Volume 3 Number 1
2023

Tanzania Journal of Community Development (TAJOCODE)

Online: ISSN 2773-675X

The Journal that advances the profession and practice of Community Development

JOURNAL INFORMATION

The Department of Agricultural Extension and Community Development owns as well as offers its expertise and oversees the management and the review process of the journal. Even though, editorial decisions are based on the quality of submissions and appropriate peer review, rather than on any political, financial, or personal influences from the department, Sokoine University of Agriculture (SUA), and other stakeholders. TAJOCODE follows Committee on Publication Ethics (COPE) guidelines (visit www.publicationethics.org for details) to manage its peer-review process. All authors are welcome to submit complaints and appeals to the editor's decisions. Please contact the Chief Editors for any queries.

EDITORIAL BOARD

Information on submission

TAJOCODE is a peer reviewed journal. Visit journal's website for details https://www.coa.sua.ac.tz/extension/tanzania-journal-of-community-development-tajocode

DISCLAIMER

Impact of Rural - Urban Migration of Youth on Rice Production in Kilosa District, Tanzania

Edwin Butaga Sao[1] and Baraka Reuben Mwandilawa[2]

Article history
Received:11/10/23
Revised: 04/10/24
Accepted:10/10/24
Published online: 16/10/2024

Keywords: Soil, Rural urban migration, Youth and Rice production

The study investigated the impact of the Rural-Urban Migration of youth on rice production in Kilosa district. Specifically, the study examined the effects on rice production in the study area because of youth migration to urban areas. The theory used for guidance in this study is push-pull theory. The cross-sectional survey design chosen because allows the researcher to associate several variables at the same time. The study used simple random sampling to abtain100 informants among rice farmers and purposive sampling technique to get a sample of 10 key informants. The study employed semi structured interview; key informants interview; focus group discussion and documentary review as data collection methods. The study concluded that youth are very potential to make an important contribution to rice production at different stages. They contribute effectively on rice production based rural economy would be well organized, and therefore contribute in alleviating poverty. The study concluded that there was a rural urban migration of youth in the study area. The rural urban migration of youth led to shortage of labour force. It was evidenced that there was a direct relationship between rural urban migration of youth and decrease in rice production.

[1] Kilosa District P.O. Box 62, Kilosa, Tanzania Emails: ebutaga@gmail.com.
[2] (Corresponding Author) Institute of Development Studies, The University of Dodoma, P.O. Box 395, Dodoma, Tanzania. Email: rmwandilawabr@gmail.com

Suggested citation: Sao, E. B. and Mwandilawa, B. R. (2023). "Impact of Rural - Urban Migration of Youth on Rice Production in Kilosa District, Tanzania," Tanzania Journal of Community Development 3(1): 40-54

1.0. Introduction

Rice is grown almost all over the world and approximately 158 million hectares are under cultivation of rice production (Muthayya *et al.,* 2014). The production is estimated to be 700million tons yearly equivalent to 470 million tons of milled rice worldwide (Muthayya *et al.,* 2014). It is the second largest food crop in production all over the world next to maize (Duku et al., 2016; Duvvuru & Motkuri, 2013). Rice has become the largest main food crop for human consumption in the World. Most of the rice cultivation produced in Asian countries are China and India are the two leading rice producer countries in the world, and Asia, rice is staple food for about 90% of the people living in the continent (Duvvuru & Motkuri, 2013). Asia produces about 640 million tons of rice which accounts for 90% of global rice production in the world. In Latin America and the Caribbean, rice boosted yields to records, resulting in 28.0 million tons. The rice production in Africa is also all-time high at 32.1 million tons (Chauhan *et al.,* 2017). Global output of rice staging at 10.3 million tons annual expansion to a high of 769.9 million tons equivalent to 510.6 million tons of milled rice (Chapagain & Hoekstra, 2011). This could be a good indication of rice production growth but factors such as floods and climate change disrupted production in Asia while in Africa, soil infertility, diseases, pests, unreliable rainfall, and scarce farm labours are also causing the low yield of rice production

Besides meeting local consumption demands, the rice sector is a main source of income and employment in rural areas (Ngaiza, 2012). The other regions participating in rice production apart from Morogoro are Shinyanga, Tabora, Mwanza, Mbeya and Rukwa. Others include Kilimanjaro, Arusha, Manyara, Iringa, Mara, Tanga and Kigoma (Ngaiza, 2012).

Rice production in Tanzania has many smallholder farmers who ordinarily cultivate 0.3 to 3 hectares (Rowhani *et al.,* 2011). Rice is grown as upland rice and lowland rice by smallholder farmers. It is observed that 74% of rice is essentially produced as upland rice through rain fed practice. Only 6% of rice is grown by large Scale Farmers or Out growers which are trading firms (Nasrin *et al.,* 2015). Rice grown under irrigation practice is 0.3% of small-scale farming and 56% of large-scale farming. The yield of rice ranges from 0.3 to 1 ton/ha under small-scale farming (Duku *et al.,*2016). This yield of rice is still far below the potential yield which is set at 5 tons/ha.

