AVAILABILITY AND ACCESS TO CAPITALS OF RURAL HOUSEHOLD IN NORTHERN PAKISTAN

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ABSTRACT

Household engage in various activities for livelihood by using different capitals. These include natural, physical, social, financial and human capitals. Access to different levels and combination of asset has major influence on choice of livelihood options and wellbeing of household. The aim of the present research was to study the possession and access to livelihood capitals of rural household in Northern Pakistan. For this purpose data were collected from 323 household from one of the districts in Northern Pakistan. Chi-square test was applied to examine the significance of these capitals at 50: 50 percent. The findings of the research show that natural capitals in these areas are; land, livestock, irrigation water, and forests are contributing significantly towards livelihood. Physical capitals i.e. possession of home, access to potable water, electricity and agriculture machinery are important indicators for socio-economic status of a household. Literacy rate was found very high compared to other rural areas of similar characteristics. The contribution of capacity to work, skill possession, and vocational training and extension services having significant contribution to human capital. The decision power at community level, working relation with each others, and farmer organization play significant role in contributing to social capital. Similarly financial capital including saving, remittance, monthly pension, income from livestock and access to agriculture credit is contributing significantly. The study concludes that the natural, physical, human, social and financial capitals play a vital role in the livelihood of the rural household. But access to these capitals is skewed which adversely affected the development of these areas. There is a need to address the issue of skewed access to these assets of all the rural households so that they may be equally benefited from these assets.

Key Words: Access to Capitals, Rural areas, Livelihood sources, Northern Pakistan

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INTRODUCTION

The rural people get involved in various economic activities for their livelihood needs depending on their possession and accessibility to productive capitals (DFID, 2000). Livelihood is broader than income; it includes everything necessary for living. It is composed of activities that generate the means of household survival and are the planned activities that men and women undertake to build their livelihoods. Household engage in various activities for livelihood by using five capitals assets (DFID, 2000, Ellis, 2000 and Scoones, 1998). These include Natural, Physical, Social, Financial and Human capitals. Access to different levels and combination of assets has major influence on choice of livelihood options and wellbeing of household (Chambers and Conway, 1991, Scoones, 1998).

All these capitals have equal importance in the life of rural households. Accessibility to natural resources such as land, production from land, forests, water (both drinking and irrigation water) and pastures, etc. is vital for survival and well being of rural household. No or limited access of rural people to these resources make it difficult for them to get the required income and accumulate assets (Hanstad et al. 2004). To be poor is to have no land or less access to land Narayan (2000). Human assets are essentially a type of asset in which capital is embodied in people. Human capital is about knowledge and skills. Human capital highlights the importance of labor, health, education, capacity to work and skills as assets to achieving livelihood (Ellis, 2000). Among these labor is most important asset but alone labour is not sufficient for livelihoods of the household, but when enhanced through education, training, and other skills, it becomes extremely an effective tool for poor households to gain their livelihoods. (Narayan, 2000, Grinspun, 2001 and Ellis, 2000). Knowledge, good health, skills and motivation enhances labour efficiency. But there are large gaps in access to such assets between the rich and poor, rural and urban populations and, quite often, men and women. Within education the differences between male and female educational access and literacy levels exists (IFAD 2001).
Social capital is about solidarity and community action. Social capital more specifically emphasizes on family networks, kinship, and close friends that help the household during the time of crises. This relationship can be seen as an investment for future livelihoods. This relationship is based on trust and reciprocity.

Physical capital plays an important role in the development of rural economy. This capital include infrastructure. It consists of access to roads, markets, transportation, clinics, schools, technical colleges, universities and many others. There are divergence views about the importance of physical assets. Some give importance communication systems while others to transport, and educational institutions. Ellis (2000) gives much importance to roads; electricity, and water supply. Roads shorten distances and enable market access to poor households. Electricity also plays an important role in the development of rural areas, for its presence determines locations of manufacturing industries that may provide employment and income to the poor. Also avoidance of illness and disease in rural areas can be achieved through provision of clean drinking water.

Financial assets are the most versatile type of asset since they are readily convertible into any form of capital. It constitutes saving, agriculture loan/credit, both foreign and domestic remittances. Many poor households have inadequate financial capital. Livelihood strategies and income generating activates at the household level depend to a large degree on the quantity and qualities of these assets owned by the household. Resting on the above logics the study in hand was design with the following objectives.

**Objectives of the Study**

i. To investigate different livelihood sources available in rural areas in Northern Pakistan.

ii. To study the access of rural households to different livelihood assets in the study area.

iii. To suggest policy recommendations on the basis of study findings.

