

Commercial Soyabean Farming and Household Livelihoods in Kole District Northern Uganda, A Critical Analysis of Farmers Cooperative Society

Mary Ejang¹, Alex Oboi²

¹Senior Lecturer, Department of Public Administration and Management, Lira University

²Assistant Lecturer, Department of Public Administration and Management, Lira University

Abstract

This paper presents the relationship between commercial soyabean farming and household livelihoods of members of Alito Joint Christian Farmers' Cooperative Society Limited (AJCFSL) in Kole district, Uganda. We used mixed method approach and generated quantitative and qualitative data from registered members of AJCFSL. We sampled 155 respondents out of 259 using simple random technique and purposive sampling techniques and collected data using questionnaires and interview guide. The findings reveal that the number of acres cultivated by soyabean farmers ($p < 0.01$, $\beta = 0.637$) is significant in predicting household food security, income, provision of basic needs and responding to emergencies. However, owning storage facilities by farming households is least significant in explaining the contribution of soyabean farming to household livelihood elements ($p < 0.01$, $\beta = 0.216$). The study concludes that planting soya bean on more acres strongly enhance family stability. The study recommends the introduction of easy means of acquiring land titles by farmers; and the introduction of subsidized tractor-hire services to boost production of soya bean and achieve a stable family environment. Further research can be considered with a view of analyzing the relationship between commercial soya bean farming and the financial, human, and physical capitals of farmers in Kole district.

Keywords: Commercial Farming, Soyabean, Farmers' Cooperative, Household Livelihoods

Introduction

Soyabean is a global commodity commonly referred to as glycine max; a grain legume variety of the pea family or fabaceae that provides edible seeds Etiosa, Chika & Benedicta (2017). Global soybean production rose from 27 million tons in 1961 to 334 million tons in 2019 from which Brazil was the leading producer with about 31.2 percent, followed closely by the United States of America at 29.4 percent (Shurtleff & Akiko, 2020). In a related development, Shekhar, Uddin, Zakir, Kabir, (2018) notes that with about 76 million acres, soy bean became the USA's largest cash crop making the nation to be the main exporter of soyabean, accounting for 44 percent of global exports, followed by Brazil with 34 percent. This makes soya production a sustainable global livelihood means.

The concept of livelihoods is as old as mankind. Over centuries, man survived through different livelihoods strategies such as hunting, gatherings, subsistence farming and recently, a shift to commercial farming in some societies (Marozzi, 2015). In most countries of South America, subsistence farming had been the dormant mode of production where most families derived their livelihoods such as food, medical

care, clothing and education through sale of surplus from agricultural production (Folland et al, 2014). Commercial soyabean farming entails the production for the market or for-profit purposes (Ghulam; et al, 2020). Several farmers across the globe started to adopt soya bean farming as a commercial crop for their livelihoods to generate income to support their households.

We use sustainable livelihood approach to explain the linkage between soyabean production and farmers' household living and maintenance taking a case of members of Alito Joint Cooperative Limited. Sustainable livelihood approach offers a broad understanding of livelihoods of people in a given setting (Chambers & Conway 1992; Carney, 2014) that facilitate individual or collective action, generated by networks of relationships, reciprocity, trust, and social norms (Morse & McNamara, 2013) collective action creates value for the people who are connected (Lester, et al 2018; Foschi & Lauriola, 2014).

The soybean planting area in Sub-Saharan Africa has increased dramatically overtime from 20,000 ha in the early 1970s to 1,800,000 ha in 2019; and a production increased from 13,000 tons in the early 1970s to 2,300,000 tons in 2019 (Purcell, Salmeron & Ashlock, 2020). South Africa was the largest soybean producer in Africa in 2019, followed by Nigeria, Zambia, and Uganda as the leading soybean-producing countries in the continent (Khojely et al 2019).

In Eastern Africa, although Kenya produces soyabean, Uganda is the leading producer with an increase in production from 158,000 tons in 2005 to 231,300 tons in 2018, from which much production was registered in Northern and Eastern regions where the cultivated land acreage increased from 144,000 to 150,000 ha (Kabayi; Phinehas; Obaa; Obua; Namara; & Okii, 2017). Since 2002 in Uganda, soyabean breeding and seed systems program improved with support from an alliance between the Ministry of Agriculture, Animal Industry and Fisheries-Vegetable Oil Development Project (MAAIF-VODP); Alliance for a Green Revolution in Africa (AGRA); and Regional Universities Forum for Agricultural Development (RUFAD). This alliance successfully bred, developed and released improved high yielding, early maturing and rust resistant soybean varieties (Uganda Bureau of Statistics; UBoS, 2019). This cooperation boosted soyabean farming for commercial purposes.

