

Tribal Redevelopment with Community Participation

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Abstract

The Paper tries to unfold the paradox that exists in the tribal community with respect to its redevelopment. The study discusses the possible measures that can be taken to resolve the current issues in the tribal redevelopment programs. Tribes are the indigenous inhabitants of our country who have been living in a life based on the natural environment and have cultural patterns suited to their physical and social environment. They are the poorest; most marginalized, oppressed, and impecunious people in the country. Tribal development is one of the most important subjects which draw severe and widespread concern in the country. But it has not yet given the importance what it needs.

The research deals with the quality of the life of 'Muthuvan' community (tribal community in Kerala and Tamil Nadu mainly lives in the Western Ghats) in former and later periods of rehabilitation and redevelopment.

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I. INTRODUCTION

The tribal groups may be considered as the oldest ethnological sector of the national population. The term 'Adivasi' is also used for a tribal, which implies the original inhabitant of the country. Thus, tribals are the original inhabitants of India.

Tribal development in India has been a subject of discussion not only among academists and scholars but also within high ranking persons in various political and economic sectors of the country. It has become a subject which drew severe and widespread concern and invited attention from several quarters that range from policy makers and development planners to academists providing material for all of them. Since the state is becoming pivotal in the context of tribal redevelopment, the public policy and administrative system relating to this field has been subjected to severe scrutiny put together cogently in all these years. Thus it comes without saying that tribal development has ascended to occupy a crucial place in the agenda of social science and architecture research in the country. Here this dissertation is aimed to study and evaluate the quality of the life of 'Muthuvan' tribal in former and later periods of rehabilitation and redevelopment and propose guidelines for holistic development with community participation.

The rest of the paper is organized as follows. Primary studies are explained in section II. Case study analysis, results and suggestions for tribal redevelopment are presented in section III. Concluding remarks are given in section IV.

II. LIVE CASE STUDY

The objective of the study included to explore the existing tribal settlements in Kerala and understand how tribal redevelopment and rehabilitation work, to identify the architecture and quality of life in tribal settlements. This would then help to analyse the challenges and issues of rehabilitation.

Literature case studies and reviews chosen to explain the possible better method; rehabilitation and redevelopment with community participation. The post-earthquake redevelopment of the Gandhi Nu Gam village, Ludia, Rajasthan by Vastu shilpa foundation was carried out through a holistic, participatory approach that continued the socio-cultural traditions and building systems of the local area. The redevelopment process enhanced the quality of life in the villages without altering their traditional ways of life therefore the users are completely satisfied with it. The live case study was held at the Kulachivayalkudi or Kulachivelkudi, a Muthuvan tribal settlement, situated in

Kanthalloor. Kulachivayalkudi is one of the rare tribal settlements situated in the edge of forest, in the revenue land.

2.1 Traditional building practices and lifestyle of Muthuvan Tribes –

The Kudi (Muthuvan's hamlet) is very different from the traditional Indian village which is a cross-sectional unit of society consisting of several castes living together in specified degrees of spatial separation, co-operation and ritual relations. On the other hand, the Kudi is an aggregation of dwellings of people of the same caste or community and an economically self-sufficient unit; it has crucial Judicial functions; it is a potentially mobile unit, both in respect of membership and territoriality.

Muthuvans tend to build their house in the interiors of the forest, especially in places where people from outside cannot

reach. The living house is a simple structure of grass, poles and mud.

Factors influencing Muthuvan hut design:

1. Climate: The special construction technique using poles and the mud, keep the interior cool during summer and warm during the winter, monsoon seasons. The short house elevation will help in maintaining the indoor air temperature and also respond to the high wind in the region.
2. Culture and family structure: The planning of individual huts is suitable for their lifestyle and culture. The houses are designed with a hall and a kitchen which is appropriate for the family structure.
3. Availability of building materials: The buildings are constructed using the locally available materials.

