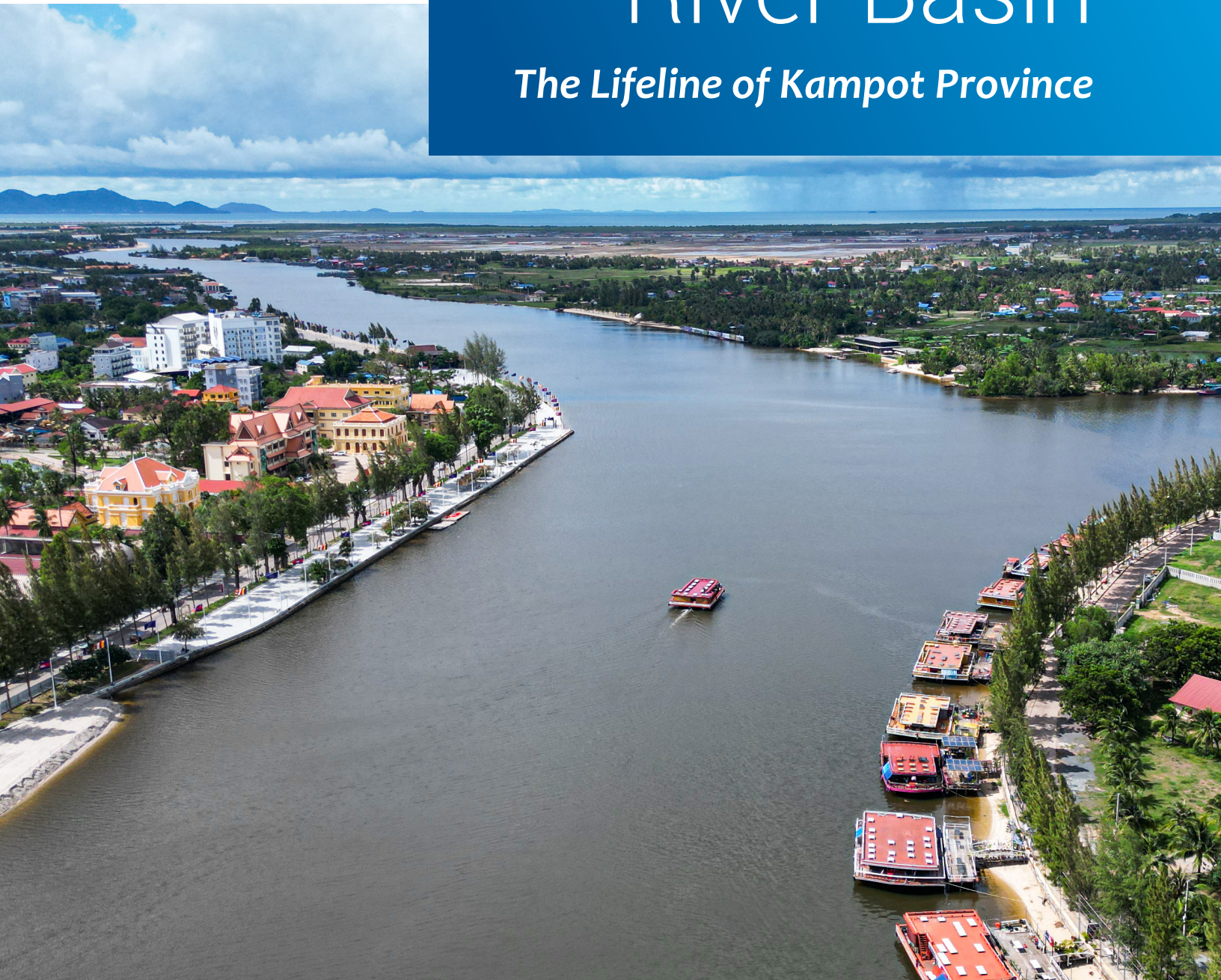




The GEF/UNDP/ASEAN Project on Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management (IRBM) in the ASEAN Countries