In Lango sub-region northern Uganda, commercial soyabean growing witnessed a significant growth overtime. The desire for this trend can be attributed to emerging commercial linkages such as the establishment of processing industries and availability of markets in Kenya, and other neighbouring countries. A study conducted in Mid-Northern Uganda by Kabayi et al (2017) found that the feed industry accounted for about 150 000 tons of soyabean demand annually; and that the growing demand for soyabean by processors such as Mukwano Group of Industries, Mount Meru Investment, and Ngetta Tropical Holdings led to high commercial productivity. It can thus be presumed that farmers' livelihoods have improved with this increased trend in soyabean farming.

Whereas Kabayi et al (2017) argues that there has been significant increase in soyabean production as driven by markets availability, whether this has resulted into improved family livelihoods of farmers in Kole district remains an unanswered. This paper therefore investigates the relationship between commercial soyabean production and household livelihoods, thus bridging an empirical gap.

Statement of the Problem

For decades, subsistence farming has been the dormant source of livelihoods in Northern Uganda where households derive basic necessities of life such as food, income for medical care, clothing and education through sale of surplus foods (NAADS Report, 2018). However, in recent years, several farmers have adopted soyabean farming as a commercial crop in the region. A survey by UBoS (2016) indicates that

farmers in Kole district produced a total of 7,841 metric tons of soyabeans in 2015. Despite being engaged in commercial soyabean production since early 2000s, it is still unknown in terms of empirical research how this has impacted on the livelihoods of farmers in Kole district. Whereas soyabean farming attracted studies such as by Kabayi et al (2017), Shekhal et al (2018), Shurtleff & Akiko (2020), and Ghulam; et al (2020), few have examined the contribution of commercial soya bean production to household livelihoods in Mid-Northern Ugandan. This paper therefore presents the linkages between commercial soyabean farming and family stability of farmers affiliated to Alito Joint Christian Farmers' Cooperative Society Limited in Kole district northern Uganda.

The benefits of commercial farming

Farrington (2011) defines commercial farming as the growing of crops, and or the rearing of animals for raw materials, food, or export, particularly for profitable reasons. The practice is increasingly being gaining momentum as a lucrative business venture, and an avenue to improve livelihoods (Tang, Ibrahim & West, 2012). In this paper, we limit commercial farming to crop production and specifically soyabean production. O'Sullivan & Sheffrin (2013) contend that commercial farming is associated with large scale production involving the use of capital intensive of production means, use of high yielding varieties, production for sale, and some elements of specialization in production. Nonetheless, commercial farming solely focuses on the production of crops and farm animals for sale, using the most advanced, efficient, and recent technologies (Ghulam et al, 2020).

Rindermann (2018) states that commercial farming enhances the capacity of households to increase their income and welfare capability. Socially, Foschi & Lauriola (2014) argue that commercial farming is highly credited for the creation and promotion of social network among farmers as they group to benefit from the bargaining power and the benefits associated with group networks. Thus, commercial soyabean farming can build strong foundation for the livelihoods of farmers (O'Connell, 2018).

A livelihood is a mean of securing the basic necessities for life such as food, water, shelter and clothing of life (Mahroum, 2017). Livelihood is a set of activities that are essential to everyday life that are conducted over one's life span (Gikunda; Abura & Njeru, 2014). A livelihood comprises of the capabilities, assets and activities required for a means of living (Chambers and Conway, 1992; Prothero, 2013).

Social capital is associated with cooperatives that provide linkages and trust utilized by individuals or groups in order to survive or get ahead (Nooy, 2012). Social capital features comprise of the common resources required by individuals to achieve acceptable living strategies, such as family support, connection among people, and other social standards within a society; and it entails social cooperation, mutual collaboration and effectiveness (Kabir, Hou, Akther, Wang & Wang, 2012).

In Northern Ethiopia, a recommendation emanating from a survey conducted by Khojely et al (2019) revealed that soyabean farmers were expected to plant high yielding variety in order to fast track the process of increasing household income. In 2018, FAO recognized Uganda's new soya bean varieties: Maksoy 1N and Maksoy 4M which yield between 2000 - 2500Kg/ha. This could increase the ability of farming households to earn higher income from the increased output as opposed to the use of traditional seeds with low yields per acre.

