

# **Analysis of Influence of Livelihood Capabilities on Coffee Production Among Small-Scale Coffee Farmers in Hai and Arumeru Districts, Tanzania**

**By**

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## **Abstract**

The focus of this study was to analyse the influence of livelihood capabilities on coffee production among small -scale coffee farmers in Hai and Arumeru District. This based on the fact that coffee is the second agriculture export in Tanzania after tobacco and it provides direct income to more than 400 000 households which support the livelihood of some 2.5 million individuals and generate between USD 150 and 225 million per year of foreign exchange earnings. Coffee is one of the top commodities world-wide and the third most consumed beverage in the world after water and tea. It is the second most traded commodity after oil with about half a trillion cups consumed annually. In Tanzania, coffee is the second top ranked agricultural export product after tobacco providing direct income to more than 400 000 households which support the livelihood of some 2.5 million individuals and generate between USD 150 and 225 million per year of foreign exchange earnings.

The specific objectives of this study were; -

- Examine the implication of livelihood capabilities on coffee production trends among small-scale coffee farmers
- Investigate the implications of livelihood capabilities on coffee farming input accessibility, availability and affordability among small-scale farmers.
- Examine the association between livelihood capabilities and access to extension services among small- scale famers
- Determine the livelihood capability diversification strategies among small-scale coffee farmers.

This study was guided by the following theories;

The main theory that guided this study was Farm Household production theory, it was considered to be the main theory because the study is about the production among small holders which is the central focus in Farm House hold Production Theory. The rest of the theory that has been listed below were used to supplement the main theory. Other theory used in this study demanded each specific objective as to complete the study. Farm Production Theory and other theories and their application in this study are explained in details; -

Farm household Production theory

- This was considered to the main the study focused on production among small holders' farmers which is centra focus in farm household's production which considered small coffee growers in Hai and Arumeru District Districts. The theory provides insights into the way peasants households manage the trade-off between income risk and expected return from production process.

Sustainable livelihood Approach

- Sustainable approach analyses factors that affect people livelihood, it helps to understand the complexity of poverty and mainstreaming the rural poor at the centre of the web of inter related influence that affect how those people create and improve their livelihood. The theory was adopted in the study because it creates understanding on the strategies that small-scale farmers have adopted as well as the linkage with poverty reduction program. Sustainable livelihood approach has the opportunity of identifying constrains and opportunities for development among small-coffee growers and it can further be extended to capture cross sectoral nature of small-scale farmers and relation among people in the community.

#### Diffusion of innovation Theory

- This theory seeks to explain how, why, and what rate new idea and technology spread among people or group of people. Therefore, this theory in order to examine the diffusion of new skills and knowledge brought by agriculture extension officer to the small coffee-farmers so that they can improve the production of coffee in their areas. In due respect the diffusion approach in agriculture development can be attained through more effective disseminations of technical knowledge among small farmers.

#### High pay -off Theory

- This theory explains the implication of livelihood capabilities on coffee farming input among small scale famers. The theory focuses on how to create and provide farmers with high pay off technology in relation with capital equipment's and other inputs as well as to increase labour productivity among farmers.

The study adopted a cross -section research design through the use of mixed method approach which used both qualitative and quantitative. The reason behind the selection of cross section design because it was easy for the researcher collect data on multiple variables from a representative sample with varied characteristics to be examined at a single point of time. The study a used a mixed approach which combined a utilization of both qualitative and quantitated data because it enabled the analysis and output of complement each other to reach the desired conclusion.

Data were collected from different groups of respondents at a time. The main method of data collection employed were; -

- Household survey, structured questionnaires were designed in order to collect information from small scale coffee farmers in Aumeru and Hai District,
- Focus group discussion (FGD) were conducted with small scale farmers one focused group discussion from each village and the number of participants ranged from 6-8 and were selected under the guidance of the village leaders. The groups provided vital information on coffee production trend, influence of livelihood, capability on coffee farming inputs, extension services and livelihood capability diversification capabilities strategies among small scall coffee farmers.
- Documentary review and
- Key informant interview.

The total of 250 respondents from 8 villages in Hai and Arumeru District were included in the study. Qualitative data were analysed using content analysis while quantitative data were statistically tested by sing chi- square and cross tabulation which indicted the relationship between livelihood capabilities and other related with coffee production such as farming inputs, extension services and diversification strategies among small -scale coffee farmers.

Data analysis was done by using Content analysis related with perception among small scale coffee farmers, coffee production increase, attitude, preferences. On the other side quantitative data were analysed statistically by using Chi-square and cross tabulation which indicated the association between livelihood capabilities and coffee farming in puts, livelihood capabilities and extension services and the obtained resulted were presented by using table and figures.

