

Cambodia

Actions toward a Green, Livable Phnom Penh

Phnom Penh has been all but overwhelmed by its rapid growth in the past twenty years. The Cambodian capital's population has almost doubled during this time. Estimated at 1.9 million today, the city is expected to have 3 million residents by 2030.

In response to this growth, city and government officials have drawn up an ambitious plan to remake the capital a cleaner, greener, more competitive city, offering a safe and quality lifestyle to its residents by 2030.

"The development of Phnom Penh must acknowledge its environmental impacts and pay full attention to climate change. This means development must go hand in hand with environmental protection, ensuring a clean and green environment for the city," stated H.E. Khuong Sreng, governor of Phnom Penh.

Indeed, to achieve this goal, a number of barriers will need to be overcome. Phnom Penh has no waste water treatment

system. Waste from homes and commercial properties flows into drains and then, untreated, into local rivers and marshes. Water quality monitoring by the Ministry of Environment finds problems, including disease-causing coliform bacteria levels up to 100 times the allowable limits at some sites. Not surprisingly, low-lying areas of the city have high incidences of diarrheal diseases, hepatitis A, and intestinal parasites—consistent with contaminated water.

Garbage collection is also inadequate: *"During the rainy season, there are frequent floods in Phnom Penh,"* said GGGI Cambodia Country Representative, Karolien Casaer-Diez. *"Garbage in the drainage system chokes the pumps at the water pumping stations. The pumps stop working, and the drainage water floods the city."*

Although the Ministry of Environment has made considerable efforts to conduct real-time air quality monitoring for Phnom Penh, the city's air quality is not as systematically monitored as water, but two studies found worryingly high levels of particulate matter, dust, and smoke linked to heavy, polluting traffic and the widespread use of charcoal stoves for cooking.



GGGI in Cambodia: 2030 plan for developing a green and sustainable Phnom Penh

To counter these issues, the Phnom Penh Sustainable City Plan lays out a sustainable urban development model for the capital and proposes projects that will address infrastructure challenges, reduce emissions, and improve the quality of life and livelihoods for all its residents. The plan is developed as a green growth investment prioritization exercise to implement current Phnom Penh master plans in different sectors, such as land use, transport, drainage, and waste management.

Nearly 50 pilot projects are proposed under the plan, covering everything from more detailed forecasts of climate threats to installing solar street lighting and the creation of a water pollution control fund to finance environmental protection around industrial sites.

A number of these projects have already started moving forward. This includes the piloting of pedestrianized areas, a solid waste management strategy for Phnom Penh, and green building guidelines in the making.

The priority projects are intended to complement larger-scale plans for the city. For instance, there is a USD 1.7 billion scheme to build a central drainage and sewage treatment system by 2040. This scheme, the Phnom Penh Sustainable City Plan, includes a demonstration project for decentralized wastewater treatment in peri-urban areas that will not be served by the new sewage works.

The Global Green Growth Institute (GGGI) advised Cambodia's National Council for Sustainable Development and Phnom Penh Capital Administration on its Sustainable City Plan and continues to work closely with these institutions as well as with the Ministry of Environment, Ministry of Public Works and Transport, Ministry of

Industries and Handicraft, and private sector to find sustainable solutions to Phnom Penh's challenges.

Karolien Casaer-Diez explained how green urban development enjoys public support. *"It is often assumed that a lot of time and convincing is needed for people to believe that growth can be green. But, in Cambodia, it's quite obvious for the citizens. For example, people can actually see that a lack of waste and waste water management is a direct threat to tourism potential. Sewage all over the road is not very attractive to tourists or residents. People can also see that flooding is affecting their assets and causing delays for commuters, which ultimately affects productivity."*

GGGI is also working with the Ministry of Interior and seven other municipal governments to design a Sustainable City Strategic Plan. *"Initially, our green growth work focused on Phnom Penh. However, at GGGI, we are saying that the government needs not just one but multiple urban growth poles to release the pressure of urbanization that is most acutely felt in Phnom Penh and its surrounding region, which is already home to more than half of Cambodia's urban residents. This is why we are working on sustainable urban development in seven other secondary cities,"* Casaer said.

Cambodian officials' actions and the government's consistent commitment and ability to uncouple the strong economic growth—that continues to attract people and resources to Phnom Penh—from growing environmental impacts will ultimately determine if the goals of the Phnom Penh Sustainable City Plan are achieved.



GGGI in Cambodia: Responding to rapid urbanization through the Sustainable City Strategic Plan