Farming activities are labour intensive and require a strong workforce. Farm labour plays a central role to facilitate farm preparation, planting, weeding, fertilizer application, and harvesting of farm rice (Achandi *et al.,* 2018). About 78% of farm task entails physical labour and limited availability of farm labour entails that lots of farming practices are left out. According to Kwesiga *et al., (*2020), youth are an important resource for farm operations to increase the crop yield in Tanzania. In many rural areas of Africa, Tanzania being inclusive some farm operations are left to elderly people while more than 56% of dwellers in rural areas are dominated by youths. Unfortunately, some of youths who are energetic tend to migrate to urban areas.

Rural-Urban Migration of youth is being promoted by slow delivery of rural public services (Herrera-Almanza & Sahn, 2020). The youth aged between 15-25 years are the ones who mostly move from rural to urban places with intention of having a better life (Dadi, 2021); (Dokubo et al., 2023). It is projected that 61% of young energetic individuals are flowing to urban from rural areas in Africa for hoping a better life (Simbila, 2022). This affects population size as well as the farm labour supply in rural areas.

1.1. Empirical Literature

The reviews of the empirical literatures have shown that family labour and hired farm labour affect agricultural production. The farm labour had influenced crop production (Dokubo et al., 2023).

The previous studies show that out-migration and labour supply were interlinked. The studies further revealed that scarcity of labour in rural areas may define why farming output level is lower than expected (Nkwabi, J., Sharma, R., Dev, K., & Sharma, S, 2021).
It is also found that the literatures did not specify that out-migration involved youth, and its important in crop production. Based on reviewed literatures, limited literatures have shown not whether rural-urban migration of youth has an impact on rice crop production in Tanzania. Therefore, this study aims to contribute on the gap seen through reviewed literatures.

1.2. Theoretical Underpinning of Rural urban migration of youth

The push-pull theory which developed by Everett Spurggeon Lee in 1965 adopted to analyse the impact of rural urban migration of youth in rice production in kilosa District. According to Lee (1966) the decision to migrate is determined by four categories of factors; these include factors associated with the area of origin; factors related to the area of destination; factors related to the intervening obstacles (such as distance, physical obstacles, immigration laws and so on) and personal factors (Van, et al., 2018). Lee (1966) argued that migration tends to take place within the well-defined streams, from specific places at the origin to exact places at the terminals or destination, not only because chances tend to be extremely localized but also because the flow of knowledge back from destination accelerates the channel for future migrants.

The push factors are factors which force someone to move, due to diverse reasons, to leave that place and go to some other parts. Push factors include non-availability of enough livelihood opportunities, poverty, rapid population growth that surpasses available resources, The common push factors are low production, joblessness and underdevelopment, poor economic situations, lack of chances for development or improvement, exhaustion of natural resources and natural catastrophes. "Primitive" or “poor” living conditions, desertification, famines or droughts, fear of political persecution, poor healthcare, loss of wealth, and natural disasters (Thet, 2014). Unavailability of alternative sources of income in rural places is another important factor for human migration (Ifeanyichukwu et al., 2016; Thet, 2014).

Pull factors are exactly the opposite of push factors they attract people to a certain location. Typical examples of pull factors of a place are more job opportunities and better living conditions; easy availability of land for settling and agriculture, political and/or religious freedom, superior education and welfare systems, better transportation and communication facilities, better healthcare system and stress-free environment attractive, and security (Dickson, 2020). The theory explains five assumptions of migration which motivate people to move which are economic factors, demographic factors, socio-cultural factors, political factors, and miscellaneous factors.

Economic Factors: Most of the studies specify that migration is primarily motivated by economic factors. In less developed countries, low agricultural income, agricultural unemployment, and underemployment are considered basic factors pushing the migrants towards advanced places with better job opportunities. Thus, most of the literatures concur that most of migrants have moved in search of better economic prospects. The basic economic factors which motivate migration may be further classified as ‘Push Factors’ and ‘Pull Factors’. The push factors are factors which force someone to move, due to diverse reasons, to leave that place and go to some other parts. The Pull Factors are factors that attract the migrants to another place. Opportunities for better occupation, higher wages, facilities, supper working situations and attractive amenities are pull factors for migrants (Heckert, 2015).

Demographic Factor: The differences in the population growth rates of the different regions of a nation have been originate to be a cause of the internal migration. Fertility and the natural increase

in population are mostly higher in rural places which drift the population towards the city. Other significant demographic factor in internal migration is marriage since females are used to follow their spouses (Ifeanyichukwu et al., 2016).

Socío-cultural Factors: Social and cultural factors is another vital role in migration. Sometimes family conflicts, the quest for independence, also cause migration particularly, of those in the younger generation. Better communication services, like transportation, influence of television, good communication system, the cinema, the urban oriented education and resultant change in attitudes and values also promote migration (Heckert, 2015).

Political Factors: Sometimes even political factors encourage or discourage migration from region to another. After 1948, most of rural people migrated to urban because of safety in Myanmar. Hence, the political background, attitudes and individual viewpoint of the people influenced on the migration of people. Miscellaneous Factors: other aspects such as the existence of relatives and friends in urban areas, desire to obtain education that is available only in urban areas are reasons responsible for migration (Thet, 2014).

