



# HKZMB raises many environmental questions, authorities answer none

Renato Marques\*

**T**HE Hong Kong-Zhuhai-Macau Bridge (HKZMB), almost ready to open, has been widely regarded as a “strong development factor” for the entire Pearl River Delta area and especially for the three cities connected by its branches.

The 34 years between the birth of the idea of building the HKZMB and its final completion have seen many high-profile figures praise the mega-structure and highlight its numerous economic advantages.

Since its construction began in late 2009, questions have been asked more and more frequently about the extent of the infrastructure’s purported advantages and also regarding the possible environmental consequences of such a large-scale project in nearby waters.

Recently, a conservation group in the neighboring region of Hong Kong called for the creation of a supersized marine park to connect all the existing facilities around Lantau Island in order to stop what they described as a “rapid decline in the population of Chinese white dolphins.”

The group, the Dolphin Conservation Society, is also calling for the diversion of high-speed ferries in the estuary area because of the same ecological concerns, according to the South China Morning Post.

The conservation bells first started ringing after the latest white dolphin headcount, conducted by the Hong Kong Agriculture, Fisheries and Conservation Department. A recent report released by the department showed that the number of these marine

mammals in Hong Kong waters has almost halved since 2010, reaching a historical low of 47.

The group attributes this decline to the large-scale infrastructure works around Lantau. These include the HKZMB, the building of the city’s third airport runway and the growing frequency of high-speed ferries and other maritime traffic.

This issue is accompanied by several other environmental and ecological challenges posed by the bridge, but the governments of the three impacted regions appear to have little to say on the matter.

An Environmental Impact Assessment study conducted in 2003 by Hong Kong’s Highway Department highlighted the infrastructure’s impact in several key areas: ecology, water quality, air quality and cultural heritage.

“It is anticipated that surrounding [areas] could be affected by noise, air quality, ecological, water quality, visual, waste and cultural heritage impacts during the construction and operational stages,” the department noted in the report.

Regarding ecological concerns, the report warned that “construction at the bridge-land interface and the construction of piers in west Lantau and the Airport Channel may result in increased release of sediments that could potentially affect the mangroves and seagrass communities at/near the San Tau SSSI, [and also affect the] intertidal mudflats and horseshoe crab nursery area in Tung Chung Bay and the habitat of the Chinese White Dolphins.”

Meanwhile, Macau authorities have not publicized the findings from any preliminary studies or made clear their considerations

of the possible negative outcomes of the HKZMB.

In October 2003, the Preparatory Group for the Construction of the HKZMB decided to establish a new committee to “be responsible for the concretization of the [preparatory] works,” with its members contributing “great experience, technical capacity and profound knowledge of the situation of the Pearl-Delta.”

Local authorities are yet to publically disclose the results of studies from the Guangzhou-based committee.

## ■ The bridge has been criticized on both sides of the Pearl River Delta for safety scandals, overrun budgets and ulterior motives

In an email to the Times, the Macau Environmental Protection Bureau (DSPA) noted that the HKZMB is “an interregional construction project involving the use of the maritime areas of the Mainland. Since the application for the use of the areas is required, their [the Mainland’s] national environmental impact assessment rules must be complied with.”

“The promoter of this project is already carrying out the work in this field, in accordance with the national requirements,” the DSPA assured, noting that it could

not provide information on its behalf.

Speaking to the Times, António Trindade, founding president of the Macau Association of Environmental Protection Industry, said that all construction projects – particularly large-scale ones – have an impact on the environment. He also said that while “every construction projects has an impact; assessments are needed to find the mitigating factors.”

Some analysts have speculated that the introduction of the HKZMB might reduce the demand for high-speed ferries between the three cities. On this suggestion, the DSPA said it “does not currently have the information to [advise].”

Asked whether vehicle emissions on the new bridge might compare favorably to those of the jetfoils, Trindade said that it depends. “Both boats and vehicles have harmful emissions,” he said, and it remains to be seen how the two means of transport will contribute to air and sea pollutants in the estuary.

The bridge has also been criticized, on both sides of the Pearl River Delta, for safety scandals, overrun budgets and ulterior, political motives.

Civil engineer Albert Lai, convener of think tank Professional Commons, said that the problems reflect “political considerations overriding professional judgments with regard to the design and construction of the bridge.”

“The sole purpose of this bridge was to cater to the development needs of the mainland. As a result, all professional considerations such as its design have not been fully taken into account,” he told the SCMP.

Opinions on the controversial project are also divided on the Macau side.

While the government and its various departments continue to promise economic advantages from the project, others, such as Rose Lai, a lecturer at the University of Macau (UM), seem to be less optimistic.

“It is difficult to predict the impacts on the real estate market of the region,” Lai said to newspaper Plataforma. Lai noted that “housing prices in the areas near to the bridge connection in Macau have already risen as soon as people started talking about this [infrastructure].”

Lai also raised doubts over whether the bridge would constitute a faster form of transportation to nearby Hong Kong and Zhuhai than the high-speed ferry system.

“To transport [via] bridge does not necessarily mean that it [will be faster]. And the idea of a bridge is more for the transport of cargo and goods [than people],” she said.

Another UM scholar interviewed by Plataforma, Glenn McCartney, assistant professor of hospitality and gaming management, said that above all, authorities required a strategic plan for how to use the bridge.

McCartney feels “an infrastructure such as this one is always a positive thing as it assures an improvement on accessibility to Macau.” However, “infrastructure [by itself] has no meaning if we don’t know how to ‘sell it,’” he said, adding that there is an important role to be played by government departments such as the Macau Government Tourism Office.

\*With additional reporting by Daniel Beitler