Kampong Bay River Basin

The Lifeline of Kampot Province

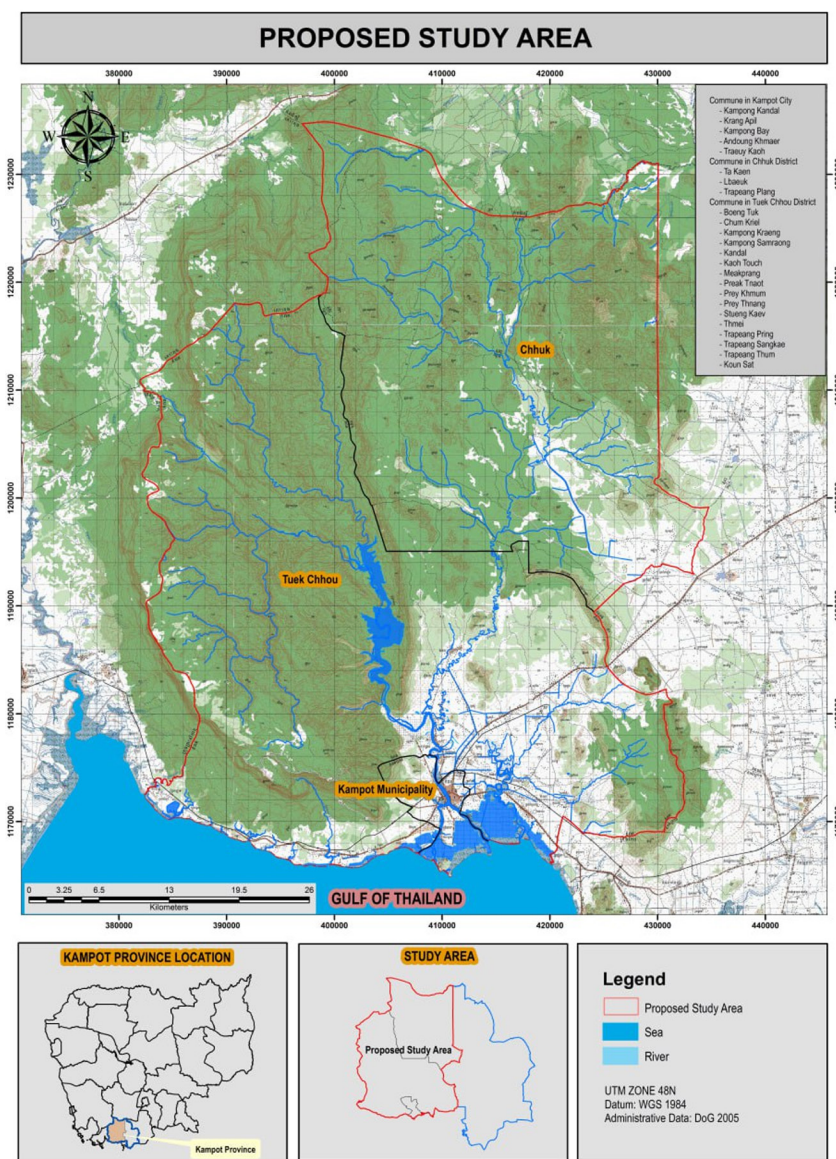


Wading through the communes of Kampot Province, the glossy waters of Kampong Bay River Basin strides on to riverbanks and riprap walls, providing a steady source of food and livelihood, as well as means of transport to over 184,000 people in the southern region of Cambodia.

Kampot Province's coastal area is approximately 66.50 kilometers and covers four districts including Kampot City, Bokor district, Teuk Chhou District, and Kampong Trach District. The Kampong Bay River Basin is one of the main coastal river systems in Cambodia with 12-kilometer long or 3,018 km² total area. From Kamchay Mountain, it flows through the Teuk Chhou district and Kampot City toward the Gulf of Thailand, a large marine ecosystem shared with Thailand and Viet Nam.

