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Diversification and Farm Household Welfare in Grasslands 'A' Farm, Kwekwe District, Zimbabwe

Nyathi Douglas¹, Beremauro Reason², Tonderai Takavarasha³ and Joram Ndlovu⁴

^{1,4}University of KwaZulu Natal, School of Social Sciences, Durban, South Africa
 ²University of Witwatersrand, Johannesburg, South Africa
 ³Lupane State University, Department of Development Studies Bulawayo, Zimbabwe

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ABSTRACT The problem of poverty and how to reduce it remains the most pressing dilemma in the rural development lexicon of most developing countries. Livelihoods diversification has been seen as one of the ways in which households seek to address their vulnerability to poverty and other shocks. This study explores the determinants and household welfare implications of livelihood diversification in newly resettled areas of Zimbabwe. Specifically, the study was done in Grasslands 'A' farm in Kwekwe District. Data was collected from 178 household heads using in-depth interviews, focus group discussions and key informants. The study reveals that market gardening, gold panning, firewood selling, casual labour and temporary employment are the major livelihood options pursued by farmers in the study area as part of their livelihood diversification attempts. Furthermore, resettled farmers have not been confined to only crop farming, rather they have embraced on-farm and off-farm livelihood activities. As diversification is a reality in newly resettled areas, there is need to support the engaged livelihoods together with crop farming. The study recommends the security of tenure through issuing of title deeds, the funding of small cooperative gardens development and expansion of markets for garden produce.

INTRODUCTION

Livelihood diversification for rural dwellers has become a common strategy for rural farm households across the developing world as agriculture (the traditional farm household livelihood activity) faces diverse threats (Kumar and Srivastava 2017) and also as rural incomes become under pressure (Barrett et al. 2001). Livelihood diversification is a process involving the maintenance and continuous variation of a highly diverse portfolio of activities over time in order to secure survival and improve standards of living (Mathebula et al. 2017). Consequently, it has become a subject of conceptual and policybased research and at the forefront in discussions for rural poverty alleviation and food security in low income developing countries (Onunka and Olumba 2017). Despite the agrarianisation (Scoones et al. 2012) of rural development and poverty reduction policies, farmers particularly in sub-Saharan Africa, are gradually being divorced from farming activities as they embrace a diverse portfolio of both non-farm and on-farm activities in their struggle to construct livelihoods and sustain lives (Onunka and Olumba 2017). Burgeoning literature reveals that agriculture has suffered the brunt of neglect in many rural communities (also see Sultana and

Lu 2017; Idiake-Ochei and Okoh 2017) and the causal factors for livelihood diversification vary across regions. As a result of the much-contested Zimbabwe's Fast Track Land Reform and Resettlement Programme (FTLRRP), a radical transformation of land ownership and agrarian structures (Njaya 2014) was experienced in the country. The agrarian nature of the reform process was viewed by many as a straight-jacket approach which failed to capture the vulnerability context, trends, shocks, seasonality (Department for International Development 1999) [DFID] and incentives offered by other non-farm activities (Barrett et al. 2001; Mathebula et al. 2017). Land reforms have been seen as a means for eradication of rural poverty, increasing food stocks for household consumption by providing sources of income and insurance against price shocks (Jacobs 2013). Drawing evidence from Grasslands 'A' farm in Kwekwe District, the researchers argue that newly resettled farmers in Zimbabwe have not been confined to crop production alone but there have been a number of 'push and pull' factors that have inspired farm households to engage on other on-farm and nonfarm livelihood activities. Therefore, livelihood diversification of the rural dwellers has become a subject of conceptual and policy-based research and at the forefront in discussions for

rural poverty alleviation and food security in low income developing countries (Onunka and Olumba 2017). In simple terms, vulnerability to shocks, trends and seasonal variations has been seen as the greatest threat to sustainable rural livelihoods. As rural households attempt to manage vulnerability, they engage in various livelihood diversification strategies such as agricultural intensification/extensification, national and international migration and this influenced by institutional and structural factors (Chimhowu and Hulme 2006).

