

ASSESSMENT AND VALUATION OF PHYSICAL CAPITAL IN A RURAL LIVELIHOOD SYSTEM: A STUDY ON KARBI-KUKI TRIBES OF KARBI ANGLONG DISTRICT, ASSAM

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Abstract

Physical capital constitutes as one of the most important determinant of livelihood pattern. Valuation of the various physical assets owned by two hilly tribes viz. the Karbis and the Kukis are assessed in this paper to understand the quality of the physical capital and social condition of both the tribes. The district of Karbi Anglong primarily characterized with hilly, rugged and inaccessible terrain has subject to poor state of physical, social and economic infrastructure. The focus on this paper is to explore the role of Physical capital in relations to the Rural Livelihood System and the links between Physical assets and Livelihood among the two hill tribes. Selecting some specific indicators to measure the magnitude and compare the importance of Physical assets in a traditional livelihood system like that of the Karbis and the Kukis are the main attention of this study. The study is mainly based on field study conducted by the author among the Kuki-Karbi tribe in Karbi Anglong District, Assam. The data generated in this paper is mainly based on primary sources. The paper concludes that Physical Capital plays a significant role in development of social and economic status of both the tribes.

Keywords: Assessment, Physical Capital and Rural Livelihood.

1.1 INTRODUCTION

Economy of the households explains the living standard and condition of the people which is directly linked to their income source. Physical capital comprises of the basic infrastructure needed to support livelihood meet the basic needs to make people more productive in order to achieve a better socio-economic development (DFID,1999). It isn't the land or the raw materials that are used and turned into goods and services it is neither the people with knowledge or education that help produce things. It is that created by economic production. It includes infrastructure, such as roads, irrigation works, electricity supply and also

producer goods such as machinery. Owning different types of assets is another significant indicator to measure the strength of Physical Capital. The socio- economic condition of the hill dwelling tribes are measured by the quantity of assets they own. The assets own by the Karbis and the Kukis are also considered as something valuable that an entity owns, benefits from, or has use of, in generating income.

In this paper, household assets are taken into consideration in identifying the physical assets of the households. To understand the condition of physical characteristics of the household of the Karbis and the Kukis, various indicators are taken like house types, types of roofs, types of floors, types of dwelling, habitable rooms, type of ownership of house, electricity, water supply, household assets owned, livestock owned and agricultural implements owned.

The hill zone of Assam is composed of two hill districts namely – Karbi Anglong and North Cachar Hills (now Dima Hasao). The zone is characterized by undulating topography where Karbi Anglong is dominantly having low hills with gentle slopes. The region is home to simple, sweet natured people belonging mostly Karbi and Dimasa tribe. Besides Karbis, Lalungs (Tiwa), Dimasa Kacharis, Bodos, Rengma Nagas, Kukis, Garos, Khasis, Tea tribes, Shyams, Hmars and Mizos etc. occupy various pockets of the district and maintain their own ethnic identity. Agriculture, specifically Jhum cultivation, still remains the predominant economic activity.

1.2 OBJECTIVE

To assess the importance of Physical assets in a traditional livelihood system of the Karbis and the Kukis in Karbi Anglong district, Assam.

1.3 STUDY AREA

This paper offers to assess the role of Physical Capital in the Livelihood System of Karbi and Kuki tribes residing in the same ecological zone in Karbi Anglong district. The study is confined in Lumbajong Block which is situated in the east division of the district, which includes Diphu, headquarter of the district and Singhason Hill Range, the highest point of Karbi Anglong Plateau. It also comes under Singhason Constituency of the Autonomous District Council, Karbi Anglong. Under this block, the Singhason Hill area that comprises villages belonging to diverse ethnic groups like the Karbi, Kuki, Dimasa, Garo and Nepali. These groups have settled in this area since time immemorial.

Karbi Anglong is situated in the central part of Assam situated between 25⁰32'N to 26⁰36'N latitudes and 92⁰10'E to 93⁰50'E longitude. It is bounded on the north by Nagaon and Golaghat districts, on the south by the North Cachar Hills district, on the east by Golaghat district and Nagaland and on the west by Meghalaya. The total geographical area of Karbi Anglong is 10,434 sq. km, accounting 13.3% of the total geographical area of the Assam. The district happens to be the largest district in the state. The total population of the Karbi Anglong district is 9,65, 280 (2011) and is dominated by Karbi tribe. Population density of the district is 64 nos. per sq.km and the literacy rate is 73.52 where the literacy rate of the male population (82.12) is much

higher than that of the female population (64.62). The district is mainly underdeveloped and backward as 88.18 percent of the total populations are still living in the rural areas against 11.82 percent of the population in urban areas.