### **The study indicated the following findings; -**

Examine the implication of livelihood capabilities on coffee production trends among small-scale coffee farmers

- The results indicate that the small-scale coffee farmers were categorized into four capability levels; no capability (9.2%), low capability (39.2%), moderate capability (18.4%) and high capability (33.2%) respectively. Coffee production and income generated from coffee have been fluctuating from time to time and therefore affecting the livelihood of small-scale farmers.
- It was revealed that the critical problem facing small-scale coffee farmers was inputs un-affordability.
- The study further noted that not only coffee production which has been fluctuating within the same period of time price offered per50 k has been varying from time to time.
- Investigate the implications of livelihood capabilities on coffee farming input accessibility, availability and affordability among small-scale farmers.
- Examine the association between livelihood capabilities and access to extension services among small- scale famers
- In addition, there is lack of market and low coffee price, inadequate farming inputs and extension services which altogether have compelled small-scale coffee farmers to diversify their economic activities by engaging into livestock keeping, vegetable production, small business ventures, renting land for other economic activities and performing casual tasks in order to meet their daily livelihood requirements. But in the process of adopting livelihood diversification strategies several constraints revealed including among others lack of capital, inadequate knowledge and skills, individual's readiness, existing agricultural policy environment, prevailing socio-economic environment, soil infertility and pesticides un-affordability by the majority of small-scale coffee farmers.
- The researcher further discovered that because the study discovered that, extension services were not given to coffee farmers in Hai and Arumeru District therefore demonstration plot should be established in every Ward where small scale farmers should go and learn new farming skills and knowledge. In doing not only farmers will increase their skill and knowledge but also their livelihood will be improved

Determine the livelihood capability diversification strategies among small-scale coffee farmers.

- The findings regarding capability indicated that the total 56.3 % of the respondents in small businesses as a diversification strategy to coffee production were reported to attain high level of livelihood capabilities compared by the small coffee farmers who concentrated on coffee production only. Among the diversification activities that the researcher examined were animal keeping and vegetable production.
- Immediate application of the results

In terms of the immediate application of the findings, it has been revealed that sustainability of coffee production is in the hands of the young generation, but surprisingly the involvement of youth in coffee production in the study area and generally in the entire country at large is very limited. This implies that if culture and tradition of not involving youth in coffee production shall not change, then the sustainability of coffee production will be questionable simply because most of the farmers are very old and incapable to diversify or improve coffee production in this respect, and if coffee production is not improved, then the livelihood of small-scale coffee farmers will continue dwindling. Hence, there is a need to undertake deliberate initiative in this area in order to ensure the sustainability of coffee production and livelihood among small-scale coffee farmers.

Furthermore, results have shown that livelihood capability levels determine substantially the affordability of coffee farming inputs and amount of coffee to be produced by small-scale farmers in the study area. Low livelihood capability levels due to low production incapacitate small-scale coffee farmers to acquire different basic requirements such as medication, education, decent housing, business, means of transport and clothes. At the same time, selection of type, quality and quantity of coffee farming inputs is determined by livelihood capability levels among small-scale coffee farmers. Therefore, immediate attention is needed in raising the livelihood capabilities among small-scale farmers as well as mechanisms of ensuring quality and adequate farming inputs should be a pre-requisite. The results have shown that livelihood capabilities determine substantially the type and quality of extension services among small-scale coffee farmers.

Hence if small-scale farmers are enabled in terms of skills, knowledge and capital then there will be all likelihoods for improving not only coffee production but also their livelihood conditions. Furthermore, more emphasis can be put in livelihood capabilities diversification strategies among small-scale coffee farmers due to falling in income generated from coffee production in order to increase productivity and maximize profits. Among other economic activities performed by small-scale coffee farmers, coffee production still plays a fundamental role as a source of savings for other economic occupations aiming at improving livelihood capabilities through adopting different livelihood capabilities diversification strategies.

- The study gave out the following recommendations; -
- Based on the findings, it is recommended that small-scale coffee farmers through the assistance from extension officers and local authorities to form groups (co-operatives) in order to lay down strategies on how to improve coffee production, how to secure market and good prices for their crops.

- However, districts administrative authorities and coffee stakeholders should make collaborative efforts aiming at improving the quality and quantity of coffee produced. This can be done by ensuring the timely availability of coffee farming inputs and extension services among small-scale farmers. In so doing, this will improve not only coffee production but also the livelihood capabilities among small-scale farmers.
- Furthermore, based on the current coffee production situation in Tanzania, small-scale farmers at district ward and village levels should be supported in their efforts to adopt livelihood capabilities diversification strategies so as to improve their income and finally their livelihood conditions. This is so because from the findings, after the adoption of the free-market economy and removal of subsidies in coffee production, majority of small-scale coffee farmers are incapable in producing coffee mainly due to the attached costs.
- The study also recommended that there is an need more emphasize on youth participation in coffee production. However, older small coffee farmers are not able not to produce quality coffee therefore there is a requirement of encouraging more youth to participate.
- The study recommends that deliberate efforts should be taken by Government and local authority administrative to build trust for famers by ensuring them to access farming inputs, extension services, reliable markets, this will not only improve coffee production but also livelihood of the people in the area where the study took place.

## Conclusions

Coffee production and livelihood capabilities among small-scale coffee farmers are inseparable as they do depend on one another. Coffee production and income generated from coffee have been fluctuating from time to time and therefore, affecting the livelihood of small-scale farmers. Further, the study concludes that there is a critical shortage of coffee farming inputs and extension services among small-scale farmers which to a large extent has resulted into low coffee production and low livelihood capabilities. In addition, for about three decades to date coffee price and the market have not been stable which has led to low income from coffee. As a result, this has compelled small-scale coffee farmers to adopt different livelihood diversification strategies in order to maintain their daily livelihood requirements. But of course, in the process of adopting different livelihood diversification strategies, small-scale coffee farmers encounter several constraints such as soil infertility, un-affordability of pesticides, shortage of capital and inadequate knowledge and skills. If these problems are well addressed, then majority of small-scale coffee farmers can be in a position to diversify their economic activities hence improving their livelihood