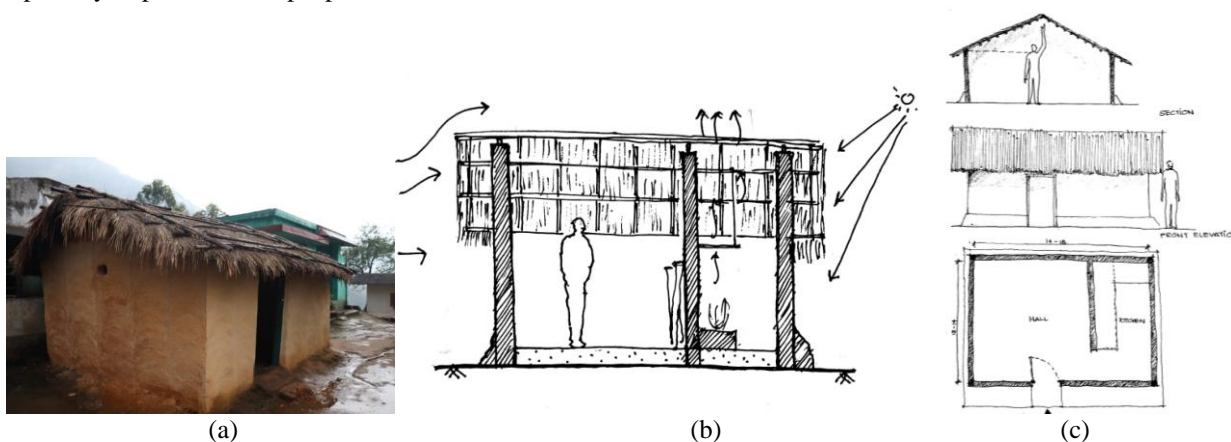


Figure 1. (a) Muthuvan hut (b) section (c) typical drainings

Wall is made of wooden frame and mud and Plaster is also from mud. Roof is made of bamboo/wooden framework covered with thatch. At first, prepare a wooden frame on the plane foundation for the wall and then cover the frame with mud from both the sides and plaster it well. The floors of the Muthuvan houses are made out of mud. Occasionally, the floor is plastered and repaired with the use of mud. They use sticks for the roof and cover it with grass.

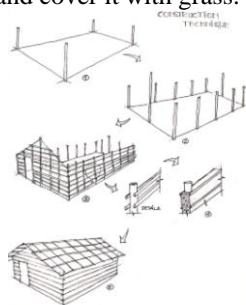


Figure 2. Building construction technique

2.2. Development projects in Muthuvan kudi –

The first housing project for Muthuvan tribes living in Kulachivayalkudi (a Muthuvan tribal settlement, situated in Kanthalloor, a virtually rain shadow village, lying in the eastern side of the Western Ghats) was in 1985-86. Masonry wall is made of bricks and roof is made of wooden framework and covered with tin sheet. The 17'x16' individual house consists of a veranda, a room and a kitchen. In second project there was an additional hall provided. The bricks were replaced with the cement blocks. The roofing was made of asbestos sheet over the timber frame. The latest development project was life by the state government. The new house consists of two bedrooms, a hall, a kitchen and toilet. The area requirement is 650 sq. ft. Most of the buildings in life project are under construction.

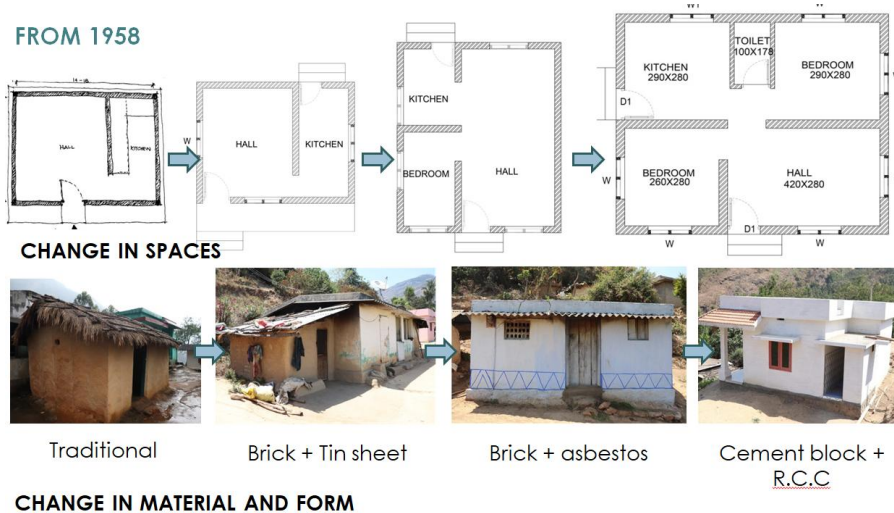
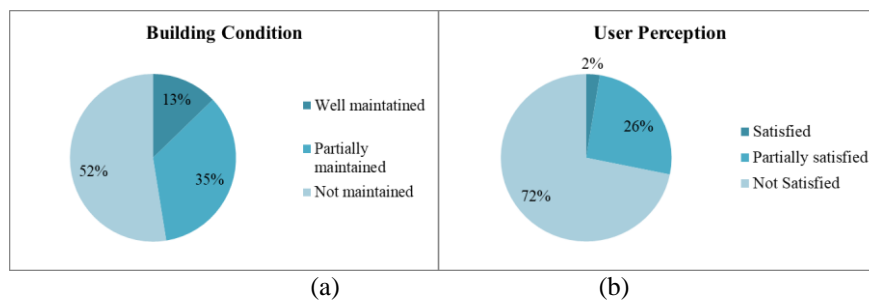