**MATERIALS AND METHODS**

Universe of the study was confined to District Shangla of North West Frontier province of Pakistan. There are 28 Union councils in the study district. Keeping in view the available resources four union councils namely; Lilownai, Kuzkana, Shahpur and Pirkhana were selected for detailed investigation. There were a total of 9,999 households in these four union councils (3280 in Lilownai, 1392 in Kuzkana, 2500 in Shahpur and 2827 in Pirkhana) in these union councils. The formula forwarded by Cochran (1963) was applied to the population for determination of sample size selection.

\[
 n_o = \frac{Z^2 \cdot p \cdot q}{e^2}
\]

Where

- \( n_o \) = Sample size
- \( Z \) = Distance between the normal curves that cuts off an area at the tail. Its Value is constant, and different for different percentages.
- \( p \) = Variability
- \( q \) = Precision
- \( e \) = Error

Due to heterogeneity in the socio economic characteristics of the sample households in the study area the level of variability and precision were taken. Taking the constant value of \( Z \) at 5% i.e. 1.96, variability \( p \) (0.7), precision \( q \) (0.3) and error \( e \) 0.05, the resulted sample size was found as 323 households. The sample size was proportionately distributed among the four selected union councils. Thus 106, 45, 81and 91 households were interviewed through a pre-tested structured interview schedule from union council Lilownai, Kuz kana, Shahpur and Pirkhana respectively. Data were collected through random sampling method from the household in the four selected union councils. Every effort was made to interview a responsible member of the households. On this approach mainly the heads of the households were selected for interviews. Questionnaire was used as a research instruments for the collection of the required information. The collected data were tabulated and analyzed for descriptive statistics in Microsoft Exile 2007. It was hypothesized that fifty percent of the households possessed different types of capitals and the remaining fifty percent do not have. To check the significance of the possession of capitals chi-square was calculated with the help of the following formula.
RESULTS AND DISCUSSION

Detailed investigation regarding the possession and availability of different capital in the survey district is presented in this section. As already mentioned these capital include: Natural, Physical, Social, Financial and Human capitals. In present study human physical capital was measured in term of household having the availability of electricity, and tractor, own home, potable water supply and agricultural technology. Among the physical assets, electricity and water supply schemes are taken into account. Similarly the key indicators/measure for human capital are education, capacity to work, possess skills, vocational training and access to extension services. Social capital are measured in terms of having group membership, decision power at community level, work relation with each others, having labour network and having farmer organization. Financial capital is measured in term of having saving, remittances (both domestic and foreign), wages, pension, livestock and agriculture loan/credit. Which follows next is discussion on natural capital.

Possession of Natural Capital

Land is among one of the productive natural assets and sign of wealth of people which enable them to live in peace and honour in the rural space. The livelihood of many rural people depends on this asset. Efficient and wise use of land is the predetermined for the development and prosperity of the nation. It has greater significance in livelihoods especially of backward and poor agriculture based communities. Those possess land having better livelihood opportunity and wellbeing. There is a voluminous literature that supports this viewpoint. Land is considered as one of the important natural assets and its productivity increases the portfolio of livelihood strategy. Access to productive land enables the household for having better opportunity to increase the agriculture production and hence wellbeing (Nayaran 2000, Sharma 1985, and DFID, 2001).

The data in this respect is presented in Table-I. The findings show that 64.09% of the respondents possessed land, while 35.91% were landless. Majority of the respondents (53.83%) reported land as main source of livelihood and they get agricultural production from land, while the rest of 46.13% stated that had land but of no use. However it is important to mention here that these lands are a good source of grazing for livestock of the different households.

Irrigation water is important for increasing land productivity and livelihood activities. The importance of irrigation water can be judged from the fact that it is the basic source for many livelihood activities in rural areas (Hussain, 2007 and Merrey et al, 2005). Similarly Gottret and White (2001) states that Irrigation water is one of the important natural capital assets and having a great potential to increase the livelihood of the rural household. The possession/access to irrigation water helps in multi-cropping and hence diversifies household income. The area under study is mountainous in nature and mainly depends on rain. However there is some land where the spring water can be used for irrigation purposes. This was reported by 18.58 % of the respondents. This feature of less access to irrigation water contributes to low productivity of land and hence low income of the farmers in the study area.

Forest is also one of the natural assets and important livelihood sources for many rural people. Non-timber forest products such as fuel wood, grass, fodder, and medicinal plants are also play important role in the livelihood and well being of the rural population. In the study area it was reported by 31.58% of the sample respondent’s possession of forest capital while majority (68.42%) answered for having no forest. It was observed during the study that the ownership of land was restricted to some land lord, and they were controlling all the property rights of forest land.

\[ \chi^2 = \sum \frac{(fo - fe)^2}{fe} \]

Where:
- \( \chi^2 \) = Chi-square
- \( fo \) = Frequency observed
- \( fe \) = Frequency expected
Possession of Physical Capital

Physical capital was measured in term of household having own home, potable water supply, agricultural technology the availability of electricity, and tractor. According to Ellis (2000) among physical assets, electricity, and water supply are the most important. Shelter is the basic rights of each and every individual. The data show that 76.47% respondents having own home. While 23.53% answered for not having own home. Those having no home majority were tenants and living in land lord’s constructed houses on the land.