Globalization is the nearer integration of the countries and persons of the world that has been brought about by the huge reduction costs of transportation and communication and the breaching down of barriers to the flow of goods, services, capital, knowledge, and people across boundaries (Dickson, 2020). The researcher opted to use push-pull factor theory because explains the root causes of human migration. The theory relates to the study variable like age because most migrants are the youth, most educated (Education).

The Push pull theory has a strength in emphasizing the root cause of human migration. Those roots cause can be political caused factors (wars), economic factors (seeking employment), Social factors (Education, health, marriage ect), cultural factors (based on gender), Technological advancement and globalization. The theory of push-pull factor criticized that, the theory does not explain the effects of human migration which may occur in both countries that are origin and destination countries Thet, 2021). The theory of push-pull factor does not tell the conditions of lives of migrants whether become good or remained poor after the arrival in the destination place (Heckert, 2015).

2.0. Methodology

2.1 The Study Area and Justification for its Selection

Kilosa district was selected as a study area because experienced the decrease in production from the farming season of 2016/17, the production was 73,549 tones, 2017/18 production was 68086 tones, and 2018/19 the production was 51,280 tonnes (KDC, 2020). Kilosa District is found in the east-central zone in Tanzania, about 148 Km from Morogoro town and about 300Km west of Dar es Salaam. Kilosa extends between latitude 5°55' and 7°53' South and longitudes 36°30' and 37°30' east. The District occupies 12,394 square kilometres; is divided into 35 wards and 118 recorded villages with 752 hamlets; has two parliamentary constituencies and two township authorities (Kilosa and Mikumi). Kilosa district is one of the seven districts of the Morogoro region in Tanzania. Its administrative seat is Kilosa town. It is bordered to the North by the Manyara Region, to the Northeast by Tanga region, to the East by Mvomero district, to the Southeast by Morogoro rural district, to the South by Kilombero district, and to the Southwest by the Dodoma region. Agriculture is the core economic activities and most of the people in the district involve in farming of both subsistence and cash crops. The chief food crops are paddy, maize, beans, cassava and bananas and the main cash crops include sisal, sugar cane, cotton, simsim, and sunflower. Crops like rice, maize and beans can fall into both categories of cash and subsistence. The district has 536,590 hectares suitable for agriculture in cultivation of cash and food crops. Approximately 93% of land used for farming is under subsistence crop production, while 7% is used for cash crop (KDC, 2016).

Kilosa district has few industries. The major important industry in the district is ILOVO sugar factories which deal with the processing sugar and cane sprites, sisal fibres factories of Kimamba, other found in Rudewa and Msowero villages and other small-scale industries under local people (KDC, 2016).The livestock keeping is another economic activity undertaken in the district which includes cattle, goats, sheep, pig and diary. This has been done mostly by the Maasai, Mang'ati and Sukuma tribes who travel from their regions. Grazing is the main type of livestock keeping used by livestock keepers which in turn produce social and environmental penalties. The area suitable for grazing is 483,390 ha. The carrying capacity of the suitable area is 192,956 ha livestock (standard is that 2.5 ha per cattle) (KDC, 2016).

2.2. Sampling and Sample Size

Sampling techniques is a plan that stipulates how the informants of the research was chosen. The course of gaining details about the whole population by investigating part of it (Kothari, 2004; Kombo and Tromp 2006). The study used simple random sampling to abtain100 informants among rice farmers and purposive sampling technique to get a sample of 10 key informants. The sample size of the study consisted of 100 respondents who were randomly selected in the study areas and 10 key informants who were selected purposively.

In probability sampling, every element in the population is stated an equal and autonomous chance to be chosen (Kumar, 2011). In this study, where else, through simple random sampling about 100 informants among rice farmers were selected. Simple random sampling guarantees the rule of statistical uniformity that states: "*If on average the sample chosen is a random one, the sample will have the same structure and features as the universe" (Kothari, 2004).*

With regards to non-probability sampling, the researcher employed purposive sampling technique to get a sample for study (Kothari, 2004). These are informants who are knowledgeable about the study (research) topic and are included in the delivery of supports to farmers as extension officers and government officials and/ or involved in the management of rice production (Kothari, 2004). At the first time, purposive sampling was applied as a method of obtaining best information by choosing people and places mostly provide quality information on the research topic (Denscombe, 2014).

Moreover, village and ward top officials and extension officers were purposively sampled. The researcher introduced himself and explained the objective of the study. The division officer chose one extension officer and WEO who cooperated and assisted the researcher during the entire period of the study. In addition, rice farmers were selected using probability sampling techniques by employing random sampling methods to obtain 100 participants among rice farmers. In Probability sampling, every element in the population has equal and autonomous chance to be chosen (Kumar, 2011).

