



NGOs' interventions, sustainable livelihood, and rural development in Zimbabwe: The case of Gutu district, Mutubuki Chitenderano Association

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Abstract

Not all NGOs are politically oriented, others are development oriented hence justified complementary forces to developing countries' governments. Without NGOs interventions, the Zimbabwean government have been and still struggling to sustain rural livelihoods and rural development due to persistent fiscal deficits. The study sought to evaluate the impact of various NGO (UNDP, Christian Care, Action Faim and Heifer) interventions in Mutubuki Chitenderano Association (ward 36) in Gutu East. Knowledge gaps such as unavailability of research that specifically looks at Gutu whether at district or ward levels and literature on the impact of multiple programme participation together with spill-over effects of NGO interventions is still scant hence provide the rationale for undertaking this study. The study used primary data and descriptive statistics. Results indicated that NGOs play a critical role in complementing the government and each other in rural areas. Interventions resulted in agriculture productivity growth and average income growth, improved sustainability of livelihoods and rural development. Multiple intervention participation proved to be more beneficial than selective participation revealing complementarity of NGOs and generally participants much better off than non-participants. Positive spill-over effects to surrounding villagers also evidenced. Interventions resulted in women empowerment. Results also indicate that NGOs contribute immensely towards the achievement of the Sustainable Development Goals (SDGs).

Keywords: Sustainable Livelihoods; Sustainable Rural Development; Non-Governmental Organisations; spill-over effects; Sustainable Development Goals

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1. Introduction

The gap between urban and rural development, livelihoods and access to opportunities in Zimbabwe is too wide. This leads to what is appropriately characterized as the rural urban dichotomy (Enyioko, 2012). The rural areas are generally neglected when it comes to development projects and infrastructure which is the main push factor for rural to urban migration. As a result of rural to urban migration mainly of the economically active population, the majority of rural areas in many developing countries (Zimbabwe) have become less attractive for social and economic investments due to the dominance of the economically inactive population (pensioners).

Non-governmental organisations (NGOs) are playing a significant role in the development of rural and marginalised farming areas where many governments of developing countries have been and are failing to cater for due to meagre financial resources and chronic budget deficits which leave less than enough for the rural populace hence national cake is skewed towards the urban populace. The secret behind the success of NGO interventions is their direct involvement in projects and activities together with close monitoring and evaluation which lacks much on state interventions in many developing economies. NGOs have direct contact with the local population leading to better knowledge of local people's circumstances and needs; which enables them to always better reach the poor more effectively and efficiently (Farrington and Amanor, 1991) than state interventions. This cannot be compared to the governments of many developing economies which in many instances can only be visible to the rural people when trying to garner support (campaigning) for an election usually after five years.

However, the perceptions of the role and work of NGOs is generally ambivalent with others perceiving them to be instrumental and complimentary to the governments through their engagement on sustainable development projects and activities while others have a different view that they come to disturb domestic politics through funding opposition parties thereby acting as substitutes to the governments of countries they operate in. On the extreme positive end, they are criticised as overrated actors according to Edwards and Hulme (1996) and Holmen, 2009.

1.1. Sustainable livelihoods

A livelihood is sustainable when it can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base according to Chambers (1993). This refers to continuity in long term of the capacity of a system to reproduce itself. It incorporates a moral obligation on the part of the existing generation where their current way of living should not compromise standard of life of future generations through environmental depletion (Chitongo, 2013). As applied to farming, sustainability is achieving a steady rise in productivity overtime through the ability to meet economic effectiveness and efficiency (minimisation of input use to generate maximum output) together with the maintenance of the long term productivity of the natural resources base.

1.2. Rural development

According to Olayide et al. (1981), rural development is a means for the provision of basic amenities, infrastructure, improved agriculture productivity and extension services and employment generation for rural dwellers. It is a strategy designed to improve the economic and social conditions of rural people. It should however result in improving living standards of low-income rural and marginalised poor together with making the process self-sustaining (Lele, 1975). The main objectives of rural development does not primarily relate to economic development or just an increase in income and or production solely for the rural population. Increasing rural production plays a substantial role in national output that is producing surplus of food for the urban and raw materials for the manufacturing sector. Also, increasing rural productivity contribute immensely on export promotion thereby improving the trade balance at the same reducing government expenditure on social protection.