Figure 3. Development projects

New water harvesting systems and amenities like community hall, school, anganwadi etc. were also introduced. The Sathram (bachelor hall) and Valaymapura (seclusion shed) in Kulachivayal Kudi are developed under various development schemes by government.



Graph 1. (a) Building condition after redevelopment projects (b) User perception on redevelopment project

III. CASE STUDY RESULTS AND SUGGESTIONS

3.2. Case study analysis and results –

The studies explained how the quality of life and lifestyle of the tribal people changed after the redevelopment and the problems in the current model of development.

The main merits and demerits remain after the implementations are:

1. A material up gradation of the household is seen in the tribal rehabilitation project which is a negative factor because the new materials are not suitable for the climate.

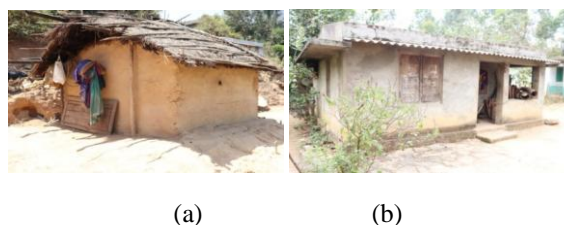


Figure 4. Change in built form, construction materials and techniques (a) traditional house (b) new house

2. Provision for approach road is seen as a first motto which is successfully implemented in most of the cases.
3. Year by year scheme formulation and policy building for tribal redevelopment is significantly increased.
- 5.
4. Poor maintenance and lack of awareness of newly introduced technologies and systems lead to the failure of such approaches.



Figure 5. New toilet block

6. The facilities provided may not satisfy the felt needs of the people, but it may be according to the concept of planners about the further development

and up-gradation of the area and people which often leads to dissatisfaction and omission.

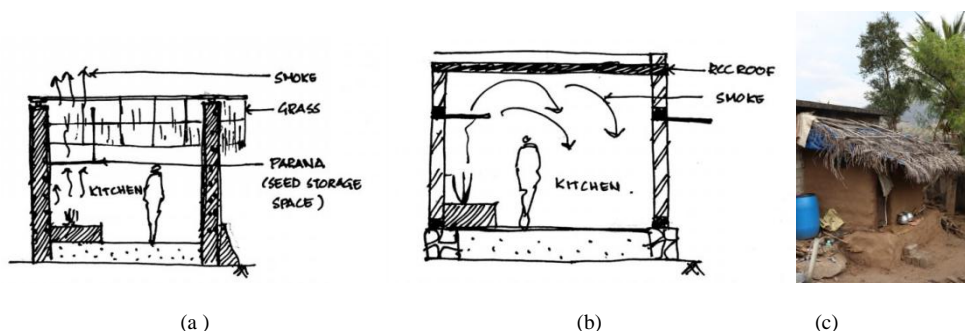




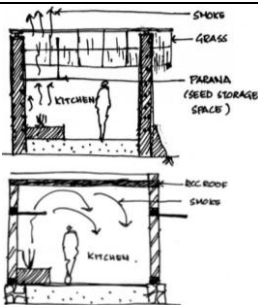
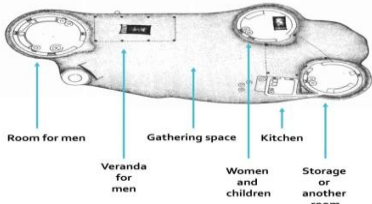
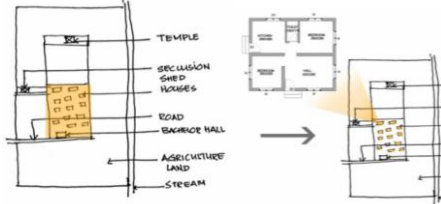


