

**An inquiry into propensity of dwellers in the Udagaldebokka isolated forest-dependent community to resettle off the forest:
A cultural consensus analysis**

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1. Introduction

This ethnographic study investigates the culturally determined tendency of the dwellers in an isolated forest-dependent community in Sri Lanka to resettle away from the forest and closer to other human settlements. This community, residing in a small hamlet (Udagaldebokka) surrounded by the thick Knuckles forest, consists of 33 families belonging to four generations. Our observations revealed that most of the dominant cultural components, such as food habits, medicinal practices, livelihoods, and spiritual beliefs of the Udagaldebokka dwellers, are closely linked to the forest. Given the heavy dependence of the Udagaldebokka dwellers on forest resources and their dire living conditions, a culturally sensitive program to relocate the entire community can have implications on both forest conservation goals and welfare standards of the community. Such a relocation program needs an in-depth insight into shared cultural models shaping dwellers' willingness or reluctance to migrate. To quantitatively determine whether the tendency of the Udagaldebokka dwellers to leave their current hamlet and resettle elsewhere off the forest remains a coherent culture within their community, a cultural consensus analysis was conducted.

2. Materials and Methods

An ethnographic research design was adopted to conduct this study. A close mode of communication was maintained with the members of the community to learn their perspectives on resettlement.

A Cultural Consensus Analysis (CCA)(Paris et al., 2015; Romney et al., 1987) was performed to investigate the factors (i.e., Contentment with the current place of residence, uncertainty in capacity to adapt to a new environment, perceived opportunities for development if resettle off the forest and subjective norms on migration and resettlement) underlying the Udagaldebokka dwellers' propensity to leave their village and resettle off the forest. CCA is founded on the assumption that people who share a common culture also possess a shared cultural knowledge. A questionnaire containing 36 items, which attempted to gauge the aforementioned four construct factors, was developed based on field observations, semi-structured/ unstructured interviews and a free listing survey (Quinlan, 2017). The data, using the questionnaire, was collected from a sample of 28 community respondents.

First, an Informal Cultural Consensus Model (ICCM)(Weller, 2007) was employed over the entire sample and the same analysis was repeated with different subgroups of the sample (i.e., clustered based on gender and generation). The ICCM applied a non-rotated un-weighted least squares factor analysis that was performed on respondents after transposing the data matrix.

Next, Cultural Answer Keys (CAKs) were constructed to identify the culturally appropriate answers. By using the constructed CAKs, a Spearman Correlation Analysis was conducted to investigate whether the dwellers' cultural knowledge varied by subgroups. Finally, a Correspondence Analysis was conducted to identify whether there was a pattern in the way how dwellers were willing to resettle off the forest.

3. Results and Discussion

Table 01. Cultural Consensus Analysis Results

	Eigenvalue ration	Percentage of variance explained	Number of negative loadings	Mean factor loadings	1 st Number of Cases
Full Sample	5.06	42.17	0	.63	28
Gender					
Male	4.39	44.13	0	.63	16
Female	3.84	45.09	0	.59	12
Generation					
1 st	2.77	44.53	0	.64	10
Generation					
2 nd	4.37	48.47	0	.68	12
Generation					
3 rd	2.65	48.36	0	.69	06
Generation					

An ICCM is deemed valid if three criteria are met :1) The ratio of the first and the second eigenvalues must be larger than three to one; 2) Loadings on the first factor for individuals must be positive; and 3) The mean factor loading must be greater than .50. (Weller, 2007)

According to the results obtained, for the whole sample, the ratio between the first (11.808) and the second eigenvalues (2.33) equalled 5.06, which was over the cut-off ratio of 3 to 1. The average variance accounted for by the first factors was 42.17%, and the mean first factor loading (0.63) was over the threshold value of 0.5. Individual loadings on the first factor for all the items were positive. As the model met with all the three criteria, it can be concluded that a cultural consensus on resettlement exists among the community.

As stated earlier, an ICCM was employed on each sub-group extracted based on gender and generation. Each sub-group scored a mean first factor loading that was above 0.5 and none of the sub-groups reported negative loadings on the first factor. The ratio of the first and the second eigenvalues for all the sub-groups either surpassed or approximated the accepted threshold value.

As each sub-group revealed a coherent cultural model on ‘resettlement propensity’ among the members within each sub-group, a Spearman Correlation Analysis was conducted to see whether the dwellers' cultural knowledge varied by gender or generation. According to Spearman's Correlation Analysis results, there was no statistically different cultural knowledge on resettlement between men and women in Udagaldebokka community ($r_s = 0.85, p < 0.001$). As the results further revealed, regardless of generational differences, all the members within the community shared a common cultural knowledge on resettlement (1st-2nd generations: $r_s = 0.83^{**}, p < 0.001$ / 1st-3rd generations: $r_s = 0.71^{**}, p < 0.001$ / 2nd-3rd generations: $r_s = 0.77^{**}, p < 0.001$).

The final cultural answer key confirmed that the cultural model consisted of four belief dimensions; 1) Contentment with the current place of residence, 2) Uncertainty in adaptive

capacity, 3) Perceived opportunities for development if resettled off the forest and 4) Subjective norms on migration and resettlement. No major differences were observed between the cultural answer key obtained for the total sample and each answer key obtained for each sub-group. In overall, the results indicate the homogeneity in perceptions and preferences regarding resettlement that exist within the population of this traditional community regardless of demographic differences.

According to Correspondence Analysis results, the study could identify how different rewards can shape the willingness of Udagaldebokka dwellers to resettle off the forest. Most of the dwellers were willing to resettle off the forest if a three-acre land is provided to each household in a context where the whole community is willing to migrate together. If a house is provided, most of the dwellers were willing to leave the current location with their respective families and close allies, even if the other people in the village are reluctant to go with them. A job was found to be the most influential reward that could motivate most of the dwellers to resettle off the village as individuals.

4. Conclusions

As the findings revealed, a coherent cultural model on ‘Resettlement Propensity’ exists among the Udagaldebokka dwellers regardless of their age and gender differences. The revealed cultural model consists of four belief dimensions; (1) contentment with the current place of residence, (2) uncertainty in adaptive capacity, (3) perceived opportunities for development if resettled off the forest, and (4) subjective norms on migration and resettlement. Therefore, the above dimensions can be considered in designing a program to effectively resettle the people in Udagaldebokka away from the forest. As the study further revealed, rewards can be used to motivate the Udagaldebokka dwellers to leave the village and resettle elsewhere.

5. References

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