1.3. Sustainable development

Sustainable development is then defined as “development that meet the needs of the present generation without compromising the ability of future generations to meet their own needs” (United Nations General Assembly, 1987) that is linking issues of economic development and environmental stability. Sustainable development aims to maintain economic development whilst protecting the long-term value of the environment despite the possibility of trade-offs between environmental sustainability and economic development for the attainment of market equilibrium. Pigou (1920) noted that the presence of incidental and uncharged services act as a barrier to achieving equilibrium in the market exhibiting a divergence between marginal private costs and benefits and marginal social costs and benefits leading to “externalities”. These externalities can be negative or positive which links well with the context of this study through evaluating the spillover effects of NGO interventions on the sustainability of livelihoods and rural development.

Given the plethora of challenges (shortage of clean and adequate water and sanitation, unacceptably high rates of poverty, poor access to socio-economic services, infant mortality rate, malnutrition and disease prevalence, lower enrolment of children in school and dilapidated rural inherited infrastructure such as roads, clinics and schools) facing rural dwellers in Zimbabwe, rural development need to be given considerable attention in development policy framework. However for the Zimbabwean government to be able to satisfy the basic needs of all citizens including the marginalised rural people becomes very difficult given the persistent budget deficits and public debt some of which are more binding meaning there is a gap where NGOs should be given the opportunity to fill thereby complimenting government efforts towards satisfying the rural needs.

1.4. NGOS in Mutubuki Chitenderano association

Followings are NGOs in Mutubuki Chitenderano association

1- United Nations Development Programme:

- Horticultural Project (1999)-
- Rural electrification (from 2002)
- Weigh Dam (1999)
- Wetland (from 1999)
- Plantation agriculture (from 1999)
- Heifer (from 2002)
- Gully reclamation (from 1999)
- Bee keeping (from 2001)
- Clinic construction (from 2003)

2- Christian care (from 2005)

3- Action Contrella Faim (from 2008)

1.5. General objective

To assess the role played by NGOs on sustainable livelihoods and sustainable rural development in Mutubuki Chitenderano Association in ward 36 (Gutu East).

1.6. Specific Objectives

- To identify the NGO Interventions in Mutubuki Chitenderano (ward 36) of Gutu district.
- To assess people's access to livelihood assets due to NGO interventions through the different programmes.
- To examine the spill over effects of interventions on sustainable livelihoods and sustainable rural development.
- To evaluate the impact of multiple participation of households in various interventions in the area.
- To evaluate the contribution of NGOs to women empowerment and participation.
- To assess the contribution of NGOs to SDGs

1.7. Justification of the study

Gutu district specifically Mutubuki Chitenderano Association has been involved in various rural development interventions and projects implemented by NGOs for a long time. Knowledge gaps, for example, the unavailability of a research that specifically looks at Gutu whether at district, ward or village level, provide the rationale for undertaking this study. Much research is centred on the evaluation of one NGO to development and livelihoods with little attention being paid to the link or relationship of the interventions as far as rural livelihoods and development sustainability is concerned that can be evaluated through multiple participation of households on different interventions. Also not much attention has been paid to the possible

spill over effects of NGO interventions to areas surrounding the specific areas of interventions. The study differs from the majority in this area due to its main focus, scope and area specificity. Gutu district is among the biggest native reserves created during the colonial period making it is very difficult for one to study the whole district due to time and resources limitations which also led to the limiting of the study focus to cover a section of the whole ward (only five villages of ward 36).