Commercial Soyabean Farming and household livelihoods

A household is one of the social institutions found in a society. Donald, Cathleen & Heather (2010) contend that a household is a group of people related either recognized by birth or affinity or marriage or

other relationships living under the same roof. The purpose of a family and a household is to maintain the well-being of its members and of society. Ideally, in most human societies, a family is the primary locus of attachment, nurturance, and socialization (Stitt, 2020).

Household livelihood must be of great interest to all stakeholders in society. In essence, household stability is the bedrock that exhibits peace and harmony in a community (Donald, Cathleen & Heather, 2010). Pritchard (2016) corroborates Donald, Cathleen & Heather (2010) that family and household stability encompasses all bonding elements combined to create permanency, solidity and steadiness among members of a unit.

Portrie, Hill and Nicole (2015) posit that household stability is also founded on peace as a pillar, and so members of a household should have a stable livelihood means to avoid conflicts. Parents and children will be comfortable and will enjoy life when the family have stable livelihood means. A study conducted in Eastern Ukraine by Williams, Sawyer, Wahlstrom & Carl (2018) reveal that 52 percent of families who had earlier been into quarrels over unmet family needs had their fate change after engaging in grains production for three consecutive seasons of production. Similarly, the Uganda Demographic Health Survey (UDHS) report (2018) indicates that about 29% of families in rural areas of Uganda had experienced major quarrels or disputes or hard to resolve issues among family members, and that only 8 percent was never involved in such situations. One of the strongest pillars of a stable household is good behaviors among members of a family. This can occur through the sharing of material substances such as food; the giving and receiving of care and nurture of kinship; jural rights and obligations; and moral and sentimental ties (Portrie, Hill & Nicole, 2015; Williams, Sawyer, Wahlstrom & Carl, 2018)

Research indicates that in African production system, household members provide the greatest percentage of labour force for commercial purpose. Gikunda; Abura & Njeru (2014) noted that 73% of soya beans farming households heavily rely on labor provided by household members in the Kenya Highlands. Therefore, a household provides a framework for the production and reproduction of persons biologically and socially (Mosquera, Manstead, Antony, Fischer & Agneta, 2012). In Sebei region of Eastern Uganda, Kiplengat (2019) established that 55 percent of children aged between 14-18 years were already involved in either smoking or drinking substances with alcoholic substance. In such scenario, Stitt (2020) contends that household stability and productivity can hardly be guaranteed.

Ostensibly, household stability provides a sense of constancy, predictability, routine, and continuity (Kadushin, 2012). However, McCornack (2019) posits that a family becomes unstable when it falls short of basic needs provision such as food, healthcare, education, and shelter. In a related study conducted in the KwaZulu Natal province of South Africa, Scott (2014) corroborates that families with little economic prospects were engulfed in conflicts but these conditions changed once they engaged in commercial production that enhanced their basic needs.

Schneider (2013) proved that families can ensure stability by providing strong bonds, consistent discipline, unconditional love, and a safe environment in circumstances that are surrounded by better harvest for food crops, and a mixture of cash crops. Among the Maa tribe of Kenya, Othieno (2017) conducted research which concluded that 74 percent of rural farmers who had engaged in soya bean production, goat rearing, and maize production from 2008-2012 were having very stable families with a divorce rate of 1.77 percent, and a reported violence of only 3.1 percent.

Methods

This paper is based on a study conducted in Kole district focusing on members registered members of

Alito Joint Christian Farmers’ Cooperative Society Limited. The study started in 2021 and was concluded in December, 2022. We examined the relationship between commercial soyabean farming and household livelihoods in Alito sub-county, northern Uganda.

We used descriptive research design and adopted quantitative and qualitative approaches of data collection, analysis. The study population comprised of 259 active and registered soyabean farmers under AJCFCSL and a sample size of 155 was derived using Morgan & Krejcie Table (1970). Both simple random and purposive sampling techniques were used to select the 155 soyabean farmers. A total of 18 informants were drawn from the non-soya bean farming category that included the leadership of selected farmers’ association, District Agricultural Officer, District Commercial Officer, produce dealers, and Seed Dealers, Local Council leaders and opinion leaders from the study area. We used questionnaires and interview guide to collect data on household soyabean production and its linkage to livelihood.