2.4.2 Sample Size

Sample size is the number of substances to be chosen from the cosmos to establish a sample (Malhotra, 1996; Kothari, 2011). Sample Size Determination by calculation adopted the formula of Taro Yamane (Yamane, 1973).
The formula used to attain a sample from a population is Taro Yamane (Yamane, 1973) & (Uakarn, 2021) as summarized below;

$$n = \frac{N}{1+(e)^2}$$

Whereby 'n' is a sample size,

'N' is a population size
'e' is the error detection estimated to be 10% or 0.1

The sample size for this study was $n = \frac{14084}{1+14084\times0.1\times0.1} = 99.29$

The sample size approximated to 100 respondents who are rice farmers that were proportionately selected in three (3) villages. The respondents were rice farmers selected in three villages which are Ilonga, Chanzuru and Mfuruni.

2.3 Data Collection Methods

The methods used for data collection include Interview Method, semi-structured interviews, Focus Group discussion and documentary review. The survey used questionnaires as a tool for collecting data from rice farmers. Questionnaire tool administered to rice farmers through distribution of hard copies and they were requested to fill in their responses. Semi-structured interviews were conducted to key informants, each conducted based on individual experiences and understandings about the topic of the study. Focus group discussion is a technique of gathering information or data collection that allows people's views and feelings to arise but within the control of the interviewer (Robson, 2002). Focus group discussion was facilitated and managed by means of open-ended questions related to the research objectives, to allow the participants to respond from their point of view. The method helped to obtain qualitative data. Documentary review was used to collect secondary data from existing documents. It is the review of the material gathered from other earlier studies, such as published material, and

material from internal sources such as raw data and unpublished synopses (Best and Khan, 1998; Mbogo et al., 2012).

Qualitative data was analyzed by using content analysis. Content analysis is a research instrument (tool) used to determine the presence of a certain arguments (words), melodies (themes) or concepts (ideas, notions, thoughts or perceptions) within some given qualitative data (Robson, 2002). Using content analysis, a researcher quantified and analysed the same presence of meanings of statements of the same thoughts, and relationships of that themes and concepts collected and captured from the field as primary data.

The quantitative data was analysed using descriptive statistical analysis. Data were presented in tables, figures and charts to show **percentages** and frequencies. This method of data analysis is simple and can be easily understood by the majority. Information was also interpreted following the research objectives to get answers related to research questions.

3.0. Results and Discussions

3.1 Sex of Respondents

Table 1 shows that 44(44%) and 56(56%) were male and female respondents respectively. The study included both male and female respondents, because both categories of interviewees are involved in rice farming. These results imply that there were more female who participated in rice farming than male. Less than half number of males involved in rice farming could be attributed to the tendency of more men to migrate to urban areas for alternative activities to do. This implies that in the study area female participate more in rice production than male. Females participate more in farming activities than males because, males participate in other activities apart from crop production (Lawi, 2016).

Table 1: Sex of respondents

Variable Description	Frequency	Percentage
Male	44	44
Female	56	56
Total	100	100

Source: Field data; 2021

3.2 Marital Status of Respondents

Table 2 shows that 50(50%) and 32(32%) of respondents were married and single respectively. While 5% of respondents were separated and widow respectively. This reveals that married farmers participate more in rice production compared to other marital statuses. Married farmers who participate more in farming activities are women because men engage in other activities apart from crop production (Lawi, 2016). This implies that married people engage more in rice production than other marital statuses.

According to the study done by Mbah et al., (2016) revealed that most of the interviewees (91.2%) were married and single were 8.8%. This implies that there was larger participation of married individuals in farming activities to ensure household food security. The participation of the married people in farming activities is because of the requirement to complement family means of livelihood (Islam, S., Jahan, M., & Yesmin, S, 2022).

Table 2: Marital status of respondents

Variable Description	Frequency	Percentage
Single	32	32
Married	50	50
Separated	5	5
Widow/ widower	5	5
Divorced	8	8
Total	100	100

Source: Field data 2021

3.3 Youth Participation in Rice Production in Rural Areas

3.3.1 Participation of Youth in Rice Production.

Table 3 reveals that 48(48%) of the total respondents agreed that in their families the migrated youth participated in rice faming before their departure. This implies that youth migration can affect rice production within their families and cause food insecurity at family level. While 43(43%) indicate that youth in their families did not migrate to urban. This could be their youth or children are still schooling or are married in rural and decided to stay in rural areas and continue with various economic activities. Rice production is among of the main sources of employment and income for various farming families particularly in rural areas. It is increasingly significant to the Tanzanian economy (Ngaiza, 2012).

Through in-depth interview with one of the village officials had the following to say about youth participation in rice production. In interview in Ilonga village one official said that:
Currently youth are participating more in rice farming and their response is increasing, but they like to participate in rice farming because they have no alternative jobs to do. This is justified when casual works appear here at the village, they immediately prefer doing casual works like road construction, and leave agriculture. (In-depth interview-04th June, 2021- Ilonga village).

With regards to youth participation in rice production members of FGD stated:
"*Youth used to participate well in rice production and are helpful in many farm activities. For youth who volunteer much in doing farming activities are not lazy and their lives are much better than other youth who are not engaging in economic activities including farming. Youth who engage in farming activities during the farming season also engage in other economic activities after harvest, this makes them to earn extra income than their counterpart youth* (FGD, 5th June,2021 ilonga village).