2. Study area

The Study was carried out in Gutu East District ward 36 which is in Masvingo Province. Gutu town is situated 93km from the provincial town of Masvingo to the North Eastern direction. Mutubuki Chitenderano Association is also situated to the East of Gutu town about 85km and the district is bordered by Buhera to the North and Eastern sides, Bikita to the south and Masvingo to the western side. Gutu district like the rest of the province lies within the natural farming region 5 in Zimbabwe with low rainfall ranging between 500mm and 750mm per annum and two distinct seasons which are a cold and dry winter and a hot and wet summer. The most recent or latest population census in Zimbabwe which was carried out in 2013 reflects that Gutu has a total population of 203 083 according to the Zimbabwe Statistical Agency (ZIMSTATS) - National Report Census of 2013. MCA is made up of five well and genealogically connected villagers namely Mutubuki, Njerere, Mudhefi, Bote and Musengiwa of the Gumbo totem under which history proved that the five villages represents the five sons of Mutubuki who divided themselves into five interconnected villages with no distinct boundaries hence households choose a village to belong to and that's where the name Mutubuki Chitenderano was derived where Chitenderano means agreement. Smallholder agriculture is the major livelihood activity but low and erratic rainfall aggravated by climate change expose the community to poor harvest leading to food insecurity.

2.1. Materials and methods

The research was carried out in the district of Gutu during the period 04 to 08 January 2017. It covered ward 36. Data was obtained from households through open ended and face to face interviews with the respondents. Structured and semi-structured interviews were done using questionnaires. In all these methods of collecting data, relevant sampling methods were used to qualify different persons for giving data in question. Purposive sampling was used to target, focal point people such as the Association leadership. 50 households (participants from Mutubuki), 15 households (non-participants from Mutubuki) and 10 headman from the nearby villages (Tokwe, Chivasa, Muchakata, Muzondo, Mundeza, Soro, Mushwayi, Chibhamu, Mudhedye and Mafukidze) making a total sample of 75 households interviewed. Households (participants) and non-participants were selected randomly in the five villages of the association and target sampling for the headman from the surrounding villages to capture the spillover effects of the various interventions within and outside the boundaries of MCA. Data was also obtained from the official records of several departments of the association. During the study period, interviews with key informants Ward Councillor, Projects management team leaders, ARES officers, community health workers, Veterinary officer, were carried out.

Microsoft Excel and Statistical Package for Social Scientist (SPSS) were used for statistical and qualitative data analysis to reveal data trends and patterns. The main limiting fact to data collection was that other key informants have been transferred from ward 36 specifically the government employees like AREX officers and community health workers but have been addressed by just considering historical information together with reliant on the current information.

3. Results presentation and analysis

3.1. Demographic characteristics of respondents

More than half (73%) of the respondents were females and 27% were males. There are more females in the population of the study area where 23% of the couples are not staying together applying the traditional norm where husbands work in towns while the wife and children stays in the village. The majority (60%) of the respondents are between 20 and 60 years which is the economically active age group and which assures the availability of a vibrant labour force dominated by women. On the contrary, the level of economic activity is compromised by other factors such as health status and access to production assets. The size of households varied from household to household from the sample, ranging from 1-8 members where 4 is the average household size.

3.2. Programme achievements

The sustainability of each intervention is covered in greater detail below and the evaluation of the interventions are guided by the benchmarks outlined in Obot (1989) which suggests that rural development achievement could be measured in the areas of roads, water supply, housing, electricity, building of model communities, access to quality education, improved health care delivery and availability of food and agricultural products for the rural settlers and their sustainability.

