

# Alternative rural construction technologies in north east india

[Technology](#)



Dissertation

## LITERATURE REVIEW

### ALTERNATIVE RURAL CONSTRUCTION TECHNOLOGIES ( NORTH-EAST INDIA )

#### Introduction:

The North Eastern portion of India has ever been a absorbing country for travelers and adventurers. The rich heritage is exemplified through the ethnicity, tradition, support, and besides by the architectural typologies. Several distinguishable architectural characteristics are seen in North East provinces, which differ by clime and deep frozen traditions. The architecture of this country evolved in class of clip and were largely built by the dwellers themselves, without any preparation in building. Yet, due to uninterrupted engagement in the field of building, they finally came to cognize about the different margins considered in planing a house, which can be seen or understood through their home grounds. These houses, built with locally available stuffs, were sensitive to the bingenvironmentand took into consideration the restraints imposed by the clime.

These countries are able to supply its home ground with the building needs, but due to the deficiency of knowledge/awareness, these resources has non been utilized expeditiously. In order to use these available resources most expeditiously, it is necessary to advance the usage of advanced edifice stuffs and building techniques. Extension of energy and cost effectual edifice stuffs, use of agricultural by-products/wastes every bit good as locally available stuffs, cheaper and clip salvaging building techniques and efficient

house programs at low-cost cost, has a great significance in the present rural scenario.

This paper aims at the survey of common architecture of these country. Note the pros and cons of the present building scenarios, and better on them to do a more efficient home grounds, through alternate technologies/improving on the available resources to do a more efficient houses. The architectural solution can be attained through a deep survey and apprehension of this field.

The research inquiry being, How to advance and widen appropriate building engineerings to better rural architecture? Thus it aims to analyze the present rural architecture ( taking NE India as a mention ) and better on it, to utilize the available resources most efficient.

#### Reappraisal:

Alternate rural building engineerings aims at happening the resources available in the North East India, and bettering on them to do the most out of it.

Ever since adult male become colonist, he experiment assorted natural resources for constructing a shelter. Certain stuffs become the rule edifice stuffs and are continued to be used in building, some of them in its original signifier while some after intervention or byproduct of nature. But, due to scarceness of the resources, inaccessibility on site, deficiency of cognition for using the help stuffs and assorted other grounds, demands for innovation of new stuffs arise. Some of them, even though normally used in building

and dependable stuffs, are scarce or a menace to nature. Therefore, using the natural resources and utilizing them in a more efficient manner demands to be prioritized instead than trusting on imported materials/ engineerings.

Let's expression at the North east country as a whole and see, what the conditions of edifice building are, the pros and cons of the present scenario. Here is the program of a edifice made out of clay, ( writer ). In this, we have a house widening 6. 9m/ 4. 9m, it has an country in the which are being used for cookery and fixing nutrient, and comes the following subdivision, where other day-to-day activities happens, or instead their twenty-four hours infinite, and the other room being the bed room. All other activities like, bathing, fixing nutrient for farm animal, making their demands go on near their house. The present issues here are like, shelter for them while making their other activities outside their place. Sufficient air and light motion in the house. Unnecessary use of building stuffs, like for illustration, the thickness or the sum of stuffs usage ( beginning: writer )

in building the walls, roofs, flooring could hold been reduced by decently reenforcing the stuffs or by utilizing them in a more appropriate ways non merely to cut down the sum of stuffs used, but besides to do it last longer, fire cogent evidence or even utilizing other more appropriate stuffs.

In malice of the fact that stuffs used for building or programs of the edifice are non satisfactory, yet these present edifices provides them with a thermic comfort, and other assorted margins which one frequently fails to accomplish in the modern houses. Therefore, non merely implementing new materials/

design of a edifice or planning, bettering and happening alternate agreement on the pros of the present rural building and replacing the cons.

Besides, some or instead, many of the present issues faced in the rural building are merely because of the deficiency of cognition, the short approaches of these issues could be solved non merely by replacing the stuffs or alteration of design, but by agencies of minor alterations, like the sum of stuffs used, care jobs, etc. farther testing is needed, since cognition of grounds offailure/ short coming of certain issues are limited.