Merrey et al. (2005) pointed out that household with lack or a low level of access to reliable water for household consumption is one central feature of poverty. The data in Table I show that 61.61% of the household reported for having potable water at home, while 38.39% respondents were deprived of this facility. It was observed during the survey that mainly the land owners were having this facility because of political affiliation with one or other parties. Availability of electricity also play important role in the livelihood development and also one of the important measure of physical capital. The findings show that 74.92% respondents reported for the availability of electricity. The rest of the respondents were having no access to electricity. Modern agriculture technology guarantees a major element of income from small-scale agricultural (IFAD, 2003). The data show that only 17.65% of the respondents reported using of modern agriculture technology, while the rest 82.35% do not use modern technology due one or the other reason. Possession of farm machinery was reported by 14.24% respondents.

Possession of Human Capital

Key indicators for human capital are education, capacity to work, possess skills, vocational training and access to extension services. The findings show a discouraging situation regarding the said capital. The data show that 52.94 percent of the household head were literate and having education of different level. The remaining 47.06 percent households were illiterate. Present finding was confirmed by the Khan (2008) who pointed that in rural Pakistan 61 percent of the household head having no education while only 39 percent having education.

Capacity to work is also one of the important measures of human capital. Capacity to work means that the household head are physically sound and having the capabilities to perform the day to day activities for earning their livelihood. The data in the table show that 100% of the household head having the capacity of work. Skill possession is the important component of human capital. Skill improved the overall household wellbeing and the skillful individuals having more and diverse opportunities for livelihood earning. The data show that 55.11% respondents reported for having skill of different kinds, while 44.89% answered for having no skill. To achieve higher levels of productivity, competitiveness and quality vocational training is important (ILO, 2001). The data show that 12.38% respondents having vocational training.

Extension services availability is a vital measure for human capital measurement. The availability of extension services increases the productivity from land and livestock. Extension services are important for building the farmer capacity to increase their productivity. The data show that majority (80.19%) the respondents answered for non availability of extension services, while only 19.81% reported for having the extension facilities. Results of the chi-square at 50:50 percent suggest that vocational training and extension services have significantly less household. While having education and skill by the sample household is not significant at the chi-square ratio.

Possession of Social Capital

Social capital is an input of a household’s which has major implications for development of the society and overall livelihood development. The social capital are mainly measured in terms of having group membership, decision power at community level, work relation with each others, having labor network and having farmer organization. A number of organizations work in different sectors of the rural economy. They have formed village organization so that to involve the rural people in the development of the rural areas. The data show that 47.68% respondents answered for having group membership, while 52.32% responds for no group membership. Similarly decision power is also important at community level. This enables the individual to implement the right decision on right time. The findings show that 65.63% respondents having no power of decision at community level. While a small percentage 34.37 having power of decision at community level.

The people keep friendly relations with each other and help each other in their economic and social activities. In this regards the figures show that all the respondents reported for having working relation with each others. Mostly these relations are on reciprocal bases.
Labour organization is important for securing the rights of labor. Though the rural people cooperate with each other in different farm activities during different cropping seasons but no such organization exist in the research area. This cooperation is mainly on reciprocal bases and contributing significantly towards social capital. No decision power at community level has significantly more household at 50:50 percent, while the group membership is not significant at aforementioned ratio.

**Possession of Financial Capital**

In financial capital savings, remittance and having access to credit are very important (Ansoms, 2008). Financial capital is measured in term of having saving, remittances (both domestic and foreign), wages, pension, livestock and agriculture loan/credit. The tabulated data depicted that 60.06% household heads reported for having saving. The data in Table I also shows that 57.89% respondents having remittance (both foreign and domestic). It was mentioned by 44.58% respondents for having wages, while 55.58% answered negatively. The class of households having remittance and the class of households having no remittances are not significantly different as tested by 1:1 ratio of the chi-square test.

Pension is also the important financial assets of old people. The data shows that only 3.72% answered for having the pension. Livestock is easily convertible financial assets. It was mentioned by 73.07% of the respondents. Access to agriculture loan/credit are also one of the important financial capitals. It was mentioned by 70.59% of the household heads for having no Agriculture loan/credit to them. Then results of chi-square at 50:50 pointed that the reporting of saving, remittance and livestock has significantly more household, while the pension and agriculture having less reported household at the fixed ratio of 50:50 percent. The households productive assets are presented in Table I. The scale shows the level of the particular capital possession by the sample household in the area.