3.2.1. Horticultural projects-nutritional garden (UNDP)

Fencing material, starting chemicals (pesticides and herbicides) and seeds were funded by the UNDP. The association members provided labour for the construction of the garden. This has seen villagers (participants) being able to grow all sorts of vegetables. Each household/participants own 8 beds (8m* 0.8m) each in its row and common crops are grown in each row. Well organised crop rotation is practiced in the garden with the help of the government through AREX the then AGRITEX. The research discovered that this is a sustainable intervention given that households have always practiced gardening on their own and many households who participated in the garden have acknowledged their ability to access a better and balanced diet together with growth of average incomes. Increases in incomes through selling vegetables to the surrounding communities enhanced their ability to send children to school and meet their medical expenses meaning they are able to recover from both financial, social and health shocks. Threats to sustainability may

come in the form of natural hazards like droughts and floods which cause the siltation of boreholes and the nearby wetland which used to sustain the irrigation needs of the garden. SDGs 1, 2, 3 and 5 are all directly enhanced by the nutrition or horticultural project which have much to do with poverty eradication, food security and nutrition, sustainable agriculture, health promotion and gender equality and women empowerment.

3.2.2. Heifer project (livestock changes)

Households/participants paid an insignificant amount of Zim\$40 for two artificially inseminated heifers and 90 heifers have been provided to the association meaning they managed to supply 45 households at one go and then provided 4 Brahman Bulls. The implementing agents provided start up chemicals and knapsacks for spraying ticks and cure other diseases. Government support was through the Veterinary services.

Households (participants) managed to own the most important, high value and multipurpose livestock category that is cattle and this sustained livelihoods through provision of draught power which may also explain an increase in the average yield by the respondents. Ownership of livestock increases livelihood outcomes in that during drought periods people can sell their livestock hence reducing vulnerability thereby augmenting households' response to financial shocks. The heifer project intervention improved nutrition and health status of participants through the provision of milk. There is also a significant improvement in the cattle breed of the villagers who received the artificially inseminated heifers and the four bulls to serve both the heifers and the already existing (Hard Mashona) traditional breed.

There are significant positive spillover effects to the surrounding communities through the pass on aspect of the project which resulted in other households in all the surrounding villages and beyond like Tokwe, Mafukidze, Muzondo, Muchakata, Chibhamu, Mundeza, Mudhedye, Munyikwa and Makamure receiving the heifers. The same livestock benefits which accrued to the Mutubuki households accrued to those who accessed cattle through pass on. Those villagers who did not benefit directly from the heifer project within the five villages benefited indirectly from the five bulls which ended up improving the cattle breed of many households and even the surrounding villagers.

However other nonparticipants from both inside and outsiders MCA complained against the heifer project especially on the simple aspect of overstocking in the area which others considered as a negative externality through the scramble for grazing land. This intervention directly aided the attainment of SDGs 1, 2 and 3 on poverty eradication, food security, nutrition, health and wellbeing and sustainable agriculture.

3.2.3. Rural electrification (UNDP)

Subsidised by the UNDP (all costs of bringing electricity to the homesteads and townships were met by UNDP) with households meeting the balance of Zim\$3000 by the 2000 for meter boxes and connection fees. Government support was/is through Zimbabwe Electricity Supply Authority (ZESA).

This resulted in the electrification of two townships (Chingombe and Mushwayi) and Chingombe primary and secondary schools together with many (25) households in 2002 with the additional 7 within MCA in 2005 and 5 outside MCA (i.e. from the surrounding villages) excluding the chief Chingombe homestead

electrified by the rural electrification agency (government facility to chiefs) but at less cost since they accessed power from Chingombe township which is a distance of about 1km instead of the 8km be it not the MCA programmes. This have contributed a great deal towards the reduction of firewood demand thereby sustainably contributing towards the degeneration of the natural vegetation taking the area back to its original and less disturbed forests and ecosystems. There is also a significant reduction in deforestation thereby protecting the ozone layer hence little effect of climate change in the area. There are significant positive spill over effects to surrounding villages like Chibhamu and Mudhedye to the north, Mushwayi and Mundeza to the east, Muzondo and Muchakata to the south, Tokwe and Mafukidze to the west which are now accessing electricity from nearby sources at significantly reduced costs. The government also benefited by incurring less cost in electrifying traditional leaders' homesteads where they have only taken it down south from Chingombe (Mutambwi) township only about less than a kilometre rather than the 8km costs if they could have accessed it from Chingombe 2 High school. This generally resulted in significant improvements on household access to livelihood assets together with improvements in household adaptation and reaction to shocks be it health, drought or financial emergencies such as school fees for children. Purchase and ownership of durable goods which includes stoves, fridges and televisions which all contribute greatly towards livelihoods improvements. This intervention directly and or positively influenced the achievement of SDGs 7 and 8 on ensuring access to reliable, affordable and modern energy together with inclusive and sustained growth. The rural electrification also played a significant role in aiding the achievement of SDGs 13 and 15 on combating climate change and its impacts through combating desertification. There are significant improvements in the designs of houses built in MCA where many are striving for the construction of modern houses and electrifiable houses rather than the previously dominant traditional thatched huts which sets the main difference of MCA from many other surrounding villages making it a small modest community often considered by surrounding villagers as an "island of glory".

