



Enhancing sustainability of the transboundary Cambodia - Mekong river delta aquifer

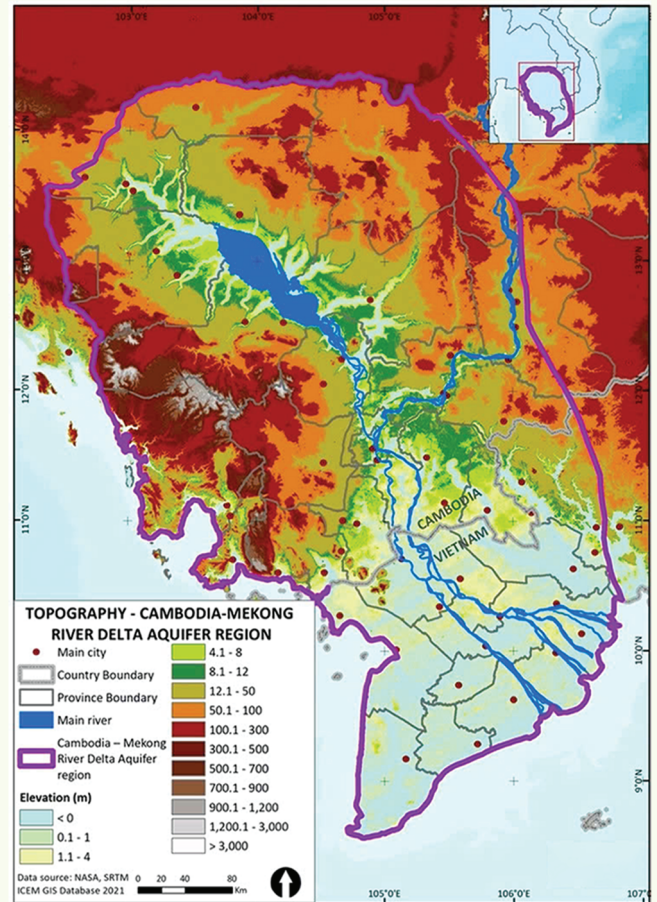
© IUCN Viet Nam / Andrew Wyatt

Natural recharge wetland, Cambodia - Viet Nam border

Background

The 200,000 square kilometer area of the Cambodia Mekong Delta Aquifer (CMDA) spans from the southwestern coastline of Viet Nam to Cambodia's northern border with Lao PDR. This complex aquifer system is a vital source of life for 35 million people who depend on its groundwater for drinking, irrigation, and other essential needs. The region's wetlands include biodiverse areas such as Tonle Sap Lake and the Mekong Delta's rice landscapes and coastal mangroves, where groundwater is crucial in sustaining biodiversity, rice farming, and fishing livelihoods.

The aquifer faces critical challenges, including rapid groundwater level decline, land subsidence, and increasing arsenic, salinity, and other contaminants that degrade its quality and quantity, threatening groundwater-dependent ecosystems and human well-being. Climate change, upstream river management, and increasing human development exacerbate these issues, which disproportionately affect vulnerable populations, including women and marginalized groups. Immediate action is needed for all groups that rely on the aquifer for their daily needs.



Source: ICEM, 2021

Project partnerships

The CMDA project is a five-year collaboration (2024 to 2028) between governance partners FAO and IUCN and Cambodia's Ministry of Environment (MoE) and Vietnam's Ministry of Agriculture and Environment (MAE). Key implementing partners include UNESCO, the Mekong Region Futures Institute (MERFI), the Cambodia and Viet Nam National Mekong Committees (CNMC and VNMC), and other research institutes and universities.



© IUCN Cambodia / Puthkanha Vong

Groundwater monitoring field visit in Prey Veng, Cambodia

Project objectives

The Enhancing Sustainability of the Transboundary Cambodia-Mekong River Delta Aquifer project, a GEF Integrated Waters transboundary initiative, is designed to protect the aquifer's integrity for future generations. In a regional first, the project's primary focus is enhancing transboundary aquifer management between Cambodia and Viet Nam – a crucial step in safeguarding this vital ecoregion. The project will achieve this through five key outcomes.

Outcome 1

Conduct a Transboundary Diagnostic Analysis (TDA) to build consensus among countries on key aquifer concerns

Outcome 2

Develop and implement pilot projects to test options such as groundwater recharge and trade-off mitigation strategies

Outcome 3

Strengthened transboundary aquifer governance through cooperative mechanisms and agreements

Outcome 4

Develop a Strategic Action Plan (SAP) to enhance aquifer governance and foster transboundary cooperation and stakeholder participation.

Outcome 5

Establish mechanisms for monitoring, gender mainstreaming, and transboundary coordination to ensure the project's long-term sustainability

Developing a strategy for sustainable management

The CMDA project will strengthen transboundary governance, improve groundwater recharge and sustainable use, and enhance cooperation between Cambodia and Viet Nam. The project focuses on building consensus on critical transboundary issues, developing and implementing inclusive strategies that balance ecosystem needs with livelihoods, and securing policy and legal reforms to support the sustainable and equitable management of the aquifer.

Through these coordinated efforts, CMDA provides the necessary framework to sustain the aquifer's health, resilience, and ability to meet the needs of the 35 million people who rely on it, ensuring its viability for future generations.

Contact information

Chief Technical Advisor - Robert Bower

Email: Robert.Bower@iucn.org

IUCN Viet Nam Coordination Office

184 Nam Ky Khoi Nghia Street, District 3, HCMC, Viet Nam



© IUCN Viet Nam / Robert Bower

Installing groundwater arsenic monitoring well in An Giang, Viet Nam



© IUCN Cambodia / Puthkanha Vong

Rice farmers who use groundwater pumping in Svay Rieng, Cambodia



© IUCN Viet Nam / Robert Bower

Enhancing natural groundwater recharge - Tram Chim National Park, Viet Nam