We ran descriptive statistical analysis to establish the mean, standard deviation, frequencies and percentages on farmers’ opinions on the contributions of commercial soyabean production and components of household livelihoods using IBM SPSS version 23. We further applied inferential statistics specifically, coefficient correlations to establish the relationship between commercial soyabean farming and household livelihoods. We used linear regression analysis to determine how commercial soyabean farming relates with family livelihoods. We applied qualitative data to corroborate the statistics in themes and categories of the results.

Results

We realized 100 percent response rate due to the concentration of farmers who were registered members of AJCFCSL in Alito sub-county. The study registered more male respondents (56.13%) than female respondents (43.87%) possibly because of the patriarchal nature of the cooperative and the social norms in Lango culture which still value men as household heads compared to women. Therefore, the Alito Cooperative registered more male farmers than females. The study also registered more married (74.84%) than divorced or separated respondents (1.94%). Having more respondents being married could imply that soyabean farmers in this study area cherish a stable and a peaceful family environment.

The Descriptive Statistics of Commercial Soyabean Farming and Household

We sought the opinion of farmers who were registered members of AJCFCSL on the contribution of soyabean production and household livelihood elements. The essentials of household livelihood constituted of food security, household income, basic needs, scholastic materials, contribution to social functions and bondage among household members and ability to handle shocks or emergencies within a family as presented in Table 1.

Table 1: Opinion on commercial Soyabean Farming and Household livelihoods

Variables	Mean	SD	1-2	3	4-5
Soya bean farming has enhanced my family food security	4.19	0.66	1.9	24.8	73.3
Soyabean production improved my household income	4.55	0.59	6.4	8.0	85.6
Soyabean production enables me to provide basic need to my family (clothing, soap and salt)	4.26	0.67	28.6	6.6	64.8
I have been able to promptly respond to emergencies like sickness	4.14	0.79	18.6	38.7	42.7

I was able to contribute to social responsibilities like marriages and funerals	3.51	0.64	27.2	5.90	66.9
Soyabean production enables me to buy scholastic materials for my children	3.22	0.71	31.3	11	57.7
I have been able to respect and cherish the rights of every family member	4.08	0.55	22.0	9.2	68.8
Total	3.99	0.92	-	-	-

Source: Primary data (2022)

*1-2 (%): Strongly disagree to disagree; *3 (%): Neither disagree nor agree; *4-5 (%): Agree to strongly agree

We note that soyabean production significantly contributed to improved household income, food security and contribution to community social problems. However, household soyabean production made meagre contribution to members’ health in the case of sickness at only 42.7 percent.

The Relationship between Commercial Soya Bean Farming and Household livelihood

All the responses on family livelihoods were run against all the constructs under commercial soya bean farming such as acreage, use of modern technology, improved seeds, yields, storage and marketing with the hope of establishing whether there is a significant relationship between commercial soya bean farming and family stability. The result is presented in the table below:

Table 3: The relationship between commercial soya bean farming and family stability

Family Livelihood	Coefficient	Std. err.	T	P>t	[95% conf. interval]
Number of acres					
<1 acre	Ref				
Between 1-5 acres	0.440	0.220	2	0.047*	0.006- 0.875
Between 6-10acres	0.475	0.225	2.1	0.037*	0.029- 0.920
more than 10 acres	0.396	0.206	1.92	0.057	-0.012- 0.803
Use of modern technology					
Yes	Ref				
No	0.165	0.092	-1.8	0.075	-0.346- 0.017
Planting Improved Seeds					
Yes	Ref				
No	0.021	0.084	0.25	0.802	-0.144- 0.186
Soya bean yield in the last 3years					
<2000kg	Ref				
2,000-4,000kgs	0.089	0.101	0.88	0.378	-0.111- 0.290
4,001-6,000kgs	0.021	0.130	-0.16	0.873	-0.279- 0.237
Over 6,000kgs	0.045	0.167	0.27	0.789	-0.285- 0.374
Own Storage Facilities					
Yes	Ref				
No	0.039	0.073	-0.53	0.596	-0.182- 0.105
Have ready market for soya beans					

Yes	Ref					
No	0.052	0.065	-0.8	0.426	-0.180- 0.077	
_cons	4.091	0.235	17.42	0.000	3.627- 4.555	

The coefficient for number of acres is statistically significant at the 0.05 alpha levels. This indicates that farmers who grow soya bean on 1-5 acres and on 6-10 acres, the predicted score for family stability would be 0.440 points and 0.475 points, respectively. This is because a sizeable acreage such as 5-10 acres is ideal for better harvest as opposed to only one acre of soya bean which is too little to provide or sustain better livelihoods for an average family.