3.2.4. Weigh dam (UNDP)

Cement, reinforcements and fencing material were provided by UNDP with the association households providing labour with government support through the Natural Resources Board (NRB) as previously called and now Environmental Management Agency (EMA). This was a successful intervention which did not only benefit the households of Mutubuki Chitenderano through the accessibility of water for livestock, brick moulding and irrigation but resulted in positive spill-over effects to surrounding villagers who also accessed water for the same purposes especially Tokwe nearby villagers. However it has been limited due the siltation of the two main upstream rivers and the drying up of the wetland mainly due to the gum-tree plantations upstream.

3.2.5. Wetland (UNDP)

Fencing material (treated poles and barbed wire) provided by UNDP and association households provided labour with government support through the Environmental Management Agency (EMA) the then Natural Resources Board (NRB).

The wetland managed to retain a lot of water during the early years though reduced significantly with the progression of time due to the growth of the gum trees in the gum plantations on the upland and wetland ultimately dried out though other villages rendered the problem to drought. This however resulted in negative effects directly to the Mutubuki Chitenderano households and negative spill over effects to the villagers down-stream. In other words, the gum plantations upstream affected the wetland and the wetland affected the weigh dam then the weigh dam affected the down-stream villages by causing shortages of drinking water for both human and livestock. This then seriously limited both the sustainability of livelihoods and rural development. To some extent the intervention contributed to SDG 15 on protecting, restoring and promoting sustainable use of terrestrial ecosystems and managing forests thereby reducing biodiversity loss.

3.2.6. Plantation agriculture (UNDP)

Both exotic (dominated by eucalyptus) and indigenous tree seedlings provided by UNDP together with the fencing material (treated poles, nails and barbed wire). Labour was provided by the association members with government support through the Environmental Management Agency (EMA).

This however did little benefit to the households only provision of roofing poles hence was also used for revenue generation to the association and enhanced the sustainability of livelihoods since the plantations regenerate after cutting or harvesting meaning they can sustain future generations and increased household incomes for the present and future thereby improving rural livelihoods. However the plantations have done much harm than good through contributing immensely to the siltation of the dam and wetland since the plantations are located upstream. This ultimately resulted in the drying up of wells which have historically managed to sustain through more severe droughts like the 1992 and 2002 but failed on the 2008 and 2015 droughts. This resulted in clean drinking and irrigation water shortages in years of droughts some of which were even not that severe (2015 El-Nino induced drought). This intervention resulted in negative spill-over effects to the surrounding villages who used to access water in Mutubuki during dry seasons and also the other villages downstream (Muchakata and Muzondo villages) suffered more due to their reliance on water from the two rivers passing through Mutubuki village and this was also punctuated with the drying up of boreholes downstream posing serious threats to both human life and health together with livestock. Despite being poorly cited, this intervention contributed immensely on SDGs 13 and 15 on combating climate change and its impacts together with combating desertification, land degradation and biodiversity loss.

