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Eco Friendly Low Cost Housing in Bangladesh

Eco Friendly Housing for All

Bangladesh is among the most populous countries in the world with more than 1,100 people packed into every square kilometer. More than two million people in the capital city of Dhaka either live in slums or are without any proper shelter. Urban migration is mainly due to better employment opportunities - especially in the ready-made garments sector - and educational opportunities. While most people migrate for economic reasons, more than 26% leave for the cities because of natural disasters, river erosion and recurrent flooding.

In a developing country like Bangladesh –housing inadequacies and backlog have been increasing mainly due to the galloping increase in population; fast pace of urbanization and other social and economic factors, which include breaking up of the joint family system, and steep rise in the price of land, building materials and labour.

Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care.



Seventy five percent of the households are still living in simple huts or houses made of mud. Many house destroys every year in rural areas due to low quality housing, poor materials and wrong building practices. The affordable prices and customized mode of payment, corresponds perfectly to the needs of low and middle-income people living in rural areas can be ensured a better house as well.

low cost housing means housing at low cost for all sections of the population. The prime objective is to reduce cost and make housing an eco-friendly one. As natural calamities like flood and cyclone are common phenomena. This low cost housing should be durable and should have good living conditions for the dwellers.

The focus should not only be on rural areas but also on slum areas in big cities like Dhaka and Chittagong. Thousands of people are living here with sensitive housing condition. low cost housing should not mean low quality housing, although the cost and quality go together. The availability of land for public housing is very low.

But now due to urbanization, in rural areas low cost houses are nearly vanished. people are now trying to build their houses by brick, cement, sand etc. so, the rural sites are no like before.

Low cost houses like mud bamboo houses has lot of advantages than brick, cement house. and also one can easily beautify their houses in architectural view.

Advantages of Mud-Bamboo Housing:

The main advantages of mud-bamboo housing is, The ideal building material would be ‘borrowed’ from the environment and replaced after use. This ideal material would also be cheap and would perform well thermally and acoustically. If used carefully, mud come close to this ideal.

1. A well-built mud wall has very good sound insulation properties.
2. Earth does not burn, and earth walls do not readily provide habitat for vermin, mud walls generally have excellent fire and vermin resistance.
3. Mud walls can provide moderate to high thermal mass.
4. Mud is a good insulators. Since they are extremely dense they lack the ability to trap air within their structure, the attribute of bulk insulation that allows it to resist the transfer of heat.
5. Mud could have the lowest impact of all construction materials.
6. Build ability, availability and cost.
7. Mud can be also be laid to form arches, particularly over small spans (less than a meter), and even domes, although this requires high levels of skills as well as more stringent demands from engineering and approvals processes.
8. After brushing to get a fairly even surface, the final finish is a mud slurry, typically completed by hand. This slurry may also be the final water proofing coat (e.g. a mud and cow dung mix) or it may have a further clear coat of proprietary water proofing material. Linseed oil and turpentine can also be used as a final finish — and can be a very effective method of protecting walls susceptible to erosion.

9. It is extremely malleable and offers better insulation than steel-and-concrete structures, it decentralizes the construction process because it utilizes local material and technology and thereby obviates the need for a contractor, and it costs much less to maintain mud buildings.



Disadvantages of Mud-Bamboo Housing:

But there are problems associated with mud as a raw material for houses and the most serious is its vulnerability to water. Mud buildings have weathered best in extremely dry climates. Mud has a low tensile strength and comes apart easily, which makes mud roofs difficult to fashion and mud walls susceptible to rodents and thieves.

Initiatives:

To back again the traditional housing in rural areas initiatives should be taken. by think about the advantages of mud-bamboo houses one can easily build the low cost housing. Now engineering technologies are much developed about the use of mud & bamboo. so engineers are trying to give an architectural view of this houses. EWB always interested to work with this type of project.

By this housing we not only find the traditional house in rural areas but also find an artistic view of housing.

Last Word:

Mud-building can become a more attractive technology only if appropriate roofing material is developed, but very little has been done in this regard. mud structures do not deteriorate rapidly provided they are properly maintained. Part of mud's poor reputation is because long-established mud-building techniques have been forgotten or ignored. Though people have been building mud houses for thousands of years, the technology is still not sufficiently developed or widely known.