

# Floating a new idea for cities, "We are trying to think ahead"

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A rendering of an Oceanix floating city as seen from above. Photo by: Oceanix/Bjarke Ingels Group

Climate change, or global warming, is the steady warming of the temperatures on Earth.

Different parts of the world will experience the effects of climate change in different ways.

As ice melts, waters rise, meaning cities along coastlines are in increasing danger.

So, a nonprofit group called Oceanix is trying an experiment: floating, human-made islands.

## A Safe Place To Live

The company told the United Nations (U.N.) habitat program about the project April 3. The United Nations is a group that fosters cooperation between countries. The U.N. habitat program works to make sure that people in cities have a safe place to live.

The islands would be linked together into floating, self-sustaining cities. They would rise with sea levels and are built to withstand hurricanes. That's what a group of architects, engineers and developers said when they met at the U.N. headquarters. A small initial version could be ready within months, said Marc Collins Chen.

He's a former government official in the French Polynesian islands who founded Oceanix. French Polynesia is a group of islands in the South Pacific. The largest island in the group is Tahiti.

Officials at the United Nations welcomed the proposal. Still, they have not joined the plan to create floating cities.

Nearly all scientists agree that global warming is caused by the release of greenhouse gases into the atmosphere. People burn fossil fuels such as coal and oil. When we burn these fuels, carbon dioxide is released into the air. Carbon dioxide is a greenhouse gas. These gases remain in the atmosphere and trap heat. Over time, that has made average temperatures go up worldwide.

### **Sea Levels Estimated To Rise As Much As 7 Inches**

Coastal cities are running out of land. They're becoming increasingly endangered as sea levels are estimated to rise as much as 7 inches in some places by 2030. Ninety percent of the largest global cities are at risk because of climate change, said U.N. official Victor Kisob.

Amina Mohammed is one of the U.N.'s leaders. She said the proposal is more unusual than approaches the United Nations would have taken even four years ago. "We are trying to think ahead," she said.

The floating platforms will be made of wood and bamboo. Each platform is about the size of three White Houses. This would be a small piece of a potentially bigger puzzle, said Bjarke Ingels of the Bjarke Ingels Group. It's the architectural business partnering with Oceanix.

Each platform would house 300 people. Markets, farms, apartments, and solar panels would stack atop the platforms. The city would grow in a pattern: Six linked platforms, like a hexagon of a honeycomb, would become a village. Six of those villages would be a 10,000-strong town covering 185 acres. That's about the size of Disneyland.

The platforms could continue to be linked together to house as many people as needed.

"We would continue to grow this as the demands grow," Collins Chen said.

Oceanix communities would follow local laws. They would not be for rich people only, Collins Chen said. He told The Washington Post he was "not ready to share" estimated costs. However, he said construction costs would stay low. That's because the floating hexagons can be mass-produced in factories and towed to destination bays.

Governments, including the United States, often charge for people to rent space on water. This costs a few dollars per acre per year, Collins Chen said. Meanwhile, the price of land in a large coastal city is extremely high. "One square meter of land in Hong Kong costs \$150,000," he said. Hong Kong is a large city in East Asia. More than 7 million people live there.

The United Nations will not be paying any of the cost to build an initial model.

Oceanix's plans resemble communities that already exist: the houseboats that gather in Sausalito, California, are an example. The human-made reed islands in Lake Titicaca, in the South American country Peru, are another example. These islands are home to the Uros tribe. Some of these coastal communities are wearing away, though. People are heading to land to find work.

### **Islands Could Power And Feed Themselves**

What makes an Oceanix city different, Collins Chen said, is the islands could power and feed themselves. Turbines in the air above the platforms and water below would provide energy, as would solar panels. Rain and salt-removal systems would provide fresh water. Greenhouses, airborne farms and gardens on the water would provide food.

Weaving together energy use, food production, housing and the water environment is also a huge challenge. Human systems and nature systems are complex, cautioned Joseph Stiglitz. He's a Nobel Prize-winning economist. He studies how countries make decisions about using resources. These resources can include everything from money to space for people to live. These resources are scarce, meaning there is not enough for what people would like.

Though Stiglitz wasn't sure the islands would work, the only way to know if it works is by trying, he said.

## Quiz

- 1 Read the paragraph from the section "Sea Levels Estimated To Rise As Much As 7 Inches."

*Coastal cities are running out of land. They're becoming increasingly endangered as sea levels are estimated to rise as much as 7 inches in some places by 2030. Ninety percent of the largest are at risk because of climate change, said U.N. official Victor Kisob.*

Which phrase from the paragraph helps the reader understand the meaning of "endangered"?

- (A) sea levels
- (B) estimated to rise
- (C) global cities
- (D) are at risk

- 2 Read the sentence from the section "Islands Could Power And Feed Themselves."

*Weaving together energy use, food production, housing and the water environment is also a huge challenge.*

Which answer uses "weaving" in the same way as the sentence above?

- (A) She started weaving all of their ideas together into one successful plan.
- (B) He was weaving in and out of the large crowd of people.
- (C) This group had mastered the art of weaving blankets centuries ago.
- (D) The boxer used a bobbing and weaving technique to tire his opponent.

- 3 This article is MOSTLY organized using problem and solution.

Why do you think the author chose to organize the information this way?

- (A) to explain how the United Nations is trying to stop and reverse climate change
- (B) to highlight one group's approach to the risk coastal cities face due to climate change
- (C) to compare the island platforms created by Oceanix with communities that already exist
- (D) to demonstrate some of the challenges people will face if they move onto island platforms

- 4 How is the structure of the introduction [paragraphs 1-4] similar to the structure of the section "A Safe Place To Live"?

- (A) They both use events in order.
- (B) They both use cause and effect.
- (C) They both mostly use compare and contrast.
- (D) They both mostly use steps in a process.