Table 3: Participation of Youth in Rice Production in Rural Areas

Variable	Description	Frequencies	Percentage (%)
Participation of Youth in rice Production	**Yes**	48	48
	No	9	9
	N/A	43	43
	Total	100	100

Source: Field data; 2021

3.4 Rural- urban Migration of Youth

Table 4 indicate that; about 49(49%) of families in the study area did not experience youth who migrated to urban areas. And majority which constitutes 51(51%) of families of respondents experienced youth migration to urban areas. This implies that there is a rural urban migration of youth in the study areas. According to *Income deferential model* developed by Todaro, (1969) and Todaro and Harris (1970) both explained around rural urban migration choices. The model says that rural urban movement occurs due to expected good current income differentials occurred between rural and urban areas. In other words, youth or active workers will continue moving from rural to urban places until wages they expect to gain or earn is balanced to the wage expect to receive in rural places.

Youth tend to migrate due to different social factors which they experience due to the changes in physical development which complemented by cognitive, social, emotion and relational changes. This time youth build their own characters due to external factors like peers, media, economic and cultural environment in which they live (Juárez et al., 2013). Earlier studies show that majority of internal migrants are young people, aged 15 to 34 years old, who migrate to look for occupation opportunities or chances (Ba CBJ & Diop D, 2007). The youth aged between 15-25 years are the ones who mostly move from rural to urban places with intention of having a better life (Shi, 2020). The study conducted in Nigeria by Alarima which comprised of 240 youth respondents from three local government areas of the state revealed that youth who are used to migrate are mainly aged between 17 to 22 years. The study further more discovered that the majorities about 68.8% of the interviewees were male while 31.3% were female. This infers that there were more migrant males than the migrant females in the study areas (Alarima, C. I. (2019)

Table 4: Rural- Urban Migration of Youth

Variable or Characteristics	Description	Frequencies	Respondents (%)
Rural urban migration of youth	**Yes**	**51**	**51**
	No	**49**	**49**
	Total	**100**	**100**

Source: Field data, 2021

3.5 Effects of Youth Migration to Rural Areas

3.5.1 Effects of Rural-Urban migration of youth on rice production

This section examines the effects on rice production in the study area because of youth migration to rural areas.

Table 5: Effects of Rural-Urban migration of youth on rice production

Variable	P-value	AOR	95% CI for AOR	
			Lower	Upper
Rural urban Migration cause Changes in rice production				
High	0.192	5.702	0.418	77.765
Moderate	0.8	1.206	0.282	5.155
Low	0.504	1.635	0.386	6.922

Variable	P-value	AOR	95% CI for AOR	
			Lower	Upper
No changes	0.675	1.423	0.274	7.388
N/A	.	1	.	.
Rating of Rural Urban migration of Youth				
High	0.008*	144.74	3.704	5655.631
Moderate	0.004*	37.016	3.146	435.526
Low	0.074	9.864	0.803	121.131
No migration	.	1	.	.
Rice farming is a preference job for uneducated Youth				
Strongly Disagree	0.017*	263.263	2.741	25284.84
Disagree	0.024*	237.911	2.061	27464.67
Neutral	0.016*	438.221	3.059	62770.98
Agree	0.018*	258.899	2.619	25597.16
Strongly Agree	.	1	.	.
Agriculture activities are not Payable				
Strongly Disagree	0.729	1.646	0.098	27.774
Disagree	0.181	4.27	0.508	35.891
Neutral	0.249	4.55	0.346	59.832
Agree	0.112	6.002	0.66	54.546
Strongly Agree	.	1	.	.
Lack Capital				
Strongly Disagree	0.529	2.4	0.158	36.564
Disagree	0.055	6.953	0.959	50.41
Neutral	0.002*	438.16	9.194	20880.65
Agree	0.322	2.356	0.432	12.851
Strongly Agree	.	1	.	.
Youth go to town due to Parents' influence				
Strongly Disagree	0.731	2.05	0.034	123.029
Disagree	0.73	1.949	0.044	86.183
Neutral	0.653	0.391	0.006	23.627
Agree	0.545	3.192	0.074	136.936
Strongly Agree	.	1	.	.
Youth's bad Perception on Agriculture				
Strongly Disagree	0.718	1.682	0.101	28.115
Disagree	0.369	0.484	0.099	2.355
Neutral	0.015*	47.266	2.128	1049.609
Agree	0.529	0.627	0.147	2.674
Strongly Agree	.	1	.	.
Rural Urban Migration of Youth cause decrease in Rice Production				
Strongly Disagree	0.054	0.057	0.003	1.053
Disagree	0.256	0.279	0.031	2.527
Neutral	0.977	1.033	0.12	8.897
Agree	0.295	0.346	0.047	2.528
Strongly Agree	.	1	.	.

Variable	P-value	AOR	95% CI for AOR	
			Lower	Upper
Scale				

Model is significant at (P=0.041), R^2 = 0.403 *Significance was considered at 5% (P≤0.05).