Objectives

Estimation by the W (2008) reveals that agriculture provides livelihoods to about 1.3 billion smallholders and landless workers. The bulk of rural livelihood activities are land-based (Simane et al. 2017) therefore, a comprehensive and well administered land redistribution process can unlock livelihood opportunities for rural populations. Jacobs (2013) contends that land reforms can strengthen the rural poor and transform them into a new class of smallholders with economic and political stakes in a capitalist or social democratic societies. In an effort to address poverty and inequalities, the government of Zimbabwe pursued agrarian reforms which were fraught with contestation and condemnation. Although, it was believed that the land redistribution exercise would serve as an engine to increase incomes and empower poorer peasants these benefits have not been realised in Grasslands 'A' farm in Kwekwe District. The main objectives of the study were to:

- Discuss the variety of sources and activities of rural people make a living and whether their livelihood is secure or vulnerable over time.
- Examine the extent to which farm households deploy livelihood capitals and recover from shocks and stress within their environment.
- Analyse the effect of livelihood diversification, on the food security status of the rural farming households.
- Inform the policy makers in designing appropriate food security mitigation policies in rural Zimbabwe.
- Contribute to literature on livelihood diversification and farm household welfare of resettled farmers in Zimbabwe.

METHODOLOGY

Merriam (2009.) argues that a qualitative research is important in gaining understanding of underlying reasons, opinions, and motivations to a particular research problem. Given the qualitative nature of the study, a case study was used to examine subjects in their natural setting and for employing multiple methods of data collection (Yin 2014). A qualitative approach allowed for an exploration of a range of livelihood experiences in Grasslands 'A' farm. The population for this study was made up of 178 household heads from farms in Grasslands 'A'. A purposive sampling was used in selecting the participants. These households entailed both male and female headed households and there were no cases of child-headed households. In-depth interviews and a focus group discussion were used as data collection techniques applied in the study. Prior to entering the Grasslands community, permission was sought from the Local Authority (Zibagwe Rural District Council), the Local Government and the War Veterans Offices. These respective institutions provided with access letters and this made the research to be easily accepted by the community. Before engaging the selected households for interviews, participants were asked to sign an informed consent form.

RESULTS

The study revealed a number of push and pull factors. The motives for "diversification are usually survival-led and opportunity led diversification. Survival-led diversification is mainly driven by push factors and occurs when poorer rural households engage in low return activities to ensure survival, reduce vulnerability or avoid falling deeper into poverty. Opportunity-led diversification is mainly driven by pull factors and it occurs when wealthier rural households engage in high-return non-farm activities, with accumulation objectives, in order to increase household income by maximising returns from their assets" (Mathebula et al. 2017). In this study the push factors included, low producer prices from the sole buyer of grains (the Grain Marketing Board) and not paying on time, erratic climatic changes and lack of knowledge to adapt to climatic conditions, lack of farm inputs, lack of farm productive assets and lack of farming knowledge. Similarly, Takane and Gono (2017) argue that many poor smallholders were unable to overcome entry to barriers into highly remunerative non-farm activities, leaving them with fewer remunerative activities. Therefore, the pull factors included; better returns from gold panning, ready market for firewood, proximity to water sources and proximity to markets for garden produce.

Overview of the Characteristics of the Sample: Demographics

In exploring the concept of livelihood diversification, a household has normally become a unit of analysis (Ellis 1998; Ellis et al. 2003). The unit of analysis in a study is the level of abstraction in which the researcher looks for variability and this can be at an individual, group, household and community level (Bernard and Ryan 2010). This study conceptualised a household as a unit of analysis in exploring livelihoods pursued by newly resettled farmers, determinants of household livelihood diversification, and implications of livelihood diversification on the household economy and areas of intervention. Demographic characteristics which were of major interest are age, sex, household size, household type, education and employment.