3.2.7. Bee keeping

Capacity building and the provision of wood and nails for the first group of 20 households and each started with 10 beehives. New members were capacitated by the pioneers. There are 33 participants but with less than 10 beehives and the average holdings at 4 beehives per household. Participants managed to gain significant income through selling honey which also contributed a lot towards the health of the community since honey to some is considered among the best natural medicines for respiratory problems. This however directly influenced the achievement of SDG 3 on health and nutrition and significantly indirectly influence

SDGs 1 and 2 through increased income from selling honey. In general, the programme did not make significant strides and many beekeepers in the area complained about the unavailability of markets.

3.2.8. Gully reclamation

Capacity building and provision of funds for cement for rip rapping and vetiver grass. Government supported through the ministry of agriculture's AREX officers. The water retention capacity of the fields and the area was significantly improved leading to better yields and Improved food security status of the participants. This directly and positively contributed to SDG 15 through halting and reversing land degradation.

3.2.9. Clinic construction

Building material (mainly cement at the footing stage) funded by UNDP with the community providing labour from brick moulding to the construction itself. Government intervened preliminarily through the ministry of health on supervision of the project so that it conforms to the national health standards i.e. for quality control purposes. This will have significant positive impact on health outcomes of the community when the project is completed. This will aid the achievement of SDG 3 that is ensuring healthy lives in the community. This would also have positive spill over effects to the surrounding communities outside MCA through reduction of travel costs to the oldest Chingombe (Basera) clinic which is about 9km from MCA and other people also currently travelling for more than 20km to Basera clinic from areas like Muchekayaora and Ndisengei so their distance would be reduced by almost half since the clinic in MCA will be less than 10km. The completion of the project will be more beneficial to the community. This intervention however promises to have significant effects on both the MCA villagers and outsiders and would also aid the achievement of SDG 3.

3.3. Conservation farming (Christian Care)

This was introduced by Christian Care and proven to be a successful and sustainable agricultural intervention. Farmers who volunteered to participate were trained, provided with seed and fertilizers for the first season where other successful (hard working) participants ended up calling the CF dhiga udye (dig and eat) while the failures (lazy) converted the dhiga udye to dhiga ufe (dig and die). The training that has been provided in the introductory stage has equipped the beneficiaries with sufficient knowledge and skills to continue practicing the technology on their own. Most of the required inputs, such as mulch, anthill soil, biomass and labour were/are locally available. The lead farmer approach, with technical assistance from AREX ensured that the training and monitoring of new CF participants enhance continuity and sustainability. Already there are large numbers of volunteer farmers who are using their own resources and assisted with technical support from local lead farmers and AREX officers. The main motivation for farmers to carry on is that CF has brought tangible benefits of improved maize yields and soil fertility. To stop the dependency syndrome and ensure sustainability, the earliest participants/beneficiaries of the CF interventions were weaned off to do away with the provision of inputs like seeds. Competition among CF farmers lead to high

maize yields, incomes and better livelihoods. Sustainable agriculture leads to sustainable rural livelihoods to sustainable rural development.

The three pillars of CF are reduced soil disturbance, provision of soil cover and use of crop rotation. CF is centred on the use of planting basins. Beneficiaries are required to dig three thousand basins which have to be filled with manure. CF in general addressed many constraints which were faced by many rural farmers such as lack of draught power which is substituted by the use of hoes in the preparation of planting basins, secondly poor soils magnified by the use of mulch, cow manure and biomass and anthill soil on planting basins result in improved soil fertility, avoided wastage of manure, and reduced erosion and thirdly persistent droughts and low rainfall in Gutu hence basins allow harvesting of rainwater.

CF participants were then competing through Farmer Field Schools (FFS) funded by Christian Care. This is an effective strategy for the generation and dissemination of information and knowledge (capacity building) for community empowerment. This proved to be an alternative and reliable source of farmer support during such a time when the public agricultural extension service providers are facing many challenges in reaching out to farmers effectively. There is also a significant increase in yields of maize promoted by competition among the rural farmers. Prices are received after every harvesting season for the outstanding farmers. Competition led to effective utilisation of the few available scarce farming resources that is enhanced productivity and technical efficiency. This intervention has more benefits as far as SDGs achievement is concerned. SDGs 1, 2, 4, 6, 12 and 13 are directly and positively influenced.