Figure 6. Omission of new facility (a) Traditional kitchen (b) New kitchen (c) Newly built traditional style kitchens adjacent to the new houses.

7. Ignorance about their rights on the property, forest, etc.

Sl. No.	Parameters	Case study 1 Gandhi nu gam, Ludiya	Case study 2 Kulachivelkudi, Kanthalloor
1.	<i>Continuum of Tradition</i>		
	a. Continuation of traditional built forms	Architect learned from the vernacular and traditional house form of the region and new ones built like the same. 	Architect or planner did not study on the traditional built forms and practices — new ones built like any other LIG housing. 
	b. Continuation of traditional building materials and construction skills	Use of traditional and local materials and construction techniques are followed in new construction. 	New materials like bricks and asbestos were provided in the first phase development and concrete blocks and asbestos in the second phase. Concrete blocks and RCC roof provided in the latest phase. None of the new materials was appropriate for the location and the lifestyle of people.
	c. Continuation of traditional ways of life	By continuing the traditional built form which is highly related to them socially, culturally, functionally and emotionally.	Planned like a typical LIG housing project, so did not consider the family and social structure of the community.

			
	d. Continuation of social or neighboring bond	Users get a choice for their neighbors and therefore social and neighboring bond continued. 	Separate and individual houses for each family. 
	e. Continuation of traditional craft	Traditional crafts were conserved, encouraged and supported with market help.	Traditional ways of construction and craft is endangered from the community.
2.	<i>Participatory Approach</i>		
	a. In choosing site location	Site selection was made on mutual understanding.	New buildings were constructed on the same site.
	b. In creating the site layout	The site layout is designed as per user's feedback and finalized the layout on the actual site.	No role for users in the design of individual houses and the whole settlement.
	c. In building houses	Followed the self-help production process.	It is completely done by contractors and other workers from outside the settlement. No role for users.
3.	<i>Elements of Change</i>		
	a. Toilets and sanitation facilities	New toilet and sanitation facilities were introduced and providing training for its use and maintenance.	New toilet and sanitation facilities were introduced and did not provide any training for its use and maintenance.
	b. Introduction of new amenities	New amenities like school, guest house, market places, etc. were introduced.	New school and community hall were added. However, the community hall is not in use.
	c. Irrigation and water harvesting projects	Water harvesting pond and canals connecting the dam and village were introduced.	No new irrigation projects.
	d. Development projects in the agriculture field	Machines for agriculture, new agriculture practices, and awareness and education programs were provided.	New seeds were introduced, and it leads to the endangerment of indigenous agricultural practices.
	e. Introduction of new technologies and machinery	Earth block stabilization machine provided.	-
	f. Electricity	Solar panels and electricity provided however the solar panels have failed.	Solar panels and electricity provided but the maintenance is not on time.


