

## CASA ANFIBIA

### REMAIN INSTEAD OF RELOCATE IN RURAL NICARAGUA

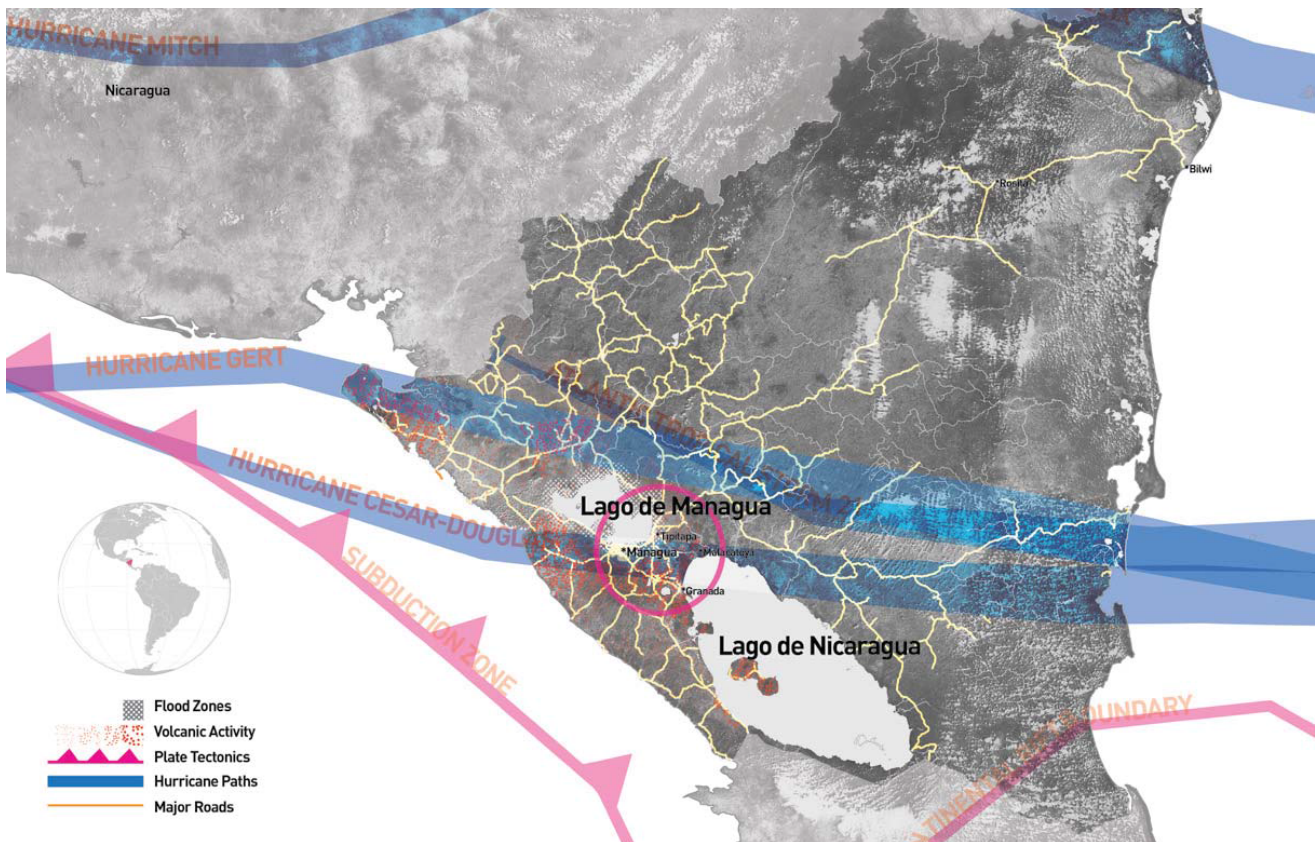
*Holcim Awards for Sustainable Construction*  
Elizabeth English, Steven Chodoriwsky, Karan Manchanda, Jaliya Fonseka, Mark Tam, Amal Dirie

Nicaragua is undergoing multiple crises, both social and environmental. Low-income communities in flood-hazard areas of Tipitapa, Nicaragua are threatened by repetitive flood cycles. Attempts have been made by the government to relocate eco-refugees from vulnerable areas, but they persist in returning to their place of origin despite the risk.