The finding also reveals that use of modern farming technology, planting improved seeds, improved the average yields of soyabean produced, owning a storage facility and having ready markets for soya beans were not statistically significant at the 0.05 alpha levels. The reason of this could be that if a farmer chooses to plant a sizeable number of acres for soyabean, then it is obvious that these components of commercial soyabean farming would be integrated.

In the findings that emanated from KI, the respondents observed:

“Within AJCFCSL, members of household mostly undertake collective decisions on activities, and in the last three years, there has been relative peace and no serious domestic or GBV emanating from our members!” (Interview with the Secretary of ALFCSL on 25th June 2022).

A similar sentiment was echoed by another informant:

“My office handles data on economic activities and issues in Kole district. I am always impressed with soyabean farming households because they have relatively stable families than the non-farmers. To me, the major cause of family instability is always poverty and with my experience of many years in civil service, I learnt that successful commercial farmers have stable families” (KI 01: District Commercial Officer, Kole district, June 18th 2022).

From the interviews, a respondent observed:

“Here in Alito sub-county the cases of GBV are rampant especially among the lazy couples but with soyabean farmers, the couples and their children or other relatives are always busy in their gardens; and they are food secured, and sending their children to schools. To me, in this community, soya bean farming households are more stable socially and financially”. (KI 02, Friday, 24th June 2022).

Linear Regression for Predicting household livelihood

The linear regression analysis was carried out to establish the degree of relationship between all the constructs under commercial soyabean farming and household livelihoods. The results of this analysis are shown in the Table 2.

Table 2: Linear Regression for predicting Household livelihoods

Household Livelihood indicator	Coef.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
Number of acres	0.49	0.14	0.82	0.637	-0.144 0.613	***
Use of modern technology	0.38	0.11	3.59	0.350	0.161 0.556	*
Planting Improved Seeds	0.12	0.14	1.63	0.106	-0.047 0.371	
Soyabean yield	0.21	0.11	2.99	0.066	0.039 0.351	
Own Storage Facilities	0.29	0.21	3.01	0.216	0.031 0.277	

Market for soya beans	0.33	0.13	3.27	0.011	0.048	0.513	
Constant	0.90	0.39	2.27	0.025	0.114	1.689	**

*** p<.01, ** p<.05, * p<.1			
Model Summary			
Mean dependent var	3.960	SD dependent var	0.719
Adjusted R-squared	0.332	Number of obs	106
F-test	11.016	Prob > F	0.000
Akaike crit. (AIC)	161.322	Bayesian crit. (BIC)	201.014
<i>Source: Primary Data, 2022</i>			

From Table 2, the finding reveals that number of acres ($p < 0.01$, $\beta = 0.637$) is significant in predicting household livelihoods of members of AJCFCSL. This is followed by the application of modern technology. Meanwhile, ownership of storage facilities by farming households is least significant in predicting household livelihoods ($p < 0.01$, $\beta = 0.216$) and can only explain a ~21.6 percent variation of factors that are likely to affect family livelihoods of members of AJCFCSL. The results further indicate that the use of modern technology had a moderate influence on soyabean production and household livelihood ($p < 0.01$, $\beta = 0.556$). Generally, the results of this linear regression indicate that there can be 33.2 percent variability in household livelihood even after taking a number of predictor variables (Adjusted $R^2 = 0.332$). Generally, though, the simultaneous variation of constructs under the independent variables which explain household livelihoods to the extent of 33.2 percent, would imply that an increase of 0.332 score should be expected in family stability for every unit increase in number of acres, assuming the constructs under commercial soya bean farming are held constant.

Discussions

According to Merriam & Grenier (2019), discussion of study findings is done to present a contextual relationship between actual findings of a study and the already established records of similar studies conducted in the past. Thus, in establishing the relationship between commercial soya bean farming and family stability, quantitative finding revealed that farmers who grew soya bean on between 1-5 acres and between 6-10 acres had a predicted score that would be 0.440 points and 0.475 points, respectively higher than those who have less than 1 acre. Generally, the results of linear regression indicate that there can be a total of 33.2 percent variability in household livelihood even after taking a number of predictor variables (Adjusted $R^2 = 0.332$) which would imply that an increase of 0.332 score should be expected in household livelihood for every unit increase in number of acres, assuming that all the constructs under commercial soyabean farming are held constant. This implies that farmers who had cultivated more acres of soyabean recorded better livelihood elements than farmers who cultivated few acres of land. This finding corroborates NAADS (2018) that land consolidation and mechanization is a prerequisite for commercial farming hence improved household income. To this end, our finding commensurate Uganda’s Vision 2040 of a transformed society from a peasant to a modern status through commercial agriculture and industrialization (Senkosi, 2015). This finding share similarity with qualitative finding which established that stable household livelihood was witnessed among members of farming households who were involved in collective decision making for soyabean production and other aspects of the family affairs.