Although Cambodia has a relatively shorter coastline compared to its neighboring Asian countries, the 443-kilometer coastal area is host to 1,960 hectares of mangrove forests, 25,250 hectares of seagrass beds, and 953 hectares of coral reefs. It is also home to endangered species including Dugong, marine dolphin, and marine turtles. These marine ecosystems are critical to sustain the biodiversity and fisheries resources in the surrounding areas.

In 2007, the United Nations Environment Programme estimated that the annual net economic value of Cambodia's seagrass beds and mangrove forests were USD 1,186 per hectare per year and USD 882.35 per hectare per year, respectively.



Location map of Kampong Bay relative to Kampot Province and Cambodia



Mangrove forest cover along the estuarine adjoining the Kampong Bay River Basin to the Gulf of Thailand. According to the Ministry of Agriculture, Forest and Fishery of Cambodia, there are, at least, 35 mangrove species identified and recorded in the country.

The continuous decline of water quality from the upstream sources and the degradation of freshwater habitats of the river basin could adversely impact the biodiversity and marine resources of Cambodia.

The Kampong Bay River Basin is the largest river draining from Kamchay Mountain into the sea. This river system plays an important role in ensuring the water supply of Kampot communities and the local tourism economy in the province.

From marine life to human lives

With a total area of 3,018 square kilometers, Kampong Bay River Basin is not only ecologically important to maintain a diverse and healthy freshwater and marine ecosystems in Cambodia. More importantly, it is the life support of the entire Kampot Province and its neighboring districts.

From Phnom Penh, Kampot Province is 148 kilometers away and a three-hour land travel from the nation's capital. It has witnessed a lot of historical transformation that brought together its rich and diverse culture of communes living along the river basin. It is famous for its durian and gourmet pepper that is known as one of the best in the world.



The upstream area of the Kampong Bay River Basin is lined with a narrow stretch of white sand beach, paved baywalks, and greenery leading upright to the more rural districts of Kampot Province.

The Kampong Bay River Basin passes through the seven coastline communes and 17 non-coastline communes from the districts of Tuek Chhou and Chhuk, and Kampot City, the capital of Kampot Province. Communes are groups of villages within a district or a municipality. This region of Cambodia is considered as one of the fast-developing coastal areas in the country.



Being the capital of the Province, the scenery along the riverbanks of Kampot City is a mixture of residential and commercial buildings.

The riverbanks of Kampot City provides a picturesque view of a growing river city with mixed residential, commercial buildings, and public infrastructure in the background. There are commercial establishments such as food stalls, retail shops, resorts, and docking areas to cater the locals and tourists who come for the river cruise, one of the main attractions in Kampot.



One of the major attractions of Kampong Bay River Basin is the river cruise. Several river cruise operators have docking areas along the riverbanks of Kampot City. The tourism industry has also provided livelihood opportunities to locals who are into food and retail services.

Aside from tourism, agriculture is the most predominant sector that employs over 70% of the province's population. This includes rice farming, sugarcane and other crop plantations, salt farming, aquaculture and small-scale fisheries. Fishing communities thrive in the downstream area of the river.