Table 5 indicates high rate of rural urban migration and moderate rate of rural urban 3 migration of youth are significant factors for migration while low and no migration are not 4 significant factors for migration. Participants who responded high by rating rural urban migration of youth in their families (AOR = 0.008, p= 144.74) increased by 144 times compared to participants who rated no migration in their families. And participants rated moderate of rural urban migration of youth in their families (AOR = 0.004, p= 37.016) increased by 37 times compared to those rated no migration in their families. Families in Nigeria record rural urban migration of youth 2 times yearly than youth remain at their home

Table 5 indicates strongly disagree, disagree, neutral and agree are significant factors for effects of rice production for the variable of rice farming is a preference job for uneducated youth. Participants who responded strongly disagree that, rice farming is a preference job for uneducated Youth (AOR = 0.017, p= 263.263) increases 263 times compared to those responded strongly agree, while participants responded disagree (AOR = 0.024, p= 237.911) increased by 237 times compared participants strongly agree. Participants remained neutral (AOR = 0.016, p= 438.221) increased by 438 times compared participants strongly agree. And participants responded agree (AOR = 0.018, p= 258.899) increased by 258 times compared participants strongly agree.

The first major challenge mentioned is youth's inadequate access to appropriate farming knowledge, information, and education (ILO, 2020). Low and inadequate education restrict rice production and the achievement**s** of skills, while inadequate access to knowledge and information limits the high rice production (Rota A., Chakrabarti S., & Sperandini S, 2012). Particularly in developing nations, there are different needs for improving rural youth to access the education, and to integrate agricultural skills into rural education (Golob, 2009).

Farming training and education should also be modified to guarantee graduates' skills meet the needs of rural youth needs in rice production (Bassie, H., Sirany, T., & Alemu, B, 2022). Table 5 indicates that neutral is significant factor for the variable lack of capital to invest in rice farming motivating rural urban migration of youth while strongly disagree, disagree, and agree are not significant factors. Participants remained neutral about lack of capital to invest in rice farming stimulating rural urban migration of youth (AOR = 0.002, p= 438.16) increased by 438 times compared to participants strongly agree.

Table 5 indicates that neutral is significant factors for migration of youth's bad perception on agriculture while strongly disagree, disagree, and agree are not significant factors for migration. Participants responded agree on the Youth's bad perception on agriculture (AOR = 0.015, p= 47.266) increased by 47 times compared participants strongly agree. Graduates from colleges and universities most of them trained for collar jobs in different sectors (Ajaero & Onokala, 2013). Youth who graduate from different colleges and universities search jobs according to their professions which found in rural areas, and therefore provide room for rural youth to migrate from rural to urban where more vacant of white jobs are available (URT, 2021).

4.0. Conclusions and Recommendations

The study discovered that, youth are very important and potential to make an important contribution to rice farming development at diverse stages that give a wonderful chance for developing a rice farming based rural economy if correctly harnessed. Furthermore, the study concluded that youth deliver an opportunity for bigger economic development through their participation in rice farming, which is the major activity in rural areas in Tanzania. Furthermore, youth face a lot of challenges in rice farming activities which hinder them to achieve their intended goals which include lack of capital (financial) to invest in rice farming activities limits youth to achieve modern farming practices.

The crop farming perceived as not paying and its economic returns are very slow and sometimes experienced loss. Rural urban migration of youth was also concluded as the challenge that reduces workforce in rural setting which is very potential resources in rice farming in rural areas.

Firstly; the study recommends that the government and agencies should find appropriate strategies of reducing rural urban movement of youth to assure labour supply and constant workforce for agriculture sector in rural areas. Secondly, the government should transform rice farming from tradition to modern agriculture with well arrangements of irrigation system which will enable farmers to cultivate all the time without depending on weather and rainfall. The societies must change their bad perception that agriculture is a dirty job, it is a job for unprofessional people with low rewards. This will help rural youth to stay and engage in rice production. Thirdly, the government should employ more extension officers, and ensure mechanical farm operations to discourage hand hoe which is no longer profitable, ensure provision of farming inputs and encourage private companies' intervention to add values of rice products and markets.

References

Achandi, E. L., Mujawamariya, G., Agboh-Noameshie, A. R., Gebremariam, S., Rahalivavololona, N., & Rodenburg, J. (2018). Women's access to agricultural technologies in rice production and processing hubs: A comparative analysis of Ethiopia, Madagascar and Tanzania. *Journal of Rural Studies*. 60, 188-198 https://doi.org/10.1016/j.jrurstud.2018.03.011

Ajaero, C. K., & Onokala, P. C. (2013). The Effects of rural-urban migration on rural communities of Southeastern Nigeria. *International Journal of Population Research, 2013(1),* 610193.