Age

The age distribution of respondents ranged from 19 years and above (see Table 1) with the age group 19-35 having 11.8 percent respondents, 36-49 had 17.6 percent and those who were above 50 were 70 percent. It emanated from the interviews that most household heads were above the age of 50 and from the elderly population, males were older than female. The dominance of an elderly population in land ownership in Grasslands 'A' farm concurs with a contention by Moyo (2011) that mostly ZANU-PF cronies benefited from the Fast Track Land Reform Programme (FTLRP). During the inception of the FTLP, war veterans and security services members were the renowned ZANU-PF elites

Table 1: Age distribution

and the war veterans spearheaded the land reform process (Moyo 2004). The dominance of these political cronies saw an exclusion of the youths and women in accessing land in Grasslands 'A'. The youths had no liberation war credentials and few elderly women had participated in the liberation struggle which was a requisite in accessing land hence many women and the youth were shut out of the programme. The few youths, 11.8 percent, who own land in Grasslands 'A' revealed that they had inherited the land after the death of their parents.

Sex

Most of the respondents were females with 58.8 percent and males were 41.2 percent. Table 2 presents a categorisation of respondents to in-depth interviews according to their sex. Females who participated in the interviews outnumbered males and it emanated from the respondents that most men had temporarily migrated to Kwekwe town in search of temporary employment (piece jobs). This accounted for a higher percentage of female respondents. Female dominance during the time of the study authenticates the notion that women play a key role in subsistence agriculture in Zimbabwe. As noted by the Human Rights Watch (2003), eighty-six percent of women in Africa depend on the land for their livelihoods yet the paradox is these women do not own land and they depend on men. Property in most African societies is held in a man's name and passed partrilineally within the group (FAO 2002). The study obtained that most women in Grasslands 'A' are dependent on land for the construction of livelihoods of themselves and their families' as revealed by a greater proportion of women respondents staying on the farm. An analysis by FAO (2002) concurs with what was obtained from the study. Property, in this case land, in Grasslands 'A' is held in a man's name despite the fact that most men were reported to be working in towns and women being the ones staying and working in the fields.

Table 2: Sex distribution

Age group (in years)	Frequency	Percentage	
19-35	2	11.8	
36-49	3	17.6	
Above 50	12	70.6	
Total	17	100.0	

Sex	Percentage	
Males Females	41.2 58.8	
Total	100.0	

Household Size

A total of 15 respondents based on house hold size were interviewed. Table 3 shows the number of household members of respondents to the in-depth interviews and two key informant interviews with traditional leadership. Based on the above table, 40 percent of the respondents interviewed were from a household with more than 6 members and 26.7 percent were from a household with more than 5 members (see Table 3). All households which participated in the research process were composed of a single family unit. It emerged from the research that other household members of small family units (households with 2-4 members) had permanently migrated to urban areas where they are employed.

Table 3: Household size distribution	Table	3:	Household	size	distribution
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Number of members	Respondents	Percentage	
2	1	6.7	
3	2	13.3	
4	2	13.3	
5	4	26.7	
More than 6	6	40	
Total	15	100.0	

Household Type

Grasslands 'A' farm is comprised of younger and older households. A younger household in the study refers to a household with a head between the ages 19-35 and an older household refers to a household with a head above the age of 35 (Table 4). It emanated from a key informant that landholders in Grasslands 'A' are war veterans, ex-combatants and land seekers from neighbouring areas and most of these people are above the age of 35. This accounted for a larger proportion of older household heads being engaged. This land ownership format reinforces a conclusion drawn by Moyo (2011) that the beneficiaries of Zimbabwe's land reform programmes were mainly ZANU-PF elites and political cronies. It also emerged from younger household

Table 4: Younger and older households

Household type	Percentage	
Younger Older	33 67	
Total	100	

heads respondents that they had inherited the plots after the death of their parents.