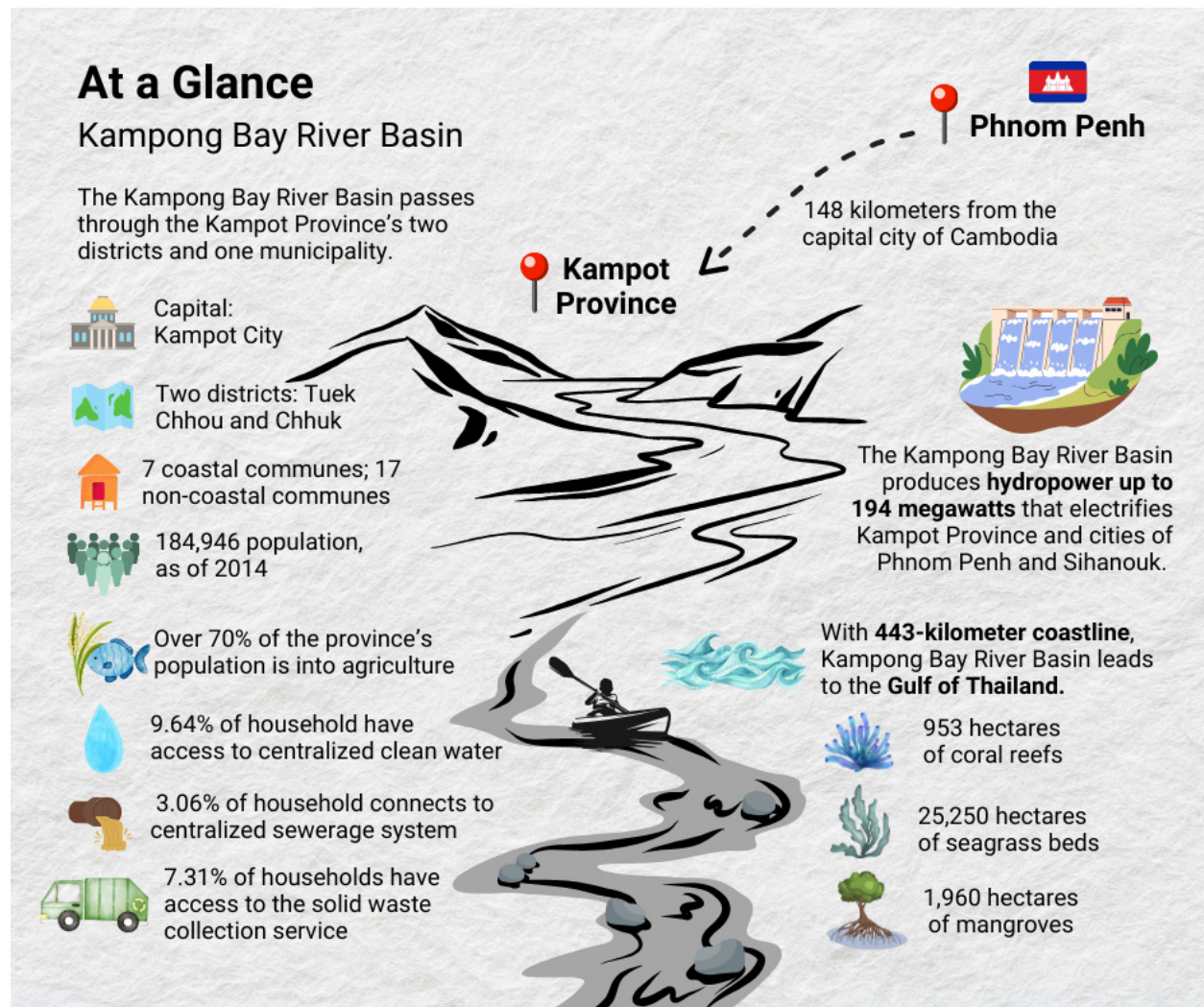
The industrial developments in Kampot also bring in other economic opportunities such as construction services, local handicrafts, and manufacturing industries including ice production, garments and footwear, cement factories, and even sand dredging.

Unfortunately, these developments hardly come with sufficient measures to mitigate potential environmental impacts.



The thriving fishing community in Kampot City is found in the downstream area of the river basin, near the opening of the gulf.

The river basin in peril



The coastal and riverbank developments, alongside the increase of pressure of utilization of water resources in Kampot, has contributed to the continuous decline of water quality in Kampong Bay River Basin. It endangers the critical water source of the Province as it provides essential water services to different sectors including agriculture, transportation, and tourism. It produces hydropower up to 194 megawatts that generates electricity not only for Kampot Province but also for other cities including Phnom Penh and Sihanouk. It is also considered as the only source to extract clean water for people living in Kampot City.

However, the level of pollution has continuously increased over time, in part due to the growing population in the province as well as the lack of proper management of wastes.

In the 2013 data of the Kampot Provincial Administration, only 7.31% of the province's population have access to solid waste collection services. The solid wastes are commonly burned, buried, or dumped into the waterways. Moreso, the wastewater is highly problematic as only 3.06% have been connected to the sewage system as of 2014.