1.4 METHODOLOGY

The study for the present paper consists of both qualitative and quantitative data collected through primary and secondary sources. Primary data is collected through field investigation in selected sample villages of both the tribes representing the different concentration zones practicing Jhum Cultivation for their livelihood. Data collection is based on stratified random sampling technique where two sets of household- one from the Karbis and another from the Kukis living in similar ecological setup are surveyed. Qualitative data on Physical Capital and livelihood System is collected with the help of focused group discussion with the village elders and concerned officials.

The data collected is analyzed by using simple statistical techniques. The data provided by the schedules is classified and tabulation is done after.

1.5 RESULTS AND DISCUSSION

The significance of physical assets in a traditional livelihood system among the Karbis and the Kukis in the district are assessed in terms of house types, types of roofs, types of floors, energy source used for cooking and lighting, water supply, household assets owned, livestock owns and agricultural implements owns.

1.5.1 HOUSING

Housing is considered as an important indicator in defining the economic status of the household. The type of house and building materials used to construct a house in any community indicate the socio-economic condition of the people inhabiting such homes beside their culture and physical environment.

Table 1: House Type

House Type	Tribe			
	Karbi		Kuki	
	No. of HH	Percent	No. of HH	Percent
Assam Type (kutchra)	126	78.75	6	3.75
Assam Type (pucca)	16	10.00	0	0.00
Traditional House (thatch roof)	2	1.25	61	38.13
Traditional House (tin roof)	16	10.00	93	58.13
RCC	0	0.00	0	0.00
Total	160	100	160	100

Source: Field Survey, 2016

Table 1 suggests that there are variations in the types of houses among the two tribes. 78.75 percent of Karbi tribe have Assam type (kutchha) whereas only 3.75 percent of Kuki tribe have Assam type (kutchha). Assam type (pucca) houses are found only among the Karbi tribe having a share of 10 percent. While 38.13 percent households of Kuki tribe traditional house (thatch roof) while a negligible of 2 percent of the Karbi have the same type of house. Majority of the Kuki tribe have houses with traditional house (tin roof), which is as high as 58.13 percent while only 10 percent households of the Karbi tribe possess this type of houses. The RCC types of house are not found among the tribes.

1.5.2 ROOF TYPE

Roof type is one of the most important indicators for household characteristics, which varies from one village to another and the resource available in that particular region.

Table 2: Roof Type

Type of Roof	Tribe			
	Karbi		Kuki	
	No. of HH	Percent	No. of HH	Percent
Thatched	18	11.25	73	45.63
Tin	139	86.88	87	54.38
Metal sheet	3	1.88	0	0.00
RCC	0	0.00	0	0.00
Total	160	100	160	100

Source: Field Survey, 2016

The analysis of roof type in table 2 shows the variations from the two selected ethnic tribes, where; thatch roof and tin roof are the most prevalent one where the former indicates the lower economic status while the later reveals better economic condition. The Karbi tribe has the largest proportion of tin roofs with 86.88 percent and Kuki with 54.38 percent. While the Kuki tribe has 45.63 percent of thatched roof while the Karbi with 11.25 percent. Metal sheet is also used for roof with a meagre of 1.88 percent by the Karbis while the Kukis do not practice this type of material for their roof. The RCC types of houses are not found among the tribes, which reflect their low economic condition and indirectly define their low source of income.

1.5.3 FLOOR TYPE

Floor type is considered as another indicator for household characteristics, which varies from one village to another and the resource available in that particular region. Wood and mud are widely used as floor in house where wood and cement are not available. And in the absence it is replaced with some other resource available like bamboo, wood etc

Table 3: Floor Type

Type of Floor	Tribe			
	Karbi		Kuki	
	No. of HH	Percent	No. of HH	Percent
Kuccha	40	25.00	5	3.13
Mud	103	64.38	42	26.25
wooden	3	1.88	113	70.63

Cemented	14	8.75	0	0.00
Total	160	100	160	100

Source: Field Survey, 2016

Table 3 shows that, the Karbi tribe has the largest proportion of mud floor with 64.38 percent and Kuki with 26.25 percent. While the Kuki tribe has 70.63 percent wooden floors, while the Karbi with only 1.88 percent. Cemented floor is with 8.75 percent by the Karbis while the Kukis do not have cemented floor. The kuccha type of floors is also found where 25 percent of the Karbi and 3.13 percent of the Kuki households respectively.

1.5.4 BASIC AMENITIES:

Basic amenities play an important role for the better living condition of the rural people living in the hills. Electricity, water supply, medical health centre, primary schools etc. are the main requirement for the social development and social wellbeing that provides comfort, convenience, or pleasure. Assessing the availability of basic amenities from the selected sample villages helps in understanding not only the living conditions, but also the economic condition of the village and explains the disparities between the two selected tribes. For the present study, the selected indicators to measure the basic amenities are sources of energy for cooking, lighting and water supply.

