

Artisanopolis is one of the winning architectural designs for the Seasteading Institute's floating city project. The aspiration of the seasteaders is to build a start-up floating city through private investments. In January last year, seasteaders and the government of French Polynesia signed a memorandum of understanding, but negotiations have since stalled.
PHOTO: GABRIEL SCHEARE, LUKE & LOURDES CROWLEY, AND PATRICK WHITE (ROARK 3D)



the 20th century, capture fisheries have been increasingly substituted with fish and seaweed farming.

At the same time, offshore oil and gas drilling expanded into a huge business. Today, ocean economies are further diversified due to experiments with renewable energy production through wind turbines and other technologies.

Architect Kikutake even managed to build a life-size floating city prototype for the 1975 International Ocean Exposition in Okinawa. Afterwards, for a variety of reasons, no public institutions provided further funding.

In combination with a lack of commercial appeal, the idea of a floating city prototype for ocean farming and renewable energy production was postponed for several decades, until climate change gained global attention. Ironically, offshore drilling platforms contributing to climate change continued to be built.

For Pacific island countries, the issue is even more complicated. Governments lack the investment funds needed. To address this issue, a public-private partnership was considered in negotiations between the government of Kiribati – a republic of atolls and islands in the central Pacific – and Japanese architectural firm Shimizu Corporation. But a change of government in 2016 ended these discussions.

Located slightly to the north of French Polynesia, Kiribati's territory will most likely drown before the end of the century.

Rising sea levels are a long-term threat. Plans for floating cities or intensive land reclamation might circulate and be debated for decades before something happens. The prospect raises a host of thorny issues and questions.

For less wealthy countries, it would require international financing. Related is the uncomfortable question of whether Pacific islands are worth saving, and which ones.

Legal questions will also inevitably arise (like during the 1970s), considering that floating habitats would not constitute territory in the way that inhabitable islands do.

The question of whether a floating city can culturally substitute for the idea of an ancestral homeland is also relevant, particularly for Pacific islanders, but has to be contemplated before the backdrop of the alternatives, such as climate change migration.

Finally, the international community also needs to discuss the approach of special economic zones as a development model in the Pacific, including the (un)desirability of different types of zones – such as publicly versus privately administered – compared with development assistance.

stopinion@sph.com.sg

• Stefan Huebner is a research fellow at the Asia Research Institute, National University of Singapore.

• This is the last of four articles in the Expert View series by Asia Research Institute academics.

ExpertView

Floating the idea of cities and economic zones at sea

What are the pros and cons of this alternative to traditional settlement?

Stefan Huebner

For *The Straits Times*

Urbanisation is often thought of as a land-based process. Increasingly, however, humans are venturing to the oceans, not just for travel and transport – but for settlement.

This is not as new as one might imagine. Maritime peoples through the ages have made a living from the sea, and settled not just in coastal areas but also on water. South-east Asia's floating villages, from Indochina to the Malay peninsula, are examples.

What is new is perhaps the scale of such waterborne settlements. Today, the idea of floating cities or habitats is being mooted as a solution to the challenges of urbanisation.

During the last decade, floating houses have become a reality in the Netherlands, mostly in the inland seas.

The fact that large parts of the Netherlands are located below, or only marginally above, sea level no

doubt concentrates the minds of planners. The situation is made more urgent by climate change-related sea level rise and floods. In this regard, Pacific island countries can provide an even more drastic example, since some of them are projected to be totally under water before the end of this century.

Under certain circumstances, floating houses or small, floating cities, rising with the sea level, could be developed. Such floating cities would use the same technology as thousands of floating offshore oil drilling platforms – themselves small, floating cities.

SPECIAL ECONOMIC ZONE – AT SEA?

Transnational interest groups are currently promoting privately administered special economic zones (SEZs) in the Pacific. Such zones differ from more traditional SEZs, which are under governmental control, in that they are envisaged to be autonomous.

In French Polynesia – an overseas territory belonging to France that enjoys a great deal of autonomy – the threat of rising sea levels and the imperative to

develop the ocean economy connected the government, Dutch engineers and American libertarians.

The main promoter of United States-style, market libertarian attempts at minimising governmental control is the San Francisco-based Seasteading Institute. Founded in 2008, it was initially funded by conservative libertarian investor and PayPal co-founder Peter Thiel. The name derives from the term “seasteading”, a combination of the words “sea” and “homesteading”, and refers to the concept of creating permanent dwellings at sea.

The aspiration of the seasteaders is to build a start-up floating city through private investments. In exchange, they asked for judicial control over a special economic zone harbouring the floating city, placing it outside the host country's tax and penal systems.

In January last year, seasteaders and the government of French Polynesia signed a memorandum of understanding. Since then, negotiations have stalled,

opposition has intensified, and the seasteaders are now approaching other governments as hosts.

FROM THE 1970S TO NOW

The concept of floating cities actually emerged decades earlier. During the early 1970s, the Hawaiian state government supported Dr John P. Craven, a US engineer and lawyer with close links to the US Navy, and Japanese star architect Kiyonori Kikutake in their project of testing floating city prototypes.

A major concern, even then, was how to accommodate the growth of mega-urban coastal centres. Floating habitats were supposed to provide additional inhabitable space and to use the ocean to feed and power a rapidly rising global population.

While ocean economies during the early 1970s were still limited in scale, their later expansion and diversification mean that a floating city now could use oceanic industrial energy production and agriculture as economic foundations.

After all, since the second half of