Alarima, C. I. (2019). Factors influencing rural-urban migration of youths in Osun State, Nigeria. *Agro-Science*, *17*(3), 34. https://doi.org/10.4314/as.v17i3.6Bassie, H., Sirany, T., & Alemu, B. (2022). Rural-urban labor migration, remittances, and its effect on migrant-sending farm households: Northwest Ethiopia. *Advances in Agricultur*

Chapagain, A. K., & Hoekstra, A. Y. (2011). The blue, green and grey water footprint of rice from production and consumption perspectives. *Ecological Economics*. *70(4),* 749-758. https://doi.org/10.1016/j.ecolecon.2010.11.012

Dadi, J. (2021). *The Effects of youth rural-urban migration on the socio-economic aspects of migrant-sending rural households ; the case of Yaya Gulale woreda*. *(Master's dissertation)*. Jimma University

Dokubo, E. M., Sennuga, S. O., Omolayo, A. F., & Barnabas, T. M. (2023). Effect of rural-urban migration among the youths and its impacts on agricultural development in Kuje area council , Abuja , Nigeria. *Science and Technology, 4(2),* 12–27.

Duku, C., Sparks, A. H., & Zwart, S. J. (2016). Spatial modelling of rice yield losses in Tanzania due to bacterial leaf blight and leaf blast in a changing climate. *Climatic Change*. *135*, 569-583. https://doi.org/10.1007/s10584-015-1580-2

Duvvuru, N. R., & Motkuri, V. (2013). *Declining labour use in agriculture : a case of rice cultivation in Andhra Pradesh*. *49204*, 1–38. https://doi.org/10.13140/RG.2.2.16594.04809.
Golob, P., Baxall, R., & Gallat, S. (2009). On-farm post-harvest management of food grains. In *Food and Agriculture Organization of the United Nations*.
Heckert, J. (2015). New perspective on youth migration: Motives and family investment patterns. *Demographic Research*, *33*(1), 765–800. https://doi.org /10.4054/DemRes.2015.33.27
Herrera-Almanza, C., & Sahn, D. E. (2020). Childhood determinants of internal youth migration in Senegal. *Demographic Research*, *43*(45), 1335–1366. https://doi.org/10.4054/DemRes.2020.43.45 Islam, S., Jahan, M., & Yesmin, S. (2022). The rural-urban migration and its socio-economic consequences: A study on the Rayerbazar area of Dhaka city. *International Journal of Publication and Social Studies, 7*(1), 12–18. https://doi.org/10. 55493/5050.v7i1.4452
ILO. (2020). Global employment trends for youth 2020: Technology and the future of jobs. International Labour Organisation (ILO).
Juárez, F., LeGrand, T., Lloyd, C. B., Singh, S., & Hertrich, V. (2013). Youth migration and transitions to adulthood in developing countries. *Annals of the American Academy of Political and Social Science*, *648*(1), 6–15. https://doi.org/10.1177/0002716213485052
Kwesiga, J., Grotelüschen, K., Senthilkumar, K., Neuhoff, D., Döring, T. F., & Becker, M. (2020). Rice yield gaps in smallholder systems of the kilombero floodplain in Tanzania. *Agronomy, 10(8), 1135*. https://doi.org/10.3390/ agronomy 10081135
Lawi, J. (2013). The rapid growth of towns and migration in Tanzania: A case study of Babati town. *International Journal of Business, Humanities and Technology*, *3*(7), 48–57.
Mbah, E., Ezeano, C., & Agada, M. (2016). Effects of rural-urban youth migration on farm families in Benue state, Nigeria. *International Journal of Agricultural Research, Innovation and Technology*, *6*(1), 14–20. https://doi. org/10.3329/ijarit.v6i1.29207
Mfinanga R. C. (2022). *Availability and accessibility of agricultural market information by small scale farmers in Babati district (Doctoral dissertation),* The Open University of Tanzania.
Msoline, D. E. (2020). *The impact of immigrants on socioeconomic growth in Tanzania : a case of Karagwe district. (Doctoral dissertation).* The University of Dodoma.
Muthayya, S., Sugimoto, J. D., Montgomery, S., & Maberly, G. F. (2014). An overview of global rice production, supply, trade, and consumption. *Annals of the New York Academy of Sciences*, 1324(1), 7-14. https://doi.org/10.1111/nyas.12540
Nasrin, S., Lodin, J. B., Jirström, M., Holmquist, B., Djurfeldt, A. A., & Djurfeldt, G. (2015). Drivers of rice production: Evidence from five Sub-Saharan African countries. *Agriculture and Food Security, 4, 1-19* . https://doi.org/10.1186/s40066-015-0032-6
Ngaiza, R. (2012). Ministry of Agriculture Food Security and Cooperatives FAO-University of Nairobi. In *Regional Workshop on an Integrated Policy Approach to Commercializing Smallholder Maiza Production*.
Nkwabi, J., Sharma, R., Dev, K., & Sharma, S. (2021). Challenges for small scale rice farmers-A case study from Tanzania. *Indian Journals 66*(1), 149–155. https://doi.org/ 10.46852/0424-2513.1.2021.19
Ochieng, N. A., & Ochieng, N. A. (2020). Are youth moving towards or away from agriculture. *Analysis of farm and Non-Farm Occupational Choices among Youth in Rural Tanzania* https://www.repoa.or.tz/wp-content/uploads/2021/02/Youth-Occupational-Choice.pdf
Onyiriuba, L., Okoro, E. U. O., & Ibe, G. I. (2020). Strategic government policies on agricultural financing in African emerging markets. *Agricultural Finance Review*, *80*(4), 563-588. https://doi.org/10.1108/AFR-01-2020-0013
Price, R. (2019). Youth employment needs in Nigeria. *K4D Helpdesk Report 691*, 1-15.
Rota A., Chakrabarti S., & Sperandini S. (2012). Women and pastoralism. *International Fund for Agricultural Development (IFAD)*, *Livestock Thematic Papers Tools for project design*, 1–20.