1.5.4.1 ENERGY SOURCE USED FOR COOKING

In rural areas where the standard of living is still very low, use of energy sources like LPG and electricity is not easily available. So alternative sources like firewood, charcoal, and kerosene as a source of energy are used for cooking by the rural people. Being away from the urban areas majority of the Karbis and the Kukis depend mainly on firewood, which they collect from the nearby jungle for their daily use.

Table 4: Energy source used for cooking by the Karbis

Sources of Energy	No.of HH with energy sources	No.of HH without energy sources	Total	Percent of HH with energy sources	Percent of HH without energy sources	Total Percent
Firewood	156	4	160	97.5	2.5	100
Charcoal	2	158	160	1.25	98.75	100
Kerosene	2	158	160	1.25	98.75	100
Electricity	4	156	160	2.5	97.5	100
LPG	3	157	160	1.875	98.125	100
Others	2	158	160	1.25	98.75	100

Source: Field Survey, 2016

Table 5: Energy source used for cooking by the Kukis

Sources of Energy	No.of HH with energy sources	No.of HH without energy sources	Total	Percent of HH with energy sources	Percent of HH without energy sources	Total Percent
Firewood	160	0	160	100	0	100
Charcoal	0	160	160	0	100	100
Kerosene	0	160	160	0	100	100
Electricity	0	160	160	0	100	100
LPG	0	160	160	0	100	100
Others	0	160	160	0	100	100

Source: Field Survey, 2016

Table 4 and 5 highlights the sources of energy used for cooking between the two tribes. The table clearly shows that, in most of the cases firewood is found to be the most dominant source of energy used for cooking by both the tribes. About 97.5 percent of the Karbi and 100 percent of the Kuki still use firewood as the main source of cooking which indicates that both the tribes still living in a very low economic condition as they still collect firewood from the forest. While 1.25 percent, 1.25 percent, 2.5 percent, 1.875 and 1.25 percent households of the Karbi tribe use charcoal, kerosene, electricity and LPG for their daily use for cooking respectively. Whereas, 2.5 percent, 98.75 percent, 98.75 percent, 97.5 percent, 98.125 percent and 98.75 percent of the Karbi household are without energy sources of cooking like firewood, charcoal, kerosene, electricity and LPG respectively. While the Kukis are still fully dependent on firewood for their daily cooking which shows lack of basic amenities in the Kuki inhabited areas.

1.5.4.2 ENERGY SOURCE USED FOR LIGHTING

Many of the of Karbi and especially the Kuki households in the selected sample villages do not use electricity as primary source of energy for lighting. Alternative sources like kerosene and solar power are mostly use in the hilly areas where the power connection could not reach.

Table 6: Energy source used for lighting by the Karbis

Energy Sources used for lighting	No.of HH with energy sources	No.of HH without energy sources	Total	Percent of HH with energy sources	Percent of HH without energy sources	Total Percent
Electricity	134	26.00	160	83.75	16.25	100
Kerosene	150	10.00	160	93.75	6.25	100
Solar power	19	141.00	160	11.88	88.12	100
Others	0	160	160	0	100	100

Source: Field Survey, 2016

Table 7: Energy source used for lighting by the Kukis

Energy sources used for lighting	No. of HH with energy sources	No. of HH without energy sources	Total	Percent of HH with energy sources	Percent of HH without energy sources	Total Percent
Electricity	0	160	160	0.00	100.00	100
Kerosene	114	46	160	71.25	28.75	100
Solar power	159	1	160	99.38	0.63	100
Others	0	160	160	0.00	100	100

Source: Field Survey, 2016

Table 6 and 7 clearly shows the energy source use for lighting for both the tribes. Lighting is considered as one of the most vital component of physical capital in today's world. A mere supply of power transmission network found in all the sample habitations is not adequate enough as people require this facility on daily basis as a genuine demand by the rural communities. It is evident from the two tables (table 6 and 7) that about 83.75 percent of the Karbi have electricity for lighting purpose while 16.25 percent are without electricity for lighting purpose and that none of the Kuki households are accessible to electricity. While the Karbis reported that despite most houses have wired connectivity the village remains without supply for most part of the year, thereby creating lots of difficulties. The higher supply of electricity among the Karbis compared to that of the Kukis may be stated because of the location of the Karbi villages that are much closer to the district headquarter where the availability of basic amenities is much easier than the Kuki inhabited area that are far from the district headquarter mainly in the remote and hilly region where sufficient supply of basic amenities is not an easy task. A very high percentage of about 93.75 percent of the Karbis are using kerosene while 6.25 percent are without kerosene for lighting purpose. While 71.25 percent of the Karbis are using kerosene and 28.75percent are without kerosene for lighting purposes. About 11. 88 percent of the Karbis and 88.12 percent of the Karbi tribe are using solar power for their lighting purpose. The high usage of solar power is much higher among the Kukis because of their remote location far away from the urban areas where the supply of lighting is not available unlike the Karbi inhabited areas, in that condition, use of solar power is the best alternative for the Kuki tribe to generate power from the solar energy and provide themselves with the necessary energy sources of lighting.