These findings are in line with the arguments by Raza, Singh & Bhalla (2019) who conducted a study in Sri Lanka which revealed that 59 percent of farmers who had plenty of grain harvest would be more peaceful than those with low harvest. In regards to this literature, farmers in Kole agreed that commercial soya bean farming had enhanced food security and nutrition for their households; and that they were now able to fend for their family members' basic needs such as clothing, education, health care services and the construction of decent accommodation.

When a household has a stable income, such household have demonstrated coexistence and harmony. Donald et al. and Pritchard opines that family stability is the bedrock that exhibits peace and harmony and improved welfare (Donald et al, 2010; Pritchard 2016). The benefits reaped from soyabean farming could have enabled farmers in Kole district to bond and build trust among household members hence stability of members and the society in general. Foschi & Lauriola (2014) refers to this situation as a bonding capital which incorporates the relationships a person has with his or her family, hence, making it one of the strongest pillars of family stability and livelihoods in Kole district.

Portrie, Hill and Nicole (2015) state that family stability is built on peace as a pillar, and so, members of a family should live in peace and avoid conflicts. A study conducted in Eastern Ukraine by Williams; Sawyer; Wahlstrom & Carl (2018) reveal that 52 percent of families who had earlier been into quarrels over unmet family needs had their fate changed after engaging in grains production for three consecutive seasons of production. Similarly, the UDHS report (2018) indicates that about 8percent of the 29 percent of families in rural areas of Uganda who experienced major quarrels or disputes were not involved in commercial farming. It is thus probable that such disputes could evolve from inadequate basic needs provisions and lack of household income.

The study finding on household stability is highly supported by the social capital theory which carries the assumption that social relationships provide resources that can lead to the development and achievement of both individual and societal goals (Mwangi & Ouma, 2012). In this case, a stable household livelihood environment can support educational attainment of its members to support the development of highly valued and rewarded skills and credentials.

In more detailed reasoning, this paper presents a better ground to argue that by engaging in commercial soyabean farming, members of ALFCSL were well placed to experience better welfare and peace and stability in their families. Such households are better placed to provide timely solutions to disagreements or conflicts, hence minimizing cases of gender-based violence. Robison et al (2020) established that in Bristol City of the United Kingdom, family members who shared common social interests, social practices, eating habit, and who regularly attended social functions together had very strong bonding. This manifestation according to Kislev (2020) indicates the relationship a person has with his or her family members, hence sustained livelihoods. In this paper we resonate with sentiments of social capital theory that the structural dimensions relate to an individual ability to make weak and strong ties with others in a bonded system to complement a household's livelihood strategy as posited by Foschi & Lauriola (2014). Our paper is short of the variation in the farmers' income levels. Yet studies indicate that commercial farming is one of the strategies towards household income improvement. Mwangi & Ouma (2012) established that Kenyan cooperative members easily accessed credit facilities to enhance their commercial agricultural productivity. While membership in the Cooperative widened opportunity for credit access, the amount of money and type of services accessed varied among individual farmers. NAADS (2018) revealed a strong correlation between commercial farming and household incomes.

Conclusion of the Study

This paper presents the relationship between commercial soyabean farming and household livelihoods from which it was revealed that planting more acreage 63 percent had a positive relationship with household livelihood stability of farmers in Kole district. This ascertained our hypothesis of testing whether there was a significant relationship between commercial soyabean farming and farmers' household livelihoods. The study concludes that commercial soyabean production strongly enhance family livelihoods.

We recommend that different stakeholders should streamline the modalities for the acquisition of land titles by interested farmers to consolidate arable land for commercial farming activities. The introduction of subsidized tractor-hire services for members of cooperatives be availed to boost their productive capacity and awareness creation be made by all stakeholders in the field of soyabean production such that all members of cooperatives are informed about the values and benefits of collective bargaining that would accrue to them through engaging in commercial soya bean farming.