Education

There is not much variation in education levels of household heads and age appeared to be the determinant of household head educational attainment. It emerged from respondents that at least all household heads attained some level of education. Most of the respondents above the age of 50 attained primary level education only and informed that their failure to further with education was a result of participating in the liberation struggle (Table 5). In terms of tertiary education, one household head responded that one of its household members attained a degree from the National University of Science and Technology. Another head also revealed that one household member attained a National Diploma from Kwekwe Polytechnic College.

Table 5: Education levels of households

Level of education	Percentage
No education	0
Primary education	20
Secondary education	67
Tertiary education	13
Total	100

Employment

The key informants informed that the majority of household heads in Grasslands 'A' farm were unemployed as a result of retirement (47%), retrenchment (27%) and some never worked (13%) and only (13%) were employed (Table 6). This was authenticated after carrying out indepth interviews with household heads where the majority indicated that they retired from security forces, government departments and others from ZISCO Steel Company. It also emanat-

Table	6:	Empl	loyment	status
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Employment status	Percentage		
Employed	13		
Retrenched	27		
Retired	47		
Never worked	13		
Total	100		

ed from other unemployed heads that they had faced retrenchment from ZIMASCO Company as it was scaling down operations.

Profiling the Area under Study

Grasslands 'A' Residents

Beneficiary selection to Zimbabwe's land reform programmes has been central to debates in as far as land redistribution is concerned. These debates emanate from what group of people is worthy beneficiaries (Bernstein 2004). As revealed by study findings, Grasslands 'A' is comprised of people of varying backgrounds, tribes and origins. One of the key informants revealed that the selection criterion of beneficiaries was based on the waiting list from the Local Government. The list constituted of people from across many districts in Midlands Province. This interview with the key informant also revealed that people in the area are of mixed tribes. The Local Government beneficiary narrative below shows the differing backgrounds, tribes and origins of farmers in Grasslands 'A':

Mrs Banya (not real name) has been working at the Local Government offices for more than 15 years and she gave her narration of Fast-Track Land Reform Programme beneficiary criterion in Kwekwe District. She noted that people who benefited are the ones who were in the waiting list at Local Government offices. People were drawn from various parts of Midlands Province. There are Ndebele speaking people who came from communal areas under the jurisdiction of Chief Malisa and Chief Ntabeni in Kwekwe District. There are also Shona speaking people drawn from Gokwe, Mvuma and Kadoma districts while others are from a communal area under Chief Samambwa in Kwekwe district. From this group of beneficiaries, some are former ZISCO Steel Company employees, others are former and current employees from different government sectors and others were peasant farmers from communal areas. These people were allocated 30 hectare pieces of land under the A1 model.

Another key informant interview revealed another dimension of the beneficiary criterion in Grasslands 'A'. The informant revealed a criteria biased towards alignment to the ZANU-PF party and the liberation struggle credentials. The beneficiaries should have undergone a vetting process carried out by the District Lands Committee. This committee is comprised of different departments which are; Local Government, Local Authority, War Veterans Association, ZANU-Pf office, Zimbabwe Republic Police, President's Office, Ministry of Lands and Resettlement and the Zimbabwe National Army. It emerged from the respondent that each department had to bring its beneficiary names and the committee deliberate on them. Below is a Narrative from a War Veteran:

Mr Chiga works at the War Veterans Office and he is a war veteran. He has attended numerous District Lands Committee meetings where issues to do with land redistribution, land ownership and land disputes are deliberated and resolved. Mr Chiga noted that the meeting is attended by representatives from various departments and these are; the District Administrator, Local Chiefs, Rural Council Chief Executive Officer, District Lands Officer, ZANU-Pf representative, President's Office representative, Zimbabwe Republic Police officer and the Zimbabwe National Army officer. The committee compile names of people to acquire land and approve who should benefit. Each department is given an opportunity to present names of its intended beneficiaries.