On enquiry, it is found that, proper supply of electricity was carried out well in some Kuki villages through diesel run generator, which generates power to households every evening from 6pm to 10pm. This was also done through mass contribution of funds and participation of the villages. From these, it is evident that Kuki villages were far more advanced, more co- operative and economically better off than the Karbi who lived under little basic amenities due to poor economic conditions

1.5.4.3 WATER SUPPLY

The availability of basic amenities like water supply plays a significant role in the all-round socio-economic development of the people. Some Karbi and Kuki villages had these basic amenities and served the welfare of the villagers. There is an availability of water supply through proper pipeline connection and electrification to all the households. Availability of potable water is one of the most necessary physical assets.

An attempt was made to understand the prevailing situation with regard to source and availability of source of water supply in the selected sample villages among the two tribes.

Table 8: Water Supply by the Karbis

Sources of water supply	No. of HH with water supply	No. of HH without water supply	Total	Percent of HH with water supply	Percent of HH without water Supply	Total Percent
Piped Water	155	5	160	96.88	3.12	100
Dug Well	36	124	160	22.50	77.50	100
Bore Well	141	19	160	88.12	11.88	100
Tanker	1	159	160	0.62	99.38	100
Community Water Pumps	0	160	160	0.00	100.00	100
Municipal Wells	0	160	160	0.00	100.00	100
Stand Posts	0	160	160	0.00	100.00	100
Others(rivers)	5	155	160	3.13	96.88	100

Source: Field Survey, 2016

Table 9: Water Supply by the Kukis

Sources of water Supply	No. of HH with water supply	No. of HH without water supply	Total	Percent of HH with water supply	Percent of HH without water supply	Total Percent
Piped Water	160	0	160	100	0	100
Dug Well	0	160	160	0	100	100
Bore Well	0	160	160	0	100	100
Tanker	0	160	160	0	100	100
Community Water	0	160	160	0	100	100
Municipal Wells	0	160	160	0	100	100
Stand Posts	0	160	160	0	100	100
Others	0	160	160	0	100	100

Source: Field Survey, 2016

Table 8 and 9 indicate that piped water supply is mainly available among both the tribes. About 96.88 percent of the Karbi and 100 percent of the Kuki villages depend solely on piped water supply and 3.12 percent of the Karbi do not avail the facility of piped water supply. While 22.50 percent Karbi depend on and 77.50 percent do not depend on dug well for their daily supply of water. 88.12 percent Karbi depend on and 11.88 percent do not depend on bore well for their daily supply of water. Whereas, 0.62 percent Karbi depend on and 99.38 percent do not depend on bore well for their daily supply of water.

In some of the remote sample Kuki villages, it was found availability of water supply through proper pipeline connection and electrification to all the households on enquiry it was found that, these basic amenities were not from the government, but through a social welfare programme initiated within the village

itself. Pipelines were connected to spring from the hills to the village; tanks were constructed to store the water through the help rendered by the social welfare programme.

1.6 CONCLUSION

Physical capital helps to provide the adequate basic infrastructure to provide better livelihood and to make more productive in order to achieve a better socio- economic development. It is essential especially in the rural areas as without proper infrastructure like roads, post offices, health facilities etc. livelihood is largely effected to a great extent especially on the life of the rural poor like the Karbis and the Kukis. Over all when compared it is found that both the Karbis and the Kukis have some similarity in possessing the physical assets in terms of quality and quantity. It is also observed that the Karbi inhabited areas are closer to the district headquarter so the availability of energy sources from the government is better than the Kuki inhabited areas. But the Kuki tribe due to their industrious nature found an alternative source for their daily consumption. It is also observed that improvement on housing condition, agriculture, livestock, household goods own can be made to empower the better livelihood of the rural people like that of the Karbis and the Kukis. It is important that more emphasis should be given to enhance this asset through the needs of both the Karbis and the Kukis and their facilities be improved through their involvement. The development programme, village committee, Self Help Groups should contribute towards the improvement of the village infrastructure facilities and income generation activities. The government should also provide sufficient funds to village authorities for the provisions of water, basic health care facilities, schools, roads etc. Therefore, physical capital is essential as without adequate access to proper infrastructure like roads, post offices, health facilities etc., livelihood is effected and this has a detrimental effect on the lives and livelihood of the Karbis and the Kukis residing in the rural areas.

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