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# Initiative spotlight: Guatemala DIY bamboo houses



## LESSONS LEARNT:

The carbon assessment revealed unexpectedly higher bamboo carbon storage in Guatemala, highlighting the underestimation of carbon impacts in the Global South due to reliance on Global North data

Deep community engagement led to a scalable solution, as evidenced by the Punta Brava community, which is expected to build more bamboo houses even after CSFEP's active involvement has ended

## CONTEXT

Guatemala has abundant under-utilized bamboo with significant landscape restoration and construction potential. Bamboo can sequester [~17 tons of carbon](#) per hectare annually, and engineered bamboo exhibits tensile strength comparable to steel

Many Guatemalans live in substandard housing and could benefit from building with bamboo, including victims of disasters such as Hurricanes Eta and Iota, which destroyed countless homes in 2020

## CSFEP'S APPROACH AND ROLE

- In 2021, CSFEP partnered with [CASSA](#) to distribute **DIY bamboo house toolkits** to climate refugees in Punta Brava, provide construction **training**, and **facilitate access to microfinance** for kitchen and bathroom installations
- The toolkit, featuring WhatsApp video instructions and requiring only a hammer, was **promoted through local government and community engagement**

## CSFEP'S ROLE

CSFEP **funded the toolkit development**, the building of **3 pilot homes and a high school** as part of the training, and the initiative's **sourcing study, carbon assessment, and communications**

## IMPACT

### COMMUNITY

- **Four pilot buildings were among the few that survived Tropical Storm Julia** in 2022, showcasing bamboo as a resilient alternative
- Trained residents used bamboo to **rebuild two traditionally built homes destroyed by the storm** – the two were not originally bamboo homes
- Trained residents acquired the skills needed to **start businesses, find employment, or maintain their own buildings**
- The town **planted 4 hectares of bamboo**, enough to provide materials for **40 homes annually within five years**, with the potential to sell surplus production

### ECOSYSTEM

- The initiative's success built an **evidence base that can drive further investment** in bamboo
- The **5th World Bamboo Workshop in October 2023** was held in **Punta Brava** due to global interest in visiting the successful initiative