These issues could be solved by farther study/ research to supply the appropriate solutions and non merely rely on premises made to be the ground for failure of the bing design or certain stuff.

These research will take at analyzing farther more into these issues and seek to come up with an appropriate solution for the issues.

Alternate rural building engineerings non merely aims at merely changing/ bettering on the bing stuffs, but it besides aims at doing the house program for a more efficient usage of infinite, both the negative and positive. To suite a ) the clime B ) the geographics on which the edifice is supposed to sit degree Celsius ) the civilization ( including the faith, tradition, societal activities ) & A ; and most significantly vitamin D ) the inhabitants.

Therefore, alternate engineerings can be looked upon under three different stairss the first being the design ( planning of the house- before the onsite executing of the house ) , Construction ( materials- the onsite executing of

the designed house ) and Home/ home (culture- the after executing of the house ) .

1. The design ( planning of the house- before the onsite executing of the house ) - Design of a rural house is more complex and hard than the urban 1s, as it normally has to get by non merely for thefamily/owner but with their farm animal excessively ( Baker Laurie ) . There is besides normally a demand for covered infinite outside the house for all kinds of businesss, weaving, basket devising, cyberspaces and fishing, nutrient drying and processing etc. Because, many of the abodes if non all are normally husbandmans. The unfastened infinite around the house is every bit of import as the house itself, as it is really much in usage for cookery, storing, animate being, domestic fowl etc.

The present conditions in these countries could non supply desirable shelter for different season of the twelvemonth for the said demands, due to miss of cognition, economic position, etc. Therefore, these of import activities happens in the country which are uncovered/ sometimes making ineluctable issues during rainy season, rough summer/winter, etc. So, basic programs which aims at minimizing and spread outing every bit and when possible is needed or by supplying some short of shelter for these out-of-door activities for these seasons.

1. Construction ( materials- the onsite executing of the designed house )

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Execution is the phase where the conceptual is being shaped into things that can be sensed by other people. An thought must be realized in stuffs ( Henry Glassie, 1984) materialisation raises complexnesss in architectural communicating non met in verbal communicating and it limits construct. The determination to make a edifice is the determination to destruct some portion of the material existence. Our natural things are destroyed- trees have been cut down, rock being broken into pieces, old places are razed off- to do things better. The effort to better our homes by destructing the nature is technological. Every technological act entails alterations in two major dealings: one between the homo to the non-human universe, and the other one within the universe of the people itself. Technologyrequired the forfeit of extant stuffs that finally do non owe their presence to human existences.

Therefore, by sagely using whatMother Naturegave us, we non merely give back to nature, but the human- ourselves, as Brundtland ( 1987 ) provinces, Sustainable development is development that meets the demands of the present without compromising the demands of future coevalss to run into their ain demands. This definition of Brundtland contains within it two cardinal constructs: the construct of demands, to which overruling precedence should be given and the construct of restrictions, to run into the present and future demands.

One needs to take stuffs for building sing the undermentioned points-

- They should be locally available.
- Preference should be given to stuffs of low embodied energy.
- Minimum C footmark stuffs.

- Biodegradable and renewable stuffs.
- They should hold long life and lasting, and
- Materials should be reclaimable and reclaimable.

1. Home/ home ( culture- the after executing of the house ) – Culture, intending the people who are populating in the executed house, the tradition, society, life style, is one of import facet for planing a house. A place is a house where the household lives. So, the manner the household maintains or uses the house besides plays an of import function in the lastingness of the house, stableness and even thermic responds of the house. For case, a traditional Earth houses provide changeless thermal comfort by regular care, it needs to be plastered after every five old ages, due to its exposure to the exterior atmosphere. If non, the thermic comfort provided by the houses reduces, same goes for a thatch roof, without regular care H2O sipping through the roof can be experienced. Therefore regular attention has to be provided to the houses, even after it is one time constructed. Last, this research/ findings purpose at supplying a building stuffs which is more lasting, needs less care, and stable, these can be achieved by choosing the right type of stuffs for the right clime, geographics and handiness, or by intervention of the bing stuffs to do it needs less care. Yet, continue attention has to be taken by the proprietors, for the place to supply them healthy built in environment to populate in.

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