https://www.ifad.org/en /web/ knowledge/publication/asset/39396024
Rowhani, P., Lobell, D. B., Linderman, M., & Ramankutty, N. (2011). Climate variability and crop production in Tanzania. *Agricultural and Forest Meteorology*, 151(4), 449-460. https://doi.org/10.1016/j.agrformet.2010.12.002
Shi, X. (2020). Heterogeneous effects of rural-urban migration on agricultural productivity Evidence from China. *China Agricultural Economic Review, 10*(3), 482-497*.* https://doi.org/10.1108/CAER-10-2017-0193
Simbila, G. K. (2022). *Migration , Poverty , and Well-Being in Tanzania* https://iariw.org/wp-content/uploads/2022/08/Simbila-IARIW-2022.pdf
Thet, K. K. (2014). Pull and push factors of migration : A case study in the urban area of Monywa township, Myanmar. *News from the World of Statistics, 1*(24), 1-14. http://www. worldofstatistics.org/files/2014/03/March-24-2014.pdf
Uakarn, C. (2021). Sample size estimation using yamane and cochran and krejcie and morgan and green formulas and cohen statistical power analysis by g*power and comparisons. *Apheit Int J, 10*(2), 76-88.
URT. (2021). National Five Year Development Plan 2021/22 - 2025/26 The Tanzania Development Vision 2025.
URT. (2014). Review of food and agricultural policies in the United Republic of Tanzania. In MAFAP country report series. Rome, Italy: FAO.
URT. (2016a). *National five year development "Nurturing Industrialization for Economic Transformation and Human Development".* 182.
URT. (2016b). National strategy for youth involvement in agriculture. *Ministry of Agriculture* Van Ittersum, M. K., Cassman, K. G., Grassini, P., Wolf, J., Tittonell, P., & Hochman, Z. (2013). Yield gap analysis with local to global relevance-A review. *Field Crops Research*, *143*, 4-17. https://doi.org/10.1016/j.fcr.2012.09.009

Policy Brief

Basing on what the study discovered, the study will increase knowledge on the importance of youth participation in rice production as a vital for improving food security and alleviating rural poverty (both income and food poverty). The study will increase knowledge to the extent that, it be useful by policy makers to design policies that accommodate rural youths to remain in rural areas and engage in production for better livelihood. The article will be resourceful to Planners and Researchers in their various academic, economic, policy issues in making strategies that will attract youth to remain in rural areas and engage in farming activities.

The article will help the government, NGOs, and other agencies to find appropriate strategies of reducing rural urban movement of youths to assure labour supply and constant workforce for farming in rural areas. The government and agencies will address the both pros and cons of rural urban migration at both areas (area of destination and domicile). The article will challenge the government and point the impact of rural urban migration of youth to the domicile areas. This will help the government and other professionals to transform agriculture from tradition to modern agriculture with well arrangements of irrigation system which will enable farmers to cultivate all the time without depending on weather and rainfall. The Professionals will advise the societies to change their bad perception that farming is a dirty job, it is a job for unprofessional people with low rewards. This will discourage rural-urban migration of youth while enabling them to stay and engage in rice production.

The article will help the academicians to know that, the decision to migrate is determined by four categories of factors; these include factors associated with the area of origin; factors related to the area of destination; factors related to the intervening obstacles (such as distance, physical obstacles, immigration laws and so on) and personal factors. Migration tends to take place within the well-defined streams, from specific places at the origin to exact places at the terminals or destination, not only because chances tend to be extremely localized but also because the flow of knowledge back from destination accelerates the channel for future migrants.

The article will help the professionals to know the determinants force someone to move, due to diverse reasons, to leave that place and go to some other parts. These determinants are Push and Pull factors; Push factors include non-availability of enough livelihood opportunities, poverty, rapid population growth that surpasses available resources, “Primitive" or “poor” living conditions, desertification, famines or droughts, fear of political persecution, poor healthcare, loss of wealth, and natural disasters. The push factors are factors which force someone to move, due to diverse reasons, to leave that place and go to some other parts. The common push factors are low production, joblessness and underdevelopment, poor economic situations, lack of chances for development or improvement, exhaustion of natural resources and natural catastrophes. Unavailability of alternative sources of income in rural places is another important factor for human migration.

Pull factors are exactly the opposite of push factors they attract people to a certain location. Typical examples of pull factors of a place are more job opportunities and better living conditions; easy availability of land for settling and agriculture, political and/or religious freedom, superior education and welfare systems, better transportation and communication facilities, better healthcare system and stress-free environment attractive, and security. Human migration is due to globalization, financial crises, civil wars, fights, political variability and other social dissimilarity, development of the market economy, gender discrimination.