across health ministries and practitioners who can share best practice and support accelerated action.

### 1.1 About this report

This report is structured as follows:

- **Background and rationale:** context around current health sector emissions and ADB's previous work in this area.
- **Proposed approach:** an overview of the proposed approach for this strategy, followed by a detailed description of the analysis steps required to deliver the evidence base to be targeted through this work.
- **Deliverables:** summary of the expected outputs to be achieved through implementation of this strategy.
- **Conclusions and next steps:** a short summary of the main conclusions and considerations to be taken from this strategy, as well as next steps and upcoming decision points.

### 1.2 Purpose

This report provides a suggested strategy for CAREC nations to develop resources and a community of practice that can be the foundation for transformational decarbonization action across health system delivery in the region. This approach will be presented at the WGHCC meeting on 7-9 April 2025, with this document providing background briefing in support of presentations and wider discussion.

## 2. Background and Rationale

### 2.1 Background to ADB Technical Assistance

ADB is leading efforts to put health at the centre of climate change action in Asia and the Pacific.<sup>1</sup> In September 2023, ADB supported the Group of 20 (G20) New Delhi Declaration, in which G20 health ministers committed to prioritise and mobilise resources for inclusive, adaptive, resilient, low-carbon, and sustainable health systems.<sup>2</sup>

The CHI was launched by ADB at the United Nations Framework Convention on Climate Change Conference, Conference of the Parties (COP) 28 as a key initiative under ADB's Climate Change Action Plan, 2023–2030.<sup>3</sup> The CHI aims to generate practical knowledge, policy advice, foster partnership and financing for climate-health investments in developing member countries (DMCs).

#### TA9950 – Operationalization of Climate and Health Action

Under the Asian Development Bank's Climate and Health Initiative (CHI) a program on health system decarbonization has worked with 5 countries to support health system decarbonization.

##### Aims:

- Develop a standardised approach for health care decarbonisation planning in DMC countries
- Trial approach with demonstrator DMCs
- Produce key deliverables providing a foundation for health decarbonisation programmes in demonstrator nations
- Collate findings into toolkit that enables wider adoption of approach across DMC network

##### Project partners:

ARUP



### 2.2 Rationale

Greenhouse gas (GHG) emissions from the health care sector make up a considerable portion of total emissions at both global and national scales. Emissions from the sector comprise ~5.3% of global emissions and are expected to triple by 2050 without intervention.<sup>4</sup>

The health care sector must respond to the growing climate emergency – not only in response to the physical and health-related impacts associated with a changing climate, but also through reducing its own emissions and aligning with the 1.5°C ambition set out in the Paris Agreement. The sector must undergo a transformational change to reach these aims all while maintaining its essential role of providing universal health coverage.

Action on sectoral emissions can be progressed at a number of levels: project, facility, regional, or national. Each will play an important role in transition, however, in order to ensure opportunities are identified and actioned at scale, strategic direction and support at national- or state-levels is a key step. This overall vision can enable engagement and alignment with other actors that efficiently prioritises decarbonization action.

<sup>1</sup> J. Karliner, P. Osewe, M. Neira, D. Arora, L. Galvao, and K.S. Reddy. 2023. Momentum builds for health-care climate action. *The Lancet*. 19 August.

<sup>2</sup> Government of India, Ministry of External Affairs. 2023. G20 New Delhi Leaders' Declaration.

<sup>3</sup> Asian Development Bank. 2023. Climate Change Action Plan 2023–2030. pp.49. Action A.2.2.

<sup>4</sup> Health Care Without Harm. 2021. "Road Map for Health Care Decarbonization: Introduction." <https://accionclimaticasusalud.org/sites/default/files/2021-04/HCW%20Road%20Map%20for%20Health%20Care%20Decarbonization%20-%20Introduction.pdf>

To drastically and effectively reduce a nation's health sector footprint, developing an understanding of current emissions is key. Obtaining this understanding through a data-driven approach can provide the foundation upon which to build and drive effective policy, programming, resource allocation and interventions at a national-level.

Health services and provision can vary significantly country to country, with differences in population demographics, prevalence of certain diseases and health conditions, health sector structure (e.g. public vs. private vs. informal), and attitudes towards treatment practices amongst the causes of such differences. Understanding how this relates to sectoral emissions at the national level is a key step in understanding the approaches most suited to decarbonization within this context.

Many countries have, however, established ambitious national-level emissions reduction commitments. Identifying a pathway to achieve these targets across all relevant sectors is the next important step in each's decarbonization journey. Developing a bespoke national-level emissions roadmap for the health care sector will contribute significantly to this step. Once a roadmap has established the high-impact emissions reduction measures to be prioritized, an action plan is needed to explore how implementation can be designed and delivered.

While many nations have begun to address these questions, significant opportunities to coordinate approaches remain. Developing regional responses and forums for collaboration can help establish communities of practice to share learnings and opportunities. Equally, establishing common metrics and reporting helps with benchmarking and international comparisons.

## 3. Proposed approach

### 3.1 Overview

A proposed strategy to deliver the evidence base and networks for accelerated health care decarbonization across the CAREC region is detailed in Figure 1 and the following sections.