3.5 Health and sanitation (Action Contrella Faim)

They intervened through the Water, Sanitation and Hygiene (WaSH) programme. Provision of clean water was improved through the drilling of 2 boreholes in addition to the 3 drilled by UNDP in 2002 and 25 latrine toilets in the village in 2008 built with the implementing agents providing all building material except bricks and labour (free trained bricklayers). Vulnerability of people to diseases such as cholera, dysentery and typhoid has been reduced due to the significant improvement in hygiene and sanitation leading to better and sustainable livelihoods. This was enhanced through the introduction of the tip tap (tsikamutanda) hands washing technique at the main entrance gate to a household and another one on the road to the toilet for washing hands. The government assisted through the community/environmental health workers in the supervision of the toilet construction together with the general health status of households in the community. SDGs 3 and 6 are directly and positively enhanced through this intervention. This resulted in positive spill-over effects to the surrounding villagers through accessing the clean borehole water.

4. 4. General outcomes of NGO interventions

4.1. Average crop output

Maize (from an average of 300kgs to 800kgs) and general crop and vegetable yields have increased significantly. This could be attributed to CF and the Farmer Field Schools (FFS) which enhanced competition

among farmers. Also gully reclamation played a significant role in boosting moisture retention of the fields. The nutrition gardens also enhanced the output of vegetables like cabbages, onions, tomatoes, potatoes, sweet potatoes, carrots and beans.

4.2. Average income

The interventions have led to an increase in yields which have subsequently resulted in an increase in income. This then means that households are now able to send their children to school, buy food and also meet their medical expenses which in general semblance better livelihoods which are also sustainable. Average incomes of the respondents rose significantly from US\$85 to US\$215. Also the increase in average household income enhanced the accessibility and affordability of better seeds, fertilisers and chemicals which all contributed to higher yields. The increase in average household income also enhanced the indirect moves towards the achievement of other SDGs.

4.3. Nutrition, health, and sanitation

There is a marked improvement in the diet and nutrition of households in the villages enhanced through the nutrition gardens where households are now able to consume almost all sorts of vegetables they grow in the cooperative nutrition garden where standard crop rotations being practiced. Better diet means nutrition enrichment to better health status thereby reducing incidence of health shocks and even if they happen there is also improved positive response to the shocks (sustainability). The response to health related shocks now positively significant on participants through increases in household income hence enhanced access and affordability of household health requirements.

4.4. Access to education

There is a marked increase in access to education in the area enhanced by the NGO interventions. Households in the area have managed to send their children to school where there is a significant difference when compared with the surrounding villages and school enrolment at Chingombe 1 primary and secondary schools is mainly dominated by children from the five villages which constitute about 47% and 33% for primary and secondary schools respectively despite the advantage of the schools being located in the Mutubuki area. Also many households mainly in the five villages have been able to send their children to universities, colleges and training centres through increased household income and assets which all enhance the response to financial shocks. The increase in average agriculture output in the area together with increased household income enhanced affordability of school requirements for the kids and even permitted positive response to financial shocks such as school fees (sustainability). SDG 4 is therefore indirectly enhanced through the increase in average incomes of participants.

4.5. Women empowerment and participation

NGOs promote women empowerment and participation (women-77% of participants in all age groups and men-23% mainly economically inactive pensioners). The most critical human capital in the area is women for they constitute a greater percentage of the directly involved people in all areas of intervention and are also involved in the traditionally male duties. The developments in MCA are much attributed to women participation notably in the nutrition garden and health and sanitation interventions. This aids the attainment of SDG 5 of gender quality and women empowerment.