4.	<i>Economic impact</i>	A range of economic opportunities have been established- community craft center, building material bank, retail outlet, etc.	New market place established in Marayur town which is almost 20 Kms from the settlement. Introduced lemon grass oil distillation technique.
5.	<i>Environmental impact</i>	The houses and the whole village are designed constructed using locally produced materials and appropriate technology. It was in a holistic and sustainable way and hence reduced the environmental impact.	The houses and the whole village are designed constructed using entirely new materials and inappropriate technology. It was not holistically and sustainably and hence increased the environmental impact.
6.	<i>Social impact</i>	The entire project was established on the combined efforts of villagers who were included in the designing and planning process of the new village. An increased cooperation is nurtured within people of varying faith traditions.	The project was entirely new for their lifestyle, and they do not participate even in a single stage of the project; it leads to lack of sense of belonging and responsibility and ownership among the people.
7.	<i>Nature of changes and forces for changes</i>		
	a. Additions	Rooms, attached toilets, workplaces were added to the old buildings and layouts.	New kitchen was added to the houses in their traditional way because the new building was no suitable for the climate and their lifestyle.
	b. Alterations	Few materials were replaced by new materials like roofing tiles. 	New materials like asbestos replaced a few materials like Mangalore roofing tiles. Interior walls in the new houses were plastered with mud.
	c. Omissions	The introduction of solar panels or house has failed because of the maintenance needs, and they do have an uninterrupted power supply, so they do not require it.	Newly build community hall, not in use; they use their old community hall- 'sathram'. Bedrooms in the new houses used as storage space.
	d. Personalization and adaptations	Personalization through exterior elements and décor, spaces	
	e. Forces for change	Socio-cultural aspects including changes in family structure. Economic and economic functional aspects. Technological development.	The new building was not satisfied with the needs of users and not responds to the climate and the geography of the site. Other socio-cultural aspects.

Table 1. Parameter analysis of case studies

From the above case studies, following common parameters were identified for finding how they are implanted and the percentage of success achieved.

1. Continuation of tradition: Continuation of tradition in terms of built form, building materials and practices, lifestyle, social and neighbouring bond is very crucial for a successful completion of redevelopment project.
2. Participatory approach: The redevelopment should address the requirements of inhabitants and consider all aspects of the community and the people.
3. Elements of change: Introduction of new facilities and techniques are important to improve the quality of life. However it should be implant with utmost care and with proper training.

4. Environmental impact: The whole project should be respect the environment and should not create negative impacts on environment because most of the tribal communities are living in the environment sensitive area and their life is completely depend on that.

5. Social impact: Project should not make any negative social impact. The best way to eliminate this is involving beneficiaries in project and it will increase the corporation between people.

6. Management and maintenance: Management and maintenance is important as design and construction.

3.2. Suggestion for tribal redevelopment –

According to geography, site condition, context, tribal community the adoption of redevelopment and rehabilitation method may also vary. Tribal redevelopment projects need to

address all the challenges in order to provide a mechanism for holistic and sustainable development of tribal communities and settlement. What we need is a holistic approach;

- An integrated, inclusive and participatory approach that primarily needs an understanding of abilities, choices and willingness of tribal people.
- Must consider the location-specific and innovative alternatives for tribal redevelopment.
- Conduct a baseline survey to know the community and to identify the local issues before finalising the plans.

- A benchmarking impact analysis between the physical and the socio- cultural environment may provide insight in prioritisation of issues that could lead to a sustainable plan of action through inclusive planning that is participatory as well.
- Prioritise the activities based on findings of the baseline survey in the community and share the findings through several layers of consultation to make the design ultimately community friendly.

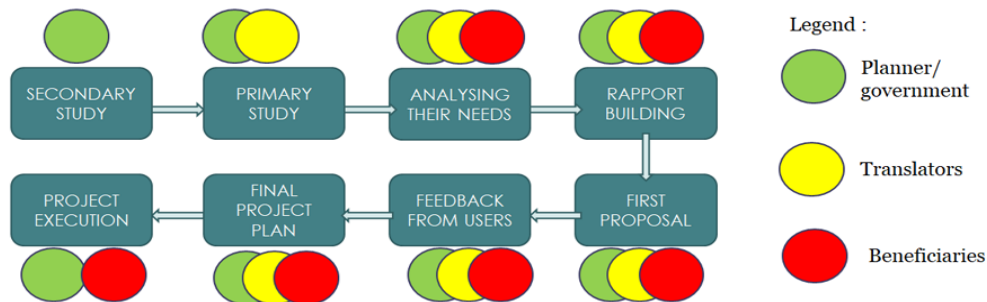


Figure 6. Scheme for tribal redevelopment plans

IV.CONCLUSION

Despite the fact that rehabilitation and redevelopment is done with at most care, gets limited to either structural or infrastructure redevelopment, but a complete solution for tribal settlement is to redevelop architecturally, which combines structural, infrastructural and social rehabilitation. However, what is concluded that it is necessary to identify and improve the value of existing resources in the tribal settlements and their ability to self-organisation of subsistence and economic activities then only it can be a complete package. We can promote an integrated, inclusive and participatory approach that primarily needs an understanding of capabilities, choices and willingness of tribal people and active community participation at every level from designing, construction and to completion and maintenance. For a successful tribal redevelopment and rehabilitation project, it is necessary to develop a sense of belonging.