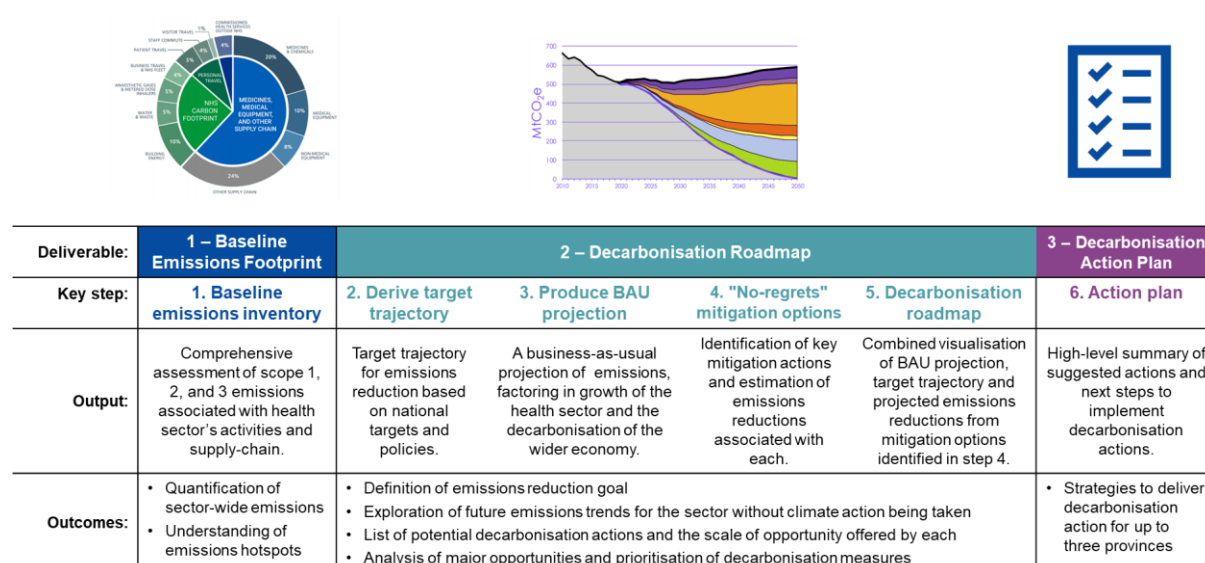


Figure 1: overall approach to preparing detailed action plans for CAREC health systems.

The outputs of this programme shall include:

## **1. Emissions footprint**

An assessment of national-level health sector emissions, and emission from the sector for the wider CAREC region, reflecting the nature and magnitude of key emissions sources. The footprint can be leveraged to help identify “emissions hotspots” to prioritise when planning decarbonization measures.

## **2. Decarbonization roadmap**

An assessment of trends in sector emissions and the potential impacts of identified decarbonization measures. This modelling will be shown against the backdrop of an emissions reduction target, visualizing the progress the modelled interventions will achieve towards sector aspirations. This will be performed individually at the national level as well as at the wider regional level.

## **3. Decarbonization action plan**

High-level suggested actions and next steps to implement interventions and leverage findings from emissions footprint and roadmap to develop a decarbonization strategy. Developed nationally and for the wider region this will be a key output for enabling future change

## **4. Community of practice**

Through the implementation of this strategy, a network of health policy makers and practitioners shall 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.

## **3.2 Key Steps**

### **3.2.1 Baseline Emissions Inventory**

#### **Key step goals**

This key step aims to bring an understanding of current GHG emissions associated with health system operations at the national and regional level. Through defining the existing health system and modelling its current emissions, an understanding of emissions hotspots can be achieved. This baseline will form the basis for subsequent steps exploring decarbonization levers.

This task results in the production of the first formal delivery from this process; the Baseline Emissions Footprint.

#### **Process**

1. Boundary setting and data collection
2. Baseline calculation
3. Quality assurance and reporting

### **3.2.2 Derive Target Trajectory**

#### **Key step goals**

A reference decarbonization target trajectory will be identified based on input from health experts and consideration of national and regional emissions reduction targets and context. There are a number of ways to set a target reduction trajectory.

The target is intended to provide an indicative trajectory to serve as a point of comparison for the business-as-usual scenario and modelled impacts of emissions reductions actions developed

through this project, helping to communicate the reach and limitations of the decarbonization efforts modelled.

*(Note: while these proposed targets could further inform the creation and adoption of formal national or regional health sector-specific targets, there are a range of additional policy-related considerations and stakeholder engagement that would be needed before formalising these or any similar commitments.)*

### **Process**

1. Discussion to identify national target setting considerations and priorities
2. Modelling target trajectory
3. Quality assurance and validation

### **3.2.3 Produce BAU Projection**

#### **Key step goals**

The focus of this key step is the exploration of how emissions levels from the national and region-wide health sectors are anticipated to change over the coming decades in without concerted action on emissions from the sector. Understanding potential future emissions levels will enable the country team to have a better sense of the level of emissions reductions needed to achieve its decarbonization aspirations.