Livelihood Portfolios

Rural households combine a diverse set on incomes generating and social activities and construct a portfolio of livelihood activities to meet and possible, to enhance better livelihood outcomes (Khatiwada et al. 2017). The present study show that the major livelihoods options pursued by farmers in Grasslands 'A' farm are: crop farming, gardening, small-scale gold mining, firewood selling, casual labour and temporary employment and reliance on pension funds. An engagement with selected household heads revealed that crop farming is still upheld as a livelihood activity in the area, though not as dominant as it used to be during the initial years of resettlement. Furthermore, farmers from Grasslands 'A' farm used to supply a considerable amount of maize to Kwekwe Grain Marketing Board (GMB), but due to the reduction in the scale of maize production, supply has also declined. The above results show that agrarianbased activities are critical to the livelihood strategies of rural households. Thus, crop farming remains visible in newly resettled communities for intra-household food consumption, for instance, to enhance food security and to safeguard the earned land parcels. This realisation has led to a mixed-bag/ diversification picture of rural households' livelihood portfolios as they try to augment seasonal agricultural produce (Tombindo and Chirau 2017).

Market Gardening

Household strategies comprise different support sources and activities at different times of the year and these include gardening, use of common pool resources, share-rearing livestock and family splitting (Tombindo and Chirau 2017). Gardening was found to be one of major livelihood activity which is being embraced by newly resettled farmers in Grasslands 'A' as they downscale crop cultivation. Up-taking food gardening improves household food availability and also provides a long term solution to the dietary diversity of people in poor communities (UNDP 1996).

It emerged from an interview engaging a traditional leader that:

Pama 30 hectares atakapiwa nehurumende, varimi varikungokwanisa kurima ndima diki. (On 30 hectare land allocated to us by government, farmers are only ploughing small pieces of land).

Another household head Mr Kombo (not real name) who was engaged in an in-depth interview reiterated that he was still practising crop farming though at a smaller scale comparing to the initial period when they acquired land:

Haa kurima ndinorima hangu asi zvekungodya nemhuri yangu. (Yes I am still growing crops, but only for household consumption).

A variety of vegetables and beans are grown for household subsistence consumption and to generate extra household income. The study shows that growing and selling vegetables has high returns compared to maize production in the area hence households with access to water sources embrace gardening. A household who has more than five years gardening revealed that:

Tatove ne5 years tichiita zvegadheni kungobva kudzoka kwakaita mukomana kuchikoro kuNUST (We now have five years doing gardening since the return of our son from National University of Science and Technology). However, low productivity in farming and limited accessibility to non-farm income sources have been increasing vulnerability of these people who are often poor and deprived with minimum standard of life (Khatiwada et al. 2017).

Gold Panning

One non-farm activity that has been overlooked is artisanal or small-scale gold mining, (Banchirigah and Hilson 2009) and the activity absorbs the bulk of labour capital in areas close to gold ore deposits such as Grasslands 'A' farm. In this study, artisanal or small-scale mining is referred as gold panning. This activity of gold panning (*kukorokoza*), has become another livelihood and source of income for Grasslands 'A' households. These household members migrate to Riverlea farm and Bell mine which borders Grasslands 'A' farm to exploit gold.

Mr Chaka (not real name) revealed that:

"Tinotokorokoza goridhe kuRiverlea neku-Bell mine totengesa" (We do gold panning in Riverlea and Bell mine and sell).

The study reveals that gold panning is sustaining lives of various households in the area as returns are realised immediately after the activity and many young people have been absorbed into the livelihood activity. Despite the fact that gold panning is labour intensive, farmers pursue it due to the few barriers to entry and quick returns compared to other livelihood alternatives such as petty trade. Most rural households' safety nets reflect elements of mechanical solidarity where social relations/resources are used to make ends meet (Tombindo and Chirau 2017).

