

IS A CONTRIBUTORY SOCIAL INSURANCE SCHEME FOR UGANDA'S FARMERS FEASIBLE?



Swaibu Mbowa, Sserunjogi Brian, Nakazi Florence and Namuleme Hildah

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Tel: +256-414-541023/4 Fax: +256-414-541022 Email: eprc@eprcug.org Web: www.eprcug.org

EXECUTIVE SUMMARY

This study examines the feasibility of establishing a contributory social insurance scheme for farmers in Uganda. To achieve this, we used different analytical approaches, including policy document review, stakeholder consultations, and analysis of the 2019/20 Uganda National Panel Survey. The study finds that while Uganda has put in place a robust legal and regulatory framework for social security, various gaps exist in the informal sector. Particularly, the regulations to operationalise coverage of self -employed workers within the recently amended NSSF Act have not been passed. Second, most pension sector laws are stated in general terms, enacted to encompass all sectors of the economy without due consideration to the sector specific peculiarities which are key in the case of the agriculture sector. Considering farmers' income capacity to save, the findings reveal that while aggregate agricultural sector income is attractive, annual household earning remains small, averaging UGX 782,914 per year. In addition, agricultural earnings by season remain irregular and fluctuate from one season to another. This has implications on the design for farmers' social insurance scheme. Lastly, whatever social insurance model that Uganda adopts, the country must leverage partnerships, working closely with farmers' cooperatives and agricultural commodity buyers; promote farmers' educational and awareness campaign about the benefits of social insurance and provide incentives to farmers to drive enrolment, registration but also affordability of contributions.

ACRONYMS/ABBREVIATIONS

SDG Sustainable Development Goals
NDPIII National Development Plan

MoFPED Ministry of finance, planning and Economic Development
MoGLSD Ministry of Gender, Labour and Social development

FSD Financial Sector Deepening Uganda ILO International Labour Organisation

URBRA Uganda Retirement Benefits Regulatory Authority

UