**[Post-flood design](https://www.dawn.com/news/1731037/post-flood-design)**

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The people of Pakistan have responded with great generosity to those displaced by the floods last summer. Yet, in their haste to rebuild homes most have not paid attention to sustainability. Clearly, there is an urgency to reconstruct homes for the displaced. However, what is also needed urgently is a consideration of how some forms of reconstruction can actually leave people worse off if a natural disaster strikes again. The critical issue right now is not whether to reconstruct or not — the answer to that is obvious — but how to do so sustainably.

Recently, I watched a short video message by a well-meaning celebrity who spoke about their experience of contributing towards rebuilding homes for the flood affected. With touching humility, they spoke about the importance of putting their fame and resources to meaningful use as well as the importance of treating flood-affected people with respect. As a mark of that respect, they added, they constructed ‘pukka’ homes for the displaced.

Cement dwellings will certainly be appreciated more than the pre-fabricated cabins that the former army chief unveiled in November for the flood affected in Balochistan. Press release photographs showed a symmetrical grouping of cabins aligned at right angles in a desert setting. The arrangement as well as the materials used highlighted the lack of natural fit with the social and environmental context. However well-meaning, the examples discussed above have two things in common: they are built without an eye to sustainability or future floods and with little or no involvement by the local community.

Is this the best we can do? Might there be other ways of organising housing for the displaced beyond charitable handouts and climatically unsuitable imported goods? Are there other considerations we should keep in mind, such as the possibility of flood recurrence in the area? What design choices would we make then? Might it be important to involve the communities that are impacted in not just designing but also constructing their homes, so that we are keeping communities alive, generating work and means of earning so as to not create further dependency?

Sustainable reconstruction must be centre stage.

There are other options of course. For some time now I have been involved in evaluating and scaling up the sustainable and community centred design that Yasmeen Lari, the well-known architect and currently Sir Arthur Marshall Professor of Sustainable Design at Cambridge University, has already utilised for flood-impacted households in Sindh. Prof Lari and her team designed flood-resistant housing built of mud, husk, bamboo and lime. Lime is critical because it binds more densely with earth even in standing water, for some time at least. Bamboo, used in particular ways designed by Prof Lari and her team, adds further strength to the structure.

This design has two main advantages. First, it incorporates the possibility of further floods in the region. Pakistanis need to prepare for ferocious floods at a more frequent pace than in the past due to climate change. Thirty million people cannot be expected to move away from flood-fed fertile land, as well as the spaces where their ancestors are buried. For both economic and cultural reasons people will return to flood-prone areas. We need to recognise that in our rehabilitation planning as well as the design of the houses being built now. This might include raised platforms for cooking and food storage in case of standing water, and locally available material such as lime and bamboo.

Second, and just as critically, the design supports local communities not just by involving them in the building process but in supporting local businesses. In this model, external support is provided primarily through access to materials such as lime as well as capacity building through training to build to the design. The community builds together with the trained artisans. The materials used are all local and sustainable: lime, bamboo, husk and mud. They are relatively inexpensive to buy, and in any case, their sale supports the local economy.

Those who have built their houses can train others in neighbouring villages. We have reports of some men, and crucially women, doing just that in exchange for nominal charges of up to Rs1,000 for each house. This is a far cry from the dependency mindset that some researchers have noticed in the case of those impacted by the earthquake in 2005.

In light of the government’s campaign for climate justice, it becomes imperative that sustainable reconstruction be placed centre stage. At a time when future floods are all but guaranteed, foreign exchange reserves are low, local economies are devastated and we have all rehearsed many times over how aid dependency cripples an economy, we need to go beyond assuming that flood reconstruction needs only money, not imagination, foresight and creativity.

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