Reference

1. Donald C; Cathleen J; & Heather C (2010). *An Introduction to Family Social Works*. Brooks/Cole, Cengage Learning. pp. 28–29. Oxford, Malden & Carlton: Blackwell Publishing.
2. Etiosa, O. R., Chika, N. B., & Benedicta, A. (2017). Mineral and proximate composition of soya bean. *Asian Journal of Physical and Chemical Sciences*, 1-6.
3. Etiosa, O. R., Chika, N. B., & Benedicta, A. (2017). Mineral and proximate composition of soya bean. *Asian Journal of Physical and Chemical Sciences*, 4(3), 1-6.
4. Farrington, J (2011). *Sustainable livelihoods, rights and the new architecture of aid*. Natural Resource Perspectives 69. Overseas Development Institute, London.
5. Folland, Sherman; & Rocco, Lorenzo, eds. (2014). *The Economics of Social Capital and Health: A Conceptual and Empirical Roadmap*. World Scientific Series in Global Healthcare Economics and Public Policy. Vol. 2. Hackensack, New Jersey: World Scientific. p. 236
6. Foschi, R.; Lauriola, M. (2014). "Does sociability predict civic involvement and political Capital': Civic Values versus Economic Equality in the EU". *European Sociological Review*. 19 (3): participation?". *Journal of Personality and Social Psychology*. 106 (2): 339–357.
7. Ghulam; Raza; Mohan B. Singh, Prem L. Bhalla (2020). Atanassov, Atanas (ed.). "In Vitro Plant Regeneration from Commercial Cultivators of SoyaBean". *BioMed Research International, Washington DC*.
8. Gikunda, R. M., Abura, G. O., & Njeru, S. G. (2014). Socio-economic effects of Mpesa adoption on the livelihoods of people in Bureti Sub County, Kenya. *International Journal of Academic Research in Business and Social Sciences*, 4(12), 348.
9. Kabayi, P; Phinehas, T, Obaa, B. Obua, T., Namara, M. & Okii, D., (2017). *Status of Soybean Production and Impact Indicators of New Soybean Varieties in Uganda: A report on the status of recently released soybean varieties in Uganda submitted to the Vegetable Oil Development Project II (VODP II) Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)*, College of Agricultural and Environmental Science, Makerere University P.O. Box 7062, Kampala, Uganda
10. Kabir, M. S., Hou, X., Akther, R., Wang, J., & Wang, L. (2012). Impact of small entrepreneurship on sustainable livelihood assets of rural poor women in Bangladesh. *International Journal of Economics and Finance*, 4(3), 265-280.

11. Kadushin, C. (2012). *Understanding social networks: Theories, concepts, and findings*. Oxford: Oxford University Press.
12. Khojely, D. M., Ibrahim, S. E., Sapey, E., & Han, T. (2019). *History, current status, and prospects of soybean production and research in sub-Saharan Africa*. *The Crop Journal*, 6 (3), 226-235.
13. Kiplengat (2019). *Rediscovering the Later Version of Maslow's Hierarchy of Needs: Self-Transcendence and Opportunities for Theory, Research, and Unification. A Review of General Psychology*, Newcastle. The United Kingdom.
14. Kislev, Elyakim (2020). "How do relationship desire and sociability relate to each other among singles? Longitudinal analysis of the pairfam survey." *Journal of Social and Personal Relationships*
15. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
16. Mahroum, S. (2007). Assessing human resources for science and technology: the 3Ds framework. *Science and Public Policy*, 34(7), 489-499.
17. Marozzi, Marco (2015). "Construction, Robustness Assessment and Application of an Index of Perceived Level of Socio-economic Threat from Immigrants: A Study of 47 European Countries and Regions". *Social Indicators Research*
18. Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons Publications, New Jersey-the USA.
19. Miller, D., Breton-Miller, I. L., & Lester, R. H. (2013). Family firm governance, strategic conformity, and performance: Institutional vs. strategic perspectives. *Organization science*, 24(1), 189-209.
20. Moretti, F., van Vliet, L., Bensing, J., Deledda, G., Mazzi, M., Rimondini, M., ... & Fletcher, I. (2011). A standardized approach to qualitative content analysis of focus group discussions from different countries. *Patient education and counseling*, 82(3), 420-428.
21. Morse, S., & McNamara, N. (2013). *Sustainable livelihood approach: A critique of theory and practice*. Springer Science & Business Media.
22. Mosquera P; Manstead M. R; Antony S.R; Fischer, S; & Agneta H. (2012). "Honor in the Mediterranean and Northern Europe". *Journal of Cross-Cultural Psychology*. 33 (1): 16–36.
23. Mwangi, Isaac Wachira; & Ouma, Alfred (2012). "Social Capital and access to credit in Kenya". *American Journal of Social and Management Sciences*.
24. NAADS Reports (2018). *The National State of Agriculture in Uganda: Regional Outlook*. The NAADS Secretariat, Government of Uganda.
25. Nooy, W. (2012). "Social Network Analysis, Graph Theoretical Approaches to". "Graph Theoretical Approaches to Social Network Analysis". in *Computational Complexity: Theory, Techniques, and Applications (Robert A. Meyers, ed.)*. Springer. pp. 2864–2877.
26. O'Sullivan, A & Sheffrin, S. M. (2013). *Economics in the Farm: Principles in Action*. Upper Saddle River, New Jersey: Pearson Prentice Hall.
27. O'Connell, M (2018). *Human capital and Causal Farmers: A theoretical and empirical analysis with special reference to education* (3rd Ed.). Chicago, IL: University of Chicago Press.
28. Othieno, J.A (2017). *Elements of Education and Social Sciences, Research Methods*. Nairobi, Masola Publishers.
29. Portrie, T; Hill, N & Nicole R. (2015). "Blended Families: A Critical Review of the Current Research". *The Family Journal*. 13 (4): 445–451.