Selling Firewood

Selling of firewood emerged as a complementary livelihood activity pursued due to unreliable and or failing crop farming activity in newly resettled areas of Zimbabwe. There is a general agreement that an increase in natural resource exploitation is a result of increasing rural populations and diminishing agricultural productivity. Hence, households in Grasslands 'A' farm have resorted to harvesting small forests in under-utilised farms to extract firewood. However, the sour relationship between Environmental Management Agency (EMA) and households selling firewood makes it difficult for such households to pursue firewood selling as a freely embraced livelihood alternative. The informant highlighted that:

Maticket akawanda eEMA arikupiwa varimi vekuGrasslands. (The bulky of Environmental Management Argency (EMA) fine tickets have been issued to Grasslands 'A' farmers).

Off-farm activities are sometimes locally available in rural areas as households make use of their surroundings natural resources to survive (Tombindo and Chirau 2017). Mr Moyo who earns a living from firewood selling pointed out that:

Ndinototema huni ndichitengesa kuti ndiwane kudya kwemhuri, asi ndikabatwa neE-MA ndinenge ndashandira mahara. (I cut firewood and sell to get food for the household, but if I got caught by EMA, I will have worked for nothing).

Similarly, in Ghana, the sale of firewood was found to be high because it serves to provide fuel wood for food vending activities near the lake; whilst carpentry and livestock rearing were widespread among communities which were further away rather than those close to the lake (Yamba et al. 2017).

Casual Labour in Commercial Farms

Migration also provides a livelihood diversification avenue through searching for work, markets and various goods and services (Tombindo and Chirau 2017). The study further revealed that female headed and poor households rely on casual labour (*maricho*) in the neighbouring A2 farm (commercial farm) owned by a white farmer. Not every household is into gold panning, firewood selling or gardening. It emerged from a female household head that they live on casual labour (*maricho*) in the neighbouring A2 farm owned by a white farmer. Mrs Svari (not real name), a key informant in the area also stressed out that:

Kune murungu ariko, akasara, vanhu vanoenda ikoko voshanda mumunda make, vachibhadharwa nechikafu kana mari. (There is a white farmer (A2) close to the area, people go and work in his field and get paid with food or money).

Casual or waged labour was seen as a reliable livelihood option to the poor (without productive assets) as they pointed out that the A2 farmers always have work in their irrigation fields. Similarly, other household heads in Grasslands 'A' farm revealed that other members temporarily migrate to Kwekwe urban to do temporary short time jobs often referred as *piece jobs*. It emanated that casual labour and temporary employment are mainly embraced by households without productive farm assets as the respondents pointed out that they had neither draught power nor scotch carts to pursue activities such as firewood selling and gardening.

Role of Education in Livelihood Diversification

Households from different circumstances diversify their sources of income in order to smoothen consumption and spread risks. Generating diversified incomes was found to be the most essential rural development strategy for the majority of the rural poor. Households with at least a single member who attained tertiary level education revealed their commitment to intensive gardening and directing little time towards crop farming. Mrs Svari, a key informant, revealed that:

Tine government policy yakaita GMB kuti ive nemonopoly yekutenga chibage, you find kuti zvakaaffecter maprice echibarwe, saka varimi vakarima, kuti vatengese chibarwe, hachisi kutengwa nemari yakanaka. (We have a government policy which made GMB enjoy monopoly in buying maize, you find that it affected maize prices, after farming, farmers are not receiving good or reasonable money from the sales).

Though gardening is a livelihood alternative embraced by various households, the scale and levels of production vary due to variances in levels of education. A contacted household head informed that:

Vana tinotovabhadharira chikoro nemari yegarden. (We pay school fees for our children using returns from garden produce).

Households with low levels of education find it difficult to diversify. Similarly, a study by Khatiwada et al. (2017) revealed that households headed by more educated head, having member with skilled development training, having more access to credit, no member with agricultural training, smaller size of land holding, located closer to the road, located closer to the market centre and at a higher elevation were more likely to adopt a business strategy than food grain production.

