

# Giant Solar Floating Farm Could Produce 8,000 Tons of Vegetables Annually

Source: [ecowatch.com](http://ecowatch.com)

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The world is less than 40 years away from [a serious problem](#): producing enough [food](#) for 9 billion mouths. But with [climate change](#) cutting more than a quarter of crop yields by 2050, innovators must devise strategies to confront dwindling global food supplies.

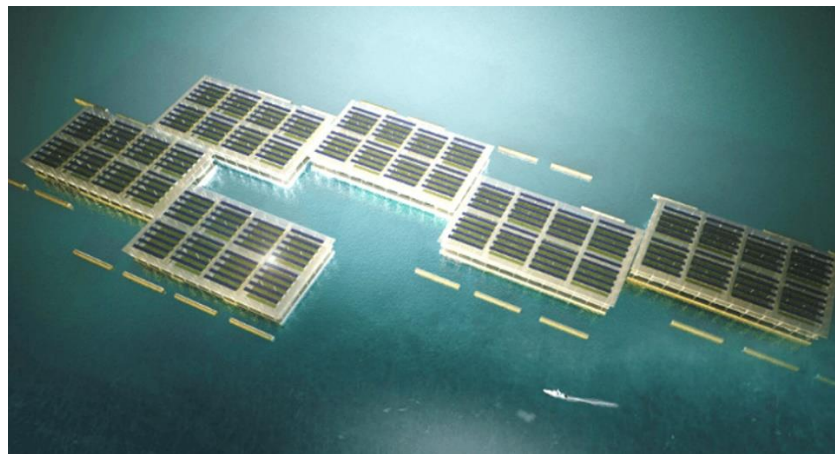
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The multistory design incorporates vertical farming, hydroponics, aquaculture and renewable energy to produce year-round food. Photo Credit: Forward Thinking Architecture

The Barcelona-based design company's Smart Floating Farms (SFF) concept is a sustainable, solar-powered [vertical farm](#) that floats on pontoons, making it possible to grow food off a coast, in the open sea or just about any large body of water. The designers estimate that SFF can produce an estimated 8,152 tonnes of vegetables and 1,703 tonnes of fish annually.

The farm is comprised of three levels and features innovative agricultural technologies that are already in use around the globe. It can be modified or stacked in different ways to suit the needs of respective locations.

The top level incorporates rainwater collectors for irrigation needs, photovoltaic panels for electricity and skylight openings to provide natural light for plants. It's also possible to integrate other renewable power technologies such as micro wind turbines or wave energy converter systems.



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The second level features a greenhouse and [hydroponic](#) systems (which allows crops to grow year round in any weather and without soil).

"Because it does not require natural precipitation or fertile land in order to be effective, it presents people who are living in arid regions and others with a means to grow food for themselves and for profit," the designers said.



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Lastly, the ground level is designated for offshore aquaculture. According to the designers, this cage fishing method takes place in the open sea and eliminates the exposure to wind and waves.

This level also includes a hatchery where fish eggs are incubated and hatched, a nursery for growing fish, a slaughterhouse and a storage room to hold the fish before they are ready for the market.

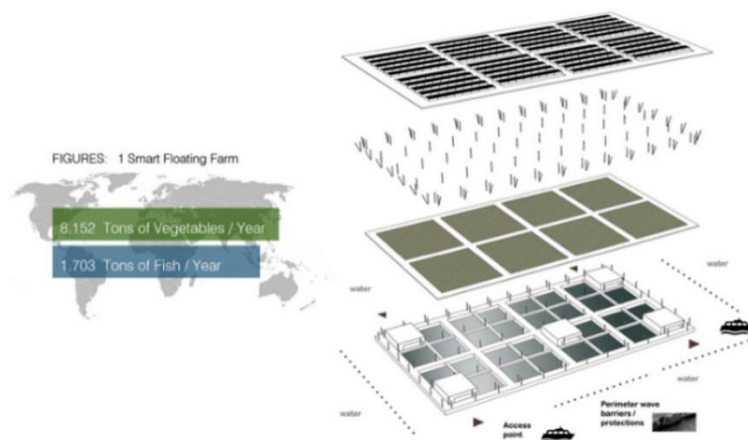


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“Facing the current challenges of cities growing, land consumption and climate change, I believe projects like the Smart Floating Farms can help change some of the existing paradigms which have led us to the present situation and open new possibilities which can improve the quality of human life and the environment,” said SFF project director Javier F. Ponce on the company's website.

The designers said the farm is ideal for many large cities or densely populated areas with access to water, such as Los Angeles, New York, Chicago, Seattle, Tokyo, Singapore, Mumbai, Jakarta, Cairo, Hong Kong, Shanghai, Sao Paulo, Osaka, Bangkok, Shenzhen, Istanbul, Montreal, Seoul, Karachi, Sydney and more.

With more people moving away from farms and into cities, advancements in urban agriculture is more important than ever.



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