### Table I: Information of Rural Household asset possession and access in the area

<table>
<thead>
<tr>
<th>Capital</th>
<th>Key Indicators</th>
<th>Number and percent of respondents (n=323)</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Capital</td>
<td>Land</td>
<td>Yes (64.09): 207; No (35.91): 116</td>
<td>25.64***</td>
</tr>
<tr>
<td></td>
<td>Irrigation water</td>
<td>Yes (18.58): 60; No (81.42): 263</td>
<td>127.58***</td>
</tr>
<tr>
<td></td>
<td>Forest</td>
<td>Yes (31.58): 102; No (68.42): 221</td>
<td>43.84***</td>
</tr>
<tr>
<td></td>
<td>Production from land</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Irrigation Water</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td>Physical Capital</td>
<td>Tractor</td>
<td>Yes (18.58): 46; No (85.76): 277</td>
<td>165.20***</td>
</tr>
<tr>
<td></td>
<td>Own Home</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Tractor</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Potable water</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Agriculture Technology</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td>Human Capital</td>
<td>Education</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Capacity to work</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Possess Skill</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Vocational Training</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td></td>
<td>Extension Services</td>
<td>Yes (53.87): 174; No (46.13): 149</td>
<td>1.93#</td>
</tr>
<tr>
<td>Social Capital</td>
<td>Having Group membership</td>
<td>Yes (47.68): 154; No (52.32): 169</td>
<td>0.70#</td>
</tr>
<tr>
<td></td>
<td>Decision Power at community level</td>
<td>Yes (47.68): 154; No (52.32): 169</td>
<td>0.70#</td>
</tr>
<tr>
<td></td>
<td>Work relation with each others</td>
<td>Yes (47.68): 154; No (52.32): 169</td>
<td>0.70#</td>
</tr>
<tr>
<td></td>
<td>Labor network in the area</td>
<td>Yes (47.68): 154; No (52.32): 169</td>
<td>0.70#</td>
</tr>
<tr>
<td></td>
<td>Farmer Organization</td>
<td>Yes (47.68): 154; No (52.32): 169</td>
<td>0.70#</td>
</tr>
<tr>
<td></td>
<td>Saving</td>
<td>Yes (60.06): 194; No (39.94): 129</td>
<td>13.08***</td>
</tr>
<tr>
<td>Financial Capital</td>
<td>Remittance</td>
<td>Yes (57.89): 187; No (42.11): 136</td>
<td>8.05***</td>
</tr>
<tr>
<td></td>
<td>Wages</td>
<td>Yes (44.58): 144; No (55.42): 179</td>
<td>3.79#</td>
</tr>
<tr>
<td></td>
<td>Pension</td>
<td>Yes (3.72): 12; No (96.28): 311</td>
<td>276.78***</td>
</tr>
<tr>
<td></td>
<td>Agric. Loan/credit</td>
<td>Yes (29.41): 95; No (70.59): 288</td>
<td>12.64***</td>
</tr>
</tbody>
</table>


Note: Figures in parenthesis are percentages

*** Significant at 50:50 percent
Fig. 1: Household’s capitals in the area.

(The scale shows the number of households having the indicated assets)
CONCLUSION AND RECOMMENDATIONS

Summarizing the whole discussion it is concluded that different capitals including; natural, physical, human, social and financial are existed in the district Shangla of Northern Pakistan. The possession of these capitals play significant role in the economic and political status of the household. To study the importance of these capitals in rural setting chi-square test technique was applied to the collected data that confirmed the findings of different research conducted in different parts of the world. However it is to be noted that access to these capital is not uniform. In majority of the cases the distribution of different capitals were found unequal among the rural masses in general and the sample respondent in particular. In case of possession of natural capital; including land, agricultural production, irrigation water and forests, only a small percentage of respondents had these assets. Similar was the case of physical capitals. Among the human capital the education contribution was not significant while the capacity to work and skill was significant. In majority of the cases accessibility of household to social and financial capitals is was also not found in these areas. Lack of accessibility to these assets seems to be adversely affecting livelihood of masses in these areas. What to do in such a situation. In this regards the following recommendations are forwarded.

i. While launching development schemes in rural areas equal representation should be ensured of different ethnic groups residing in these areas so that interest of the whole community is safeguarded.
ii. Access to different capitals may be ensured so that maximum rural households may be benefited from the available assets.
iii. The enhancement of human capital is important for bringing these areas at par of the developed parts of the country. For this purpose educational institutions of high standard be promoted.
iv. For the development of social capital it is important to encourage forming different organization at village level so that these people can play their role in the developmental activities in the areas.
v. Access to financial capital is considered important for utilizing the available household assets. Special attention is required to address this issue.

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