REFERENCES

- [1] Iyer, L.A.K., "The Travancore Tribes and Castes", Vol.1, Government Press, Trivandrum, 1939
- [2] Menon, Madhava, "The Encyclopaedia of Dravidian Tribes", Vol.II, The International School of Dravidian Linguistics, Trivandrum, 1996
- [3] Louis A.A.D., "Tribes of Kerala", Bharathiya Adimjathi Sevak Sangh, New Delhi, 1962
- [4] Hatch, C. Richard. "The Scope Of Social Architecture", Van Nostrand Reinhold, New York, 1984
- [5] Boban K. Jose, "Tribal Ethnomedicine: Continuity and Change", APH Publishing House, New Delhi, 1998
- [6] Manjusha, K.A., "Lights and shadows of tribal development in Kerala: a study on the Muthuvan tribe of edamalakkudy tribal settlement in Idukki district" THE DAWN JOURNAL Vol. 2, No. 1, January - June 2013 Pp.275-283.
- [7] Adivasis | The Voice Of Truth (complete Book Online), <https://www.mkgandhi.org/voiceoftruth/adivasis.htm> (accessed May 3, 2018).
- [8] 11 Measures Regarding Tribal Development In India, <http://www.yourarticlelibrary.com/tribes/11-important-measures-taken-for-tribal-development-in-india/> (accessed January 24, 2019).
- [9] Tribal Development In India -a Study In Human Development, <http://magazines.odisha.gov.in/Orissareview/febmar2005/englishpdf/tribaldiiasihd> (accessed April 30, 2019).
- [10] Rosaline Tobing, Rumiati, "Implementation of Community Participation Concept in Rebuilding Housing Post Earthquake Disaster" International Journal of Engineering and Science Vol. 2, Issue 3 (February 2013), Pp. 55-63.
- [11] Spatial Distribution Of Tribal Population And Inter Tribal ..., <http://www.iosrjournals.org/iosr-jhss/papers/Vol3-issue3/D0332330.pdf> (accessed April 30, 2019).

- [12] Scheduled Tribes In India - Secure Ias, <https://secureias.com/tribals-in-india/> (accessed April 30, 2019).
- [13] Tribals In Kerala, http://shodhganga.inflibnet.ac.in/bitstream/10603/43888/7/07_chapter3.pdf (accessed April 30, 2019).
- [14] Implementation Of Community Participation Concept In ..., <http://www.researchinventy.com/papers/v2i3/H023055063.pdf> (accessed April 30, 2019).
- [15] Post- Earthquake Reconstruction In Gandhi Nu Gam, Ludiya ..., <https://www.slideshare.net/BSHF/post-earthquake-reconstruction-in-gandhi-nu-gam-> (accessed January 26, 2019).
- [16] Secure Synopsis: 24 October 2018 - Insights, <https://www.insightsonindia.com/2018/10/24/secure-synopsis-24-october-2018/> (accessed January 26, 2019).
- [17] <http://footprintsearth.com/projects/housing/ludiya.htm>
1
- [18] <http://siaphotography.in/blog/ludiya-kutch-another-beautiful-kutch-village/>
- [19] Kutch Tours And Travels, <https://www.kutchtoursandtravels.com/22-place-detail.html> (accessed February 4, 2019).
- [20] Gandhi Nu Gam - World Habitat, <https://www.world-habitat.org/world-habitat-awards/winners-and-finalists/gandhi-> (accessed April 30, 2019).
- [21] Community Redevelopment | Ludiya, <http://www.priyashah.com/mig/ludiya.htm> (accessed November 29, 2018).
- [22] Housing Report Traditional Rural House In Kutch Region Of ..., <http://www.world-housing.net/WHEReports/wh100080.pdf> (accessed February 6, 2019).
- [23] Bhonga Vernacular Architecture Of Gujarat - Slideshare, <https://www.slideshare.net/AniruddhDubey/bhonga-vernacular-architecture-of-gujar> (accessed April 17, 2019).