DISCUSSION

The contribution to livelihoods of economic activities encompass more than just income, as there is a need to consider a wider range of factors such as health, access to goods and services, social relations and food security, especially when measuring progress in development and reduction in poverty (Smith et al. 2017). Thus, household livelihood diversification has varying impacts on the economy and welfare of household. In developing countries, it is increasingly seen as one of the pathways for poverty reduction and economic growth (Mathebula et al. 2017). The available literature reinforces the findings on increased income resulting from increased diversification (see Dose 2007). For instance, Ellis (1998) suggests that livelihood diversification plays a significant role towards enhancing food security at household level by enabling the household to maintain food consumption throughout the year. However, there could be multiple motives which prompt households or individuals to diversify their assets and income-earning activities (Mathebula et al. 2017). In another study, diversified crop livestock system was aimed at spreading risk by reducing cattle off take and adaptation to natural resource competition and insecurity by extensification and evening out consumption (Sultana and Lu 2017). Therefore, further diversification into offfarm activities to spread risk increased livelihood security and opportunities (Majekodunmi et al. 2017). The adopted strategies in diversification of income include non-farm income sources, most importantly those obtained from sources other than unskilled labour. The income derived from off-farm sources plays an important part in ensuring household food security through easing greater access to food. These are associated with increased income and enormous income mobility especially upward earnings mobility (Ayantoye et al. 2017). Households who have diversified livelihoods are food secure since they can direct some of their income towards the purchase of sufficient food supplies. So, diversification decisions seem to be driven to a large extent by desperation rather than new opportunities, in particular with regard to migration (Ayantoye et al. 2017). Pursuance of alternative livelihoods activities is done concurrently with agricultural activities. Their intensity is realised during dry seasons particularly when crop yields are poor. Over reliance on one source of income prevents achievement of economies of scope and increases the risk of destitution. An engagement with key informants and household heads revealed that household livelihood diversification in Grasslands 'A' farm has far reaching impacts within the perimeters of household income improvements. "Non-farm activity is typically positively correlated with income and wealth ... ? (Barrett et al. 2001), increases considerably and, in fact, drives income growth of the poorest, whose income from agriculture stagnates (Ayantoye et al. 2017). These households managed to construct typical rural modern houses built of cement and corrugated iron sheets, to procure productive assets such as mega-tanks for a future intended garden projects and fence their homesteads using barbed wire. Also, in Burkina Faso off farm alternative livelihood activities were predominant in the dry season when agriculture produce is being old and when people have more money and time in their hand (Yamba et al. 2017). Hence, proximity to market areas is considered as an incentive for rural population to engage in non-farm economic activities (Asfaw et al. 2017). However, a study by Sallawu et al. (2016) found that accessibility of credit institution and availability of adequate loan were important factors for the participation of household in non-farm activities (Asfaw et al. 2017). In contrast, those households that have neither access to non-farm activities nor sufficient productive non-labour assets to devote themselves entirely to on-farm agricultural production, typically relied on a low return strategy of complete dependence on the agricultural sector and often find themselves caught in a dynamic stochastic poverty trap (Ayantoye et al. 2017). Hence, the capability of Grasslands 'A' farmers to diversify livelihoods and income sources proved to be a critical survival strategy as it ensured income and reduction in food risks. Poor infrastructure will continue to be a disincentive to farmers diversifying in other activities due to high transaction costs coupled with other constraints such as poor assets base, lack of credit facilities, lack of awareness and training (Avantoye et al. 2017). Education plays an important role in the construction of livelihoods by households. The factor on education corroborates findings from different countries where diversification has become the norm, for example, Khatun and Roy (2012) in West Bengal, Demissie and Legesse

(2013) in Ethiopia, Kangalawe et al. (2008) in Lake Victoria Basin and Rahman and Akter (2014) in Rural Bangladesh. Information centres operating at the block level can provide information to house holds on less time-consuming farming techniques, marketing and opportunities in the non-farm sector (Khan et al. 2017). Many households contacted during the study revealed that livelihood diversification has considerably improved their property and productive assets ownership. It was evident that the type of livelihood activities pursued had a greater influence on the type and extent of assets accumulation.