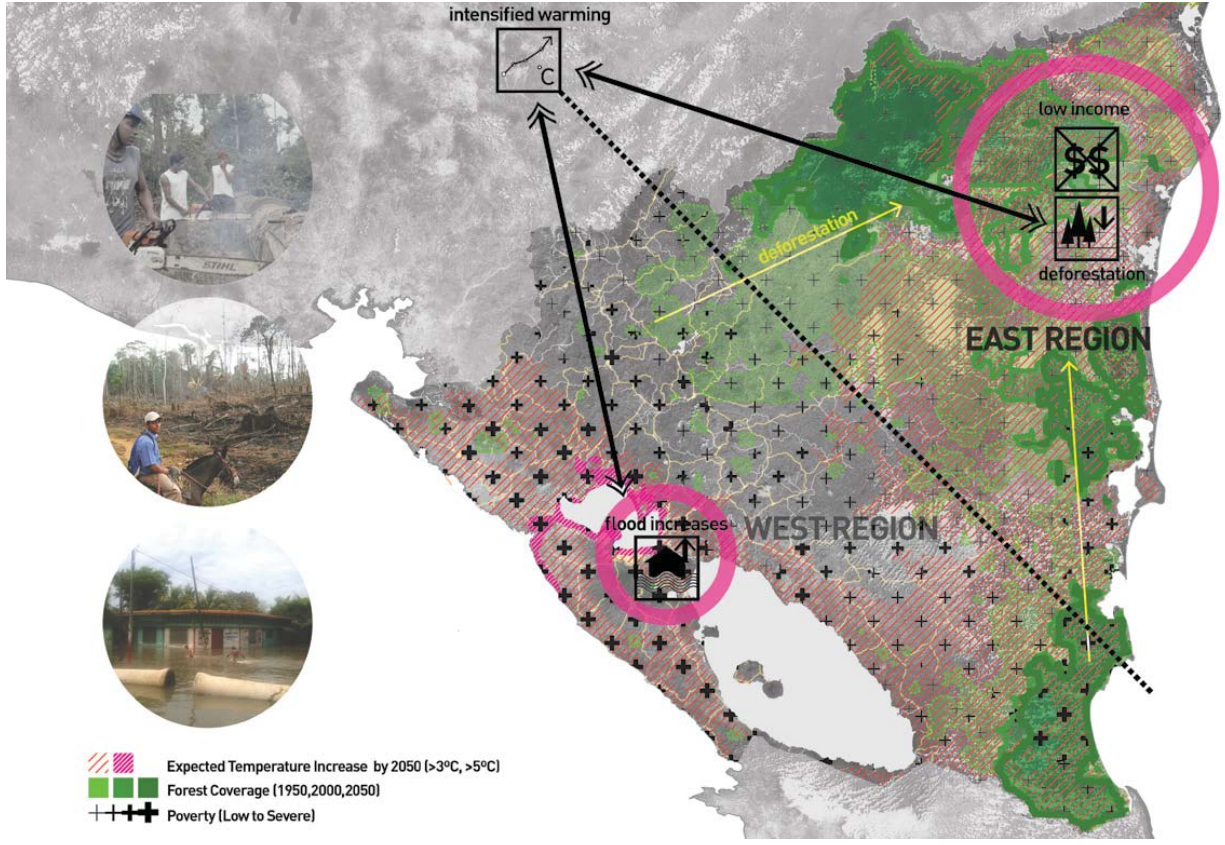
Our solution implements flood-resilient housing using the approach of amphibious construction, allowing them to live there safely without the economic disadvantage of repetitive rebuilding. The solution proposed for the most critical area would serve as an example for implementation in other neighbourhoods.



