

# Natural Building Guide

Choosing the Right Approach for Pakistan — a field guide for architects, NGOs & builders — [commune.pk](http://commune.pk)

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When the 2022 floods hit Sindh, cement structures cracked under the pressure while mud-and-bamboo shelters stood firm or were easily rebuilt with local labour. That's the starting point for what follows: four approaches to natural building already proven in Pakistan, organised around the question that actually matters if you're planning a project — which one fits your situation.

| Your situation                                                      | Approach                                                     | Proven precedent                                                                                                                          |
|---------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Post-disaster response — need speed and a trainable local workforce | <b>NGO-led rapid deployment</b>                              | RIZQ Housing Innovation Lab: 150 homes built, 400+ villagers trained since the 2022 Sindh floods, with Yasmeen Lari's Heritage Foundation |
| Rural, lowest possible cost, community willing to self-build        | <b>Traditional mud &amp; adobe, with technology transfer</b> | Pakpattan, 1977 — ~100 homes self-built after residents were trained and given material; still standing and in use nearly 50 years later  |
| Urban or peri-urban, need speed and durability, can access a press  | <b>Interlocking CSEB</b>                                     | Shahid Sayeed Khan's Indus Earth Trust: 10+ CSEB and bamboo housing models near Karachi                                                   |
| Budget grows over time, can't build everything at once              | <b>Incremental, expandable design</b>                        | Charles Correa's Incremental Housing at Belapur: a small core unit with room to expand as needs and finances change                       |

## NGO-led rapid deployment

Best when speed matters and you have — or can build — a trained local workforce, typically post-disaster. RIZQ's Housing Innovation Lab launched after the 2022 floods displaced over 1.7 million people in Sindh, in partnership with Yasmeen Lari's Heritage Foundation. So far it has delivered 150 eco houses, 150 smokeless stoves, 75 eco toilets, 19 hand pumps and 12 solar panels, and trained 400+ villagers.

## Traditional mud & adobe, with technology transfer

Best when cost is the binding constraint and the community itself will do the building. Pakistan already has working examples at community scale — Lahore Organic Village, Ejad House, the Ghulkin eco-village — and a historic proof point: in 1977, around 100 homes were self-built in Pakpattan after residents were trained and given material. Nearly fifty years later, the homes — and a community dispensary built the same way — are still standing.

## Interlocking Compressed Stabilised Earth Brick (CSEB)

Best when you need more speed and durability than mud alone, in an urban or peri-urban setting, and can access a press. Soil is compressed, often with a small amount of stabiliser, into dense, precise blocks that interlock like Lego — cutting labour and mortar. Ar. Shahid Sayeed Khan of Indus Earth Trust has built 10+ different CSEB and bamboo housing models near Karachi, each suited to different needs and budgets, winning the 2020 IAP Zero Carbon Design Award.

## Incremental, expandable design

Best when the budget will grow over time and the full house doesn't need to exist on day one. Charles Correa's Incremental Housing at Belapur gave families a small core unit and room to expand as their needs and finances changed, rather than a fixed structure built all at once — useful for anyone building on a budget.

## The honest gap

Knowledge isn't really the bottleneck here — tooling is. A CSEB press can be made locally or imported; it's available on demand, not a mystery. What doesn't exist yet is a genuinely low-cost, widely available machine that would put this within reach of far more communities and builders. Closing that gap needs dedicated funding and is really a separate project of its own.

## People to learn from

- **Yasmeen Lari** — Pakistan's first female architect; "barefoot architecture," zero-carbon homes from lime, mud, bamboo and stone; 2023 RIBA Royal Gold Medal
  - **Laurie Baker** — settled in India, spent his career relearning indigenous techniques for low-cost housing; Padma Shri 1990; founded COSTFORD
  - **Shahid Sayeed Khan** — founder, Indus Earth Trust; 10+ CSEB and bamboo housing models; 2020 IAP Zero Carbon Design Award
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## Working on a project?

We occasionally advise architects, NGOs and developers on natural-building strategy for housing, urban and community projects. Tell us what you're working on: [commune.pk/resources/project-inquiry](https://commune.pk/resources/project-inquiry)

*Full profiles of these practitioners, plus Nader Khalili, Hassan Fathy and Charles Correa, and the fuller story behind each approach above, are at [commune.pk/resources/natural-building](https://commune.pk/resources/natural-building) and [commune.pk/resources/architecture](https://commune.pk/resources/architecture).*

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