The improper waste management has put the river basin and the communities living alongside the river at a high risk of pollution and degradation despite its socio-economic importance in the region.

Today, the Kampong Bay River Basin is one of the national priority rivers in Cambodia. It is also included as one of the priority river basins of the Integrated River Basin Management (IRBM) Project being implemented on the ground by Partnerships in Environment Management for the Seas of East Asia (PEMSEA) with financial support from the Global Environment Facility (GEF).



Left: Mr. Roath Sith, Deputy Director General of the Directorate General of Environment Protection under the Ministry of Environment of Cambodia during the National Inception Workshop of the IRBM Project last July 2023; Right: His Excellency Siv Peng, Deputy Governor of Kampot Province affirmed the provincial government's support to the Project during the workshop.

“Kampot Province faces challenges related to climate change, natural disasters, and environmental pollution. We appreciate the selection of Kampot Province as a priority site for the project and the facilitation of the inception workshop. It will provide an opportunity for national and sub-national stakeholders to provide inputs to achieve the expected results of the project for the sustainable development of Kampot Province.”

Kampot Province Deputy Governor Siv Peng
during the national inception workshop of the Project in Cambodia

In the Southeast Asian region, the IRBM Project covers priority river basins in six countries including Cambodia to set-up a functional mechanism to reduce pollution, sustain freshwater water quality, and adapt to impacts of climate change. It is designed to improve governance and management arrangements through the source-to-sea approach within a five-year period.



National and local partners of the IRBM Project participated in a two-day national inception workshop in Kampt City last July 2023 to discuss the action plans of the Project in the next five years.

Integrated River Basin Management Project

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) implements the IRBM Project, with support from the United Nations Development Programme and the Global Environment Facility, and in collaboration with the ASEAN.

Project Components

- Baseline Assessment of Source to Sea Management Continuum** (Icon: magnifying glass over a document)
- Improved Governance and Management in Kampong Bay River Basin and coastal area of Kampt City** (Icon: hands holding a building)
- Knowledge Management and Capacity Development** (Icon: gear and bar chart)
- Monitoring and Evaluation** (Icon: bar chart and target)

Priority Issues to address in Kampong Bay River Basin

- Quantity and quality of water resources**
Increasing demand for water by increasing population and tourists as well as industrial and agricultural activities; 3.06% of population is connected to the sewage system; very few houses with septic tanks (Icon: water drop and waves)
- Waste management**
Waste collection rate very limited, much of the waste still burned, buried or dumped in public areas and water bodies; open dump operation (Icon: trash bin)
- Water services**
Kampong Bay is the only source to extract clean water for the people in Kampt city; amount of water collected from the basin is 5,875 m³/day; generates electricity of 194 MW through hydropower dam (Icon: hand holding a water drop)
- IRBM Governance**
Lack of capacity and resources to implement integrated river basin management plans and programs (Icon: scales of justice)

Coordination Mechanism

- Regional Steering Committee
- National Level:
Ministry of Environment; General Directorate of Environmental Protection; Department of Water Quality and Management (National Project Coordinating Unit)
- River Basin Level:
Kampong Bay River Basin Coordinating Committee and RB Coordinating Unit
- Pilot Project Level:
Kampt City Technical Working Group/Project Team

In Cambodia, the State of the River Basin (SORB) in Kampong Bay will be developed to provide evidence-based data and information to better understand the current challenges being faced by the river basin and the communities surrounding the areas. In the five-year implementation of the Project, it will also strengthen the governance and management strategies of the Kampong Bay through investments in pilot initiatives to improve infrastructure in the area, strengthening public-private partnership, building the capacity of local and provincial leaders, and increasing awareness among communities.

A clean and healthy river basin can help Khmer communities reach their social, economic and environmental goals. This can be achieved by establishing stronger policies, a well-defined management regime and robust infrastructures, all supported by an up-to-date and reliable data on the state of the river basin.

Sources:

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Commune Database 2014, National Committee for Sub-National Democratic Development.

Words: Rizza Sacra-Dejucos

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For more information on the project, please visit
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