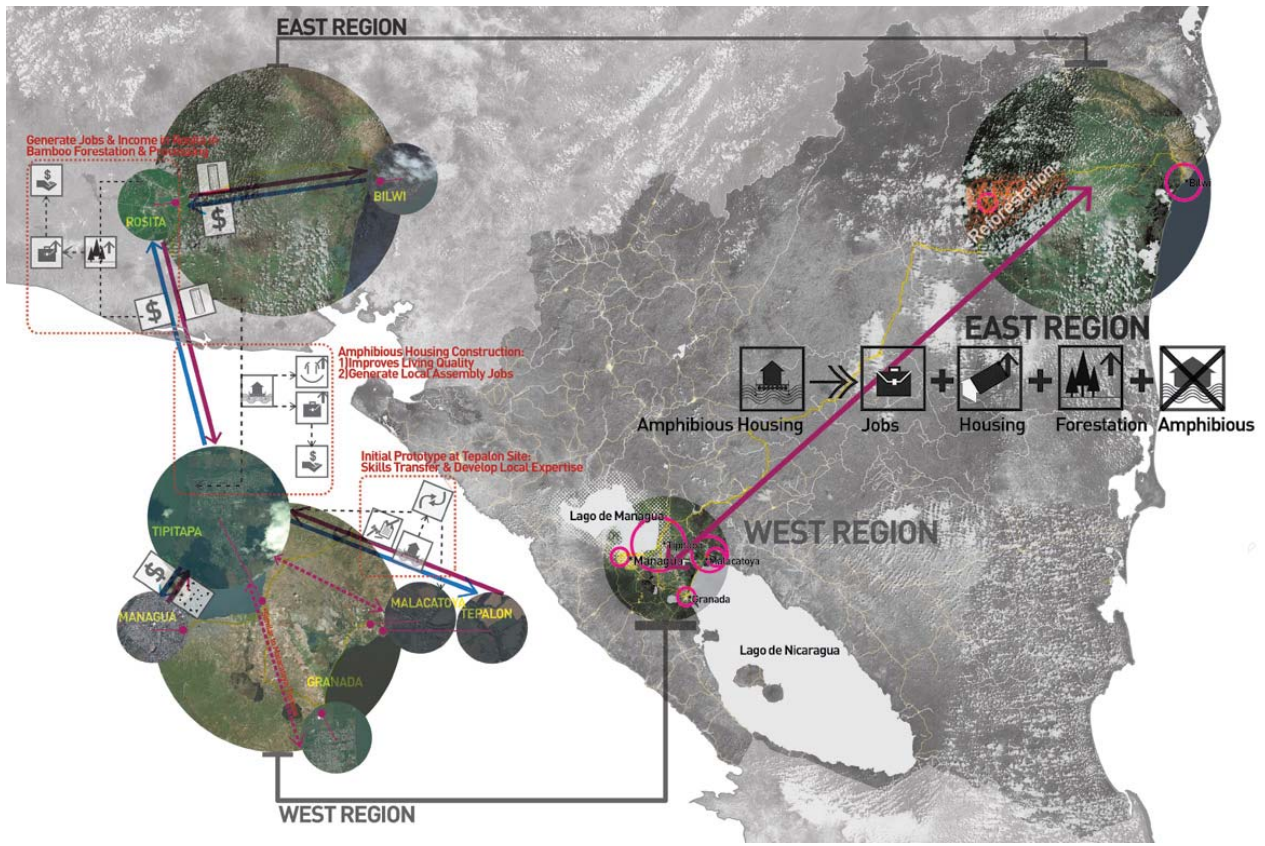
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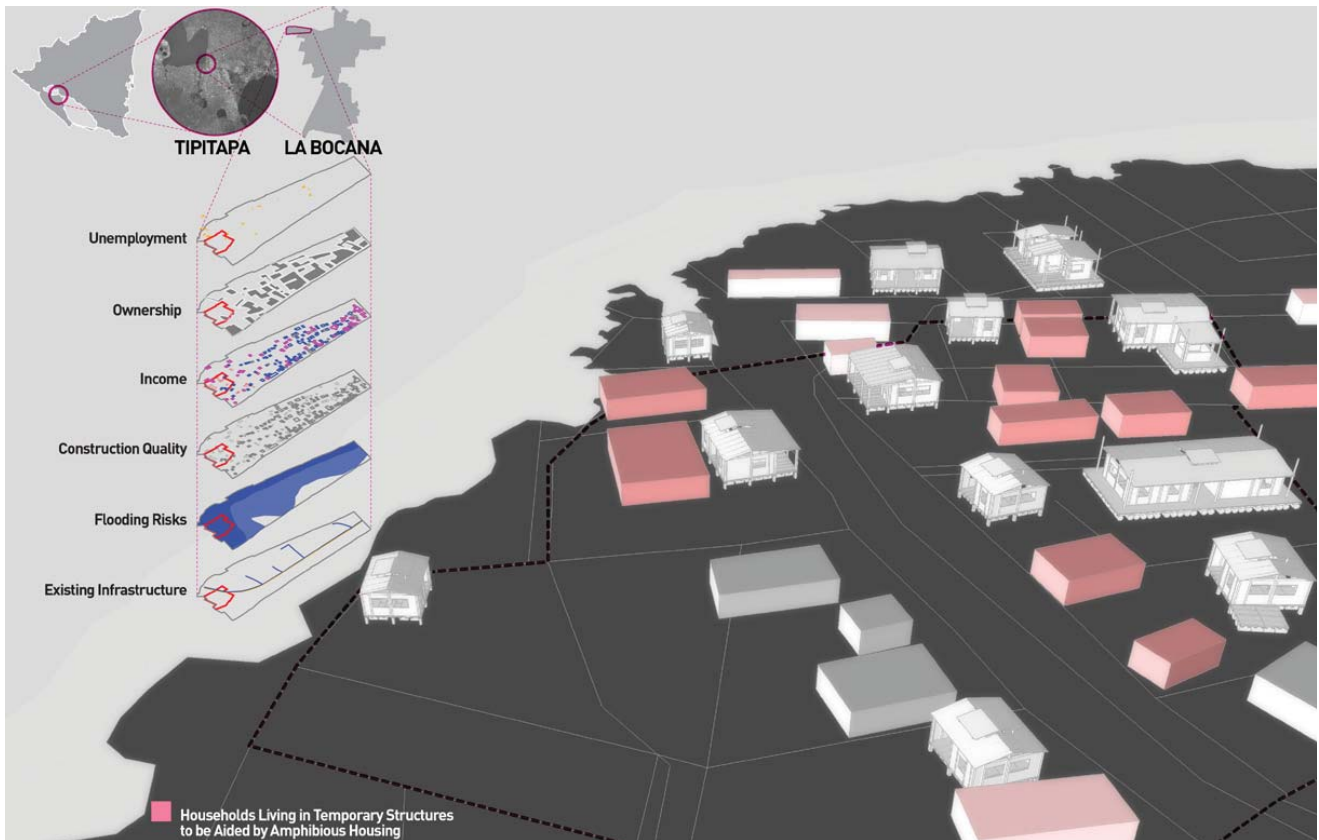
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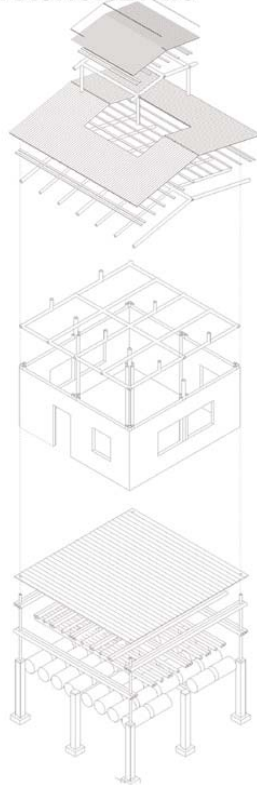


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## EXPLODED AXONOMETRIC



**URBAN**  
case: SAN SEBASTIAN



**SUBURBAN**  
case: LA BOCANA



**RURAL**  
case: TEPALON



**Assembly:** The proposal uses recycled plastic barrels as buoyancy elements due to their availability and cost-effectiveness. Vertical guidance posts allow the house to rise and lower passively - float on floodwater, then return to original position - resulting in low environmental impact. Bamboo is a renewable resource that is grown regionally and respond to the issue of rampant deforestation. Bamboo construction promote a 35% lower carbon footprint than the use of concrete block. This initiative facilitates direct jobs for local workers and indirect jobs for bamboo providers in indigenous communities.