4.6. Linkages of various interventions

The average income of households who participated in all interventions increased significantly and more than that of households who participated in one or few interventions. Also since participation (treatment) was/is voluntary, the average incomes of the households who participated increased significantly than the incomes of the non-participants who are the control group in this study. All other outcome variables including access to health, access to education, hygiene and sanitation, livestock ownership and technology adoption (through rural electrification) have significantly improved for those households who participated in all interventions than those who selected interventions to take part in one or two and also far much better than the livelihoods and development of the households who decided not to participate at all thereby unambiguously showing that multiple participation is more beneficial than selective participation and participation in general more beneficial than non-participation in various NGO interventions.

4.7. General sustainability of interventions

The likelihood of communities continuing with all the interventions on their own is high as they do not need significant periodic cash injections. Community members provided the labour when the interventions started, and they continue to provide all manual labour needed for repairs and maintenance. Vibrant structures to manage the programmes have been established and replacement of leaders who might have passed away or failed to carry out development mandated duties are continuously done and elections for leadership posts are democratically carried out after every 3 years based on merit thereby guaranteeing sustainability the interventions.

4.8. Strengths of MCA

Genealogical connections of the households in the five villages of MCA (descendants of Mutubuki – Njerere, Mutubuki, Bote, Musengiwa and Mudhefi) which enabled easy coordination and setting up of vibrant leadership structures for the Association and this resulted in further unification of the households. The place is located in an area full of water facilitated by the big vlel now wetland hence facilitated agriculture, health and sanitation interventions.

5. Conclusions and recommendations

From the MCA case study, NGOs have proven to be sustainable livelihoods and development oriented and therefore acts as a justifiable complementary force to the Zimbabwean government development initiatives. NGOs also complement each other in their areas of intervention thereby jointly providing a full package of sustainable livelihoods and development. Also there are more benefits to the participants than non-participants despite the non-participants also benefiting through the positive spill over effects which in this instance outweigh the negative spill over effects since the interventions resulted in the provision of goods and services which can be treated under the public goods category to the communities.

Through the different arms of the government, various attempts have been made to try and alleviate poverty and promote both sustainable livelihoods and rural development but without the help of NGOs, the Zimbabwean government have been and will always be subjected to critical challenges to meet the rural people's needs given a plethora of macroeconomic cross examinations bedevilling the nation which includes mainly the persistent fiscal deficits, balance of payments deficits and vulnerability to natural disasters (droughts, floods and the current climate change).

Multiple intervention participants are better off than the single intervention participants and generally participants are much better off in all aspects than non-participants. Average incomes of participants increased significantly and ultimately livelihoods. NGOs promote women empowerment and participation in economic activities in MCA. NGOs contribute immensely towards the achievement of the Sustainable Development Goals (SDGs) as evidenced in MCA case study. Generally, NGOs result in sustainable livelihoods and rural development.

From the definitions of sustainable livelihoods, there are aspects of maintenance and secure ownership of and access to assets, resources and income as well as ensuring adequate stocks of food and cash to meet basic needs under which in this study, all the three aspects of maintenance, ownership and access to assets are enhanced through the various NGO interventions in the study area.

5.1. Policy recommendations

Government policies should be conducive and complimentary to NGO interventions. Government's supreme role is to build an enduring political, economic and socio-cultural environment that promotes sustainable livelihood and rural development. A complete paradigm shift on the part of government perceptions towards NGOs as agents of political regime change to development oriented organisations.

The government should complement through the provision of other services such as support staff/services like the extension workers/services in Agriculture interventions and community health workers/services in health interventions. Also better irrigation facilities needs to be introduced in order to increase agriculture productivity since the main livelihood activity in many rural areas is smallholder farming. The rural population should be capacitated on how to fish (various sustainable interventions) instead of being given fish (social protection) through guided efforts, to initiate, participate and execute desirable projects in their communities.

Through NGOs, sustainability of rural development and livelihoods can be achieved through the promotion of social, cultural, educational and economic wellbeing of the rural population. This in turn benefit the rural people and the nation at large through the increase and diversification of job opportunities, improvement of rural incomes, mobilization of the rural population for self-help and self-sustaining programmes which translate into sustainable livelihoods and rural development thereby enhancing the achievement of SDGs.

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