Other households managed to purchase productive households' assets such as scotch carts and mouldboard ploughs. The study has suggested that to increase farmers' income, policies should focus on the development of livestock sector to motivate them for rearing of animals for commercial purposes (Khan et al. 2017). It was also evident that such newly embraced livelihoods are of greater benefit especially when comparing property and assets ownership with households confined to crop farming. Diversiûcation outside agriculture is mainly wage labour, international and national migration, construction work in local towns, participation in public works and piecework on nearby farms. Therefore, policymakers should do more to support non-farm diversiûcation strategies by recognising the importance of rural-urban connections in fostering adaptation.

CONCLUSION

The Zimbabwean FTLRP has been a subject of contention as to whether it attained agrarian reform, addressed the national land question or led to poverty reduction in the country. With reference to the Sustainable Livelihoods Framework, newly resettled farmers were provided with land, a natural capital, and received little to no financial, human, physical and social assets to enable them to construct sustainable livelihoods. Subsequently, these farmers have diversified to off-farm and on-farm livelihood activities in order to survive and improve their lives. The study interrogated the determinants of household livelihood diversification in newly resettled farmers in Zimbabwe. Grasslands 'A' farm presented a case study to interrogate questions posed by the study. The findings reveal that livelihood assets determine the choice of diversification strategies of newly resettled farmers. Low producer prices, late payments by GMB, climatic changes, poor adaptation skills and knowledge to climate change among farmers and lack of farm inputs push Grasslands 'A' farmers to diversify their livelihoods. Higher income returns from gold panning, proximity to a reliable source of water, proximity to markets for garden produce and a ready market for firewood lure farmers to embrace other livelihood activities other than crop farming. The availability of facilities and infrastructure contributes to the possibility of households to diversify their livelihood. Considering the drop in crop production within and among newly resettled farmers in Zimbabwe, the research recommends the national government to urgently intervene with vibrant agricultural policies to support small-holder crop production. Access to credit facility, affordability and training can either help or hinder their living. Through the Ministry of Lands and Rural Resettlement, the government should avail title deeds to these new land holders so that they can have collateral to access lines of credits. This is expected to enhance the financial base of farmers to invest in crop production. The government of Zimbabwe should also liberalise the market for grains by reframing of the policy which makes GMB enjoys monopoly in buying grains so as to pave way to competitive buyers. This will ensure improved producer prices and resuscitate crop farming in the country.

RECOMMENDATIONS

As diversification has become a norm, there is need for acceptance, tolerance and support for the newly embraced livelihood activities. Firewood selling should be legalised through issuing out licenses to households pursuing the activity. The research recommends that the Forestry Commission in collaboration with the EMA and Rural District Councils issue out these firewood selling licenses. Gold panning should be legalized and supported. Those participating in the activity must be formally registered with the Ministry of Mines and Minerals Development and the registration process should be less bureaucratic and less cumbersome.

In view of the proximity of Grasslands 'A' farm and other new resettlement areas across Zimbabwe to reliable water sources, the Ministry of Agriculture, Mechanisation and Irrigation

Engineering must support irrigation development. In the face of climatic changes, the study recommends the development of small scale irrigation (in form of gardening) to large scale irrigation as rainfalls have become unreliable. This will go a long way in enhancing national food security and rural development. The delivery of formal and informal education and extension services should be strengthened to enable the farmers to utilize their full capacity and consequently earn more. The research also advocates for scaling up of more comprehensive trainings and information dissemination on ways to curb, adapt and cope with climate change among small-holder farmers. To areas with access to reliable sources of water, the research recommends the electrification of these areas through the Rural Electrification programme. This should be done to support and boost irrigation activities. Rural electrification will also mark the introduction of new livelihood activities to complement crop farming and other existing ones. Further recommendation is given on a deeper exploration of the implications of livelihood diversification on household economies of women and child-headed households.

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