30. Pritchard, C. P (2016). *Mental Health Social Work: Evidence-Based Practice in Cultures with stronger 'extended family traditions', such as Asian and Catholic countries*. Routledge. p. 111.
31. Prothero, R. E. (2013). *English farming, past and present*. Cambridge University Press.
32. Purcell, Larry C.; Salmeron, Montserrat; Ashlock, Lanny (2020). "Chapter 2" (PDF). *Akansas Soybean Production Handbook-MP197*. Little Rock, AR: University of Arkansas Cooperative Extension Service. pp. 1–8. Retrieved May, 28th 2021.
33. Raza, G., Singh, M. B., & Bhalla, P. L. (2019). Somatic embryogenesis and plant regeneration from commercial soybean cultivars. *Plants*, 9(1), 38.
34. Rindermann, H. (2008). "Relevance of education and intelligence at the national level for the economic welfare of people". *Farming Intelligence Origins and Sources*. Cambridge, Cambridge University Press.
35. Robison, Lindon J.; Shupp, Robert S.; Jin, Songqing; Siles, Marcelo E.; Ferrarini, Tawni H. (2020). "The relative importance of selfishness and social capital motives in Bristol City". *The Journal of Socio-Economics*, Cambridge University, the United Kingdom.
36. Schneider, D (2013). *A Critique of the Study of Kinship*. Ann Arbor: University of Michigan Press. p. 182
37. Scott, J. (2014). *The conjugal family refers to a family system of spouses and their dependent children. The term nuclear family is used to refer to a unit consisting of spouses and their dependent children*. Oxford: Oxford University Press. p. 237.
38. Senkosi, M. B., (2015), Uganda's Vision 2040 and Human Needs Promotion; Africa Development, Volume XL, No. 4, 2015, pp. 61-90
39. Shekhar, Hossain, Uddin, Howlader, Zakir Hossain; Kabir, Yearul (2018). *Exploring the Nutrition and Health Benefits of Functional Foods*. IGI Global. p. 223.
40. Shurtleff, W. & Aoyagi, A. (2020). *History of Soybeans and Soy foods in Sweden, Norway, Denmark and Finland (1735-2015: Extensively Anointed Bibliography and Sourcebook*. Lafayette, CA: Soyinfo Center. p. 490.
41. Stitt, A. (2020). *ACT For Gender Identity: The Comprehensive Guide*. London: Jessica Kingsley Publishers. pp. 372–376.
42. Tang, T. L.; Ibrahim, A. H.; & West, W. B. (2012). "Effects of war-related stress on the satisfaction of human needs: The United States and the Middle East". *International Journal of Management Theory and Practices*.
43. The Uganda Bureau of Statistics (2020). *Estimations of Area Specific Profile Series*, Kampala, Uganda.
44. The UNHS (2017). *The Uganda National Household Survey*, the sixth series of national household surveys. Supported by the Uganda Bureau of Statistics (UBOS), Government of Uganda
45. Uganda Demographics and Housing Survey (UDHS, 2018), *the Uganda National Bureau of Statistics*. Government of Uganda, Kampala
46. Williams B; Sawyer S. C.; Wahlstrom, L & Carl M. (2018). *Marriages, Families & Intimate Relationships*. Boston, MA: Pearson. 0-205-36674-0.