The “business as usual” (BAU) projection will be incorporated into the decarbonization roadmap and provide the basis upon which the impacts of decarbonization actions will be modelled. The baseline emissions footprints identified in the first step will serve as the starting point for these projections.

### **Process**

1. Identification of anticipated growth and/or activity change data, information and/or assumptions
2. Identification of decarbonization trends and/or assumptions of key supply chain sectors
3. Scenario modelling
4. Quality assurance and validation

### **3.2.4 "No-regrets" mitigation options**

#### **Key step goals**

Identification of key decarbonization actions and estimation of emissions reductions associated with each of these actions are key to understanding how the health sector can progress towards its targets identified in step 2.

Each of the mitigation actions identified will be modelled against the BAU scenario developed in step 2 to illustrate how each action will affect the overall footprint and decarbonization trajectory.

### **Process**

1. Identification of decarbonization actions and impact planned or under consideration
2. Selection of decarbonization actions to be modelled
3. Estimation of adoption rates and associated emissions reductions of selected actions
4. Scenario modelling
5. Quality assurance and validation

## **3.2.5 Decarbonization Roadmap**

### **Key step goals**

This step builds on the outputs of previous steps to develop national decarbonization roadmaps for the health sector as well as a region-wide roadmap summarising findings. These roadmaps present public facing summaries of programme findings; summarising current emissions, presenting a target reduction trajectory, and presenting future emissions scenarios for business-as-usual health care delivery and a low-carbon system where mitigation actions have been adopted.

The roadmap deliverables produced through this step can be published and disseminated across key stakeholders. It is therefore important to secure buy-in from key decision makers and stakeholders in-country during the roadmap production and review process.

### **Process**

1. Synthesis of data from preceding key steps
2. Author decarbonization roadmaps
3. Deliverable update and publication

## **3.2.6 Action Plan**

### **Key Step Goals**

This deliverable will build upon the findings of earlier stages to prepare national and region action plans focussed on implementing the interventions highlighted through the development of the decarbonization roadmap.

This will take the form of an action plan aimed at policymakers and decision makers, highlighting the short-, medium-, and long-term priorities for health care decarbonization. Also included will be recommendations for ongoing data collection and KPIs by which to track progress, and a summary of the key stakeholders to be included in the rollout of decarbonization actions. Where possible, cost-benefit analysis and other context key to project preparation shall be included.

This work will supplement the Baseline Emissions Footprint and Decarbonization Roadmap, identifying the short- and medium-term actions that can be taken to address emissions hotspots and pave the way for deep sectoral decarbonization.

## Process

1. Desk based review of actions, barriers, opportunities, relevant policies, and key stakeholders.
2. Develop prioritisation of actions based on desk-based review and roadmap outcomes.
3. Finalise reporting and issue action plan.

## 4. Deliverables

It is envisaged that this strategy will lead to the development of a suite of deliverables for each member nation and the CAREC region as a whole. The form of these deliverables is described below.

In addition to these deliverables, the establishment of a strong community of practice across the wider CAREC region for knowledge sharing and capacity building should be prioritised as a key strategic outcome.

### 4.1 Emissions baseline

- Provides a comprehensive assessment of scope 1, 2, and 3 emissions associated with health sector's activities and supply-chain.
- Highlights emissions hotspots within each health system for targeted intervention.
- Enables comparison between emissions profiles of CAREC countries and other international emissions baselines.

### 4.2 Decarbonization roadmap

- Explores **future trends in health sector emissions** in the national and provincial context.
- Develops a **Business-as-Usual (BAU) projection** for sectoral emissions alongside a **target reduction trajectory**.
- Models a suite of **decarbonization interventions** to assess their potential contributions to a decarbonization pathway

### 4.3 Decarbonization action plans

- Presents recommendations for national or regional health systems in line with the findings of the Decarbonization Roadmap.
- Identifies the **short- and medium-term actions** to address emissions hotspots and pave the way for deep sectoral decarbonization.
- Recommend **KPIs and metrics** to use for tracking progress.
- Explores **barriers and opportunities** linked to action areas.
- Where possible, **explores finance** needed to implement actions.

## 5. Discussion and next steps

This document provides a suggested strategy for producing a foundational set of resources, networks, and engagement that can enable transformational change in the sector. Should members of the CAREC Working Group on Health and Climate Change (WGHCC) agree that this type of approach would be of value, a more detailed approach can be detailed and shared for comment.

The strategy presented in this document focuses on four main outcomes;

1. Develop **emissions baselines** for the health systems of **all CAREC members and the region as a whole**. Providing an overview of current emissions hotspots, and a **key performance indicator** for measuring future progress.
2. Explore **future emissions** trends and **decarbonization opportunities**, leading to the creation of national health **decarbonization roadmaps** for CAREC member nations and the wider region.
3. Prioritise implementation through the creation of **national action plans** and a **coordinated regional response** to achieving decarbonised health systems and supply chains.
4. Coordinate joined up action across CAREC members through establishing a **community of practice** amongst health system policy makers and practitioners in the region. This will **support learning and sharing of best practice** approaches to achieving emissions reductions.

This proposal shall be presented and discussed during the meetings on 7-9 April 2025, where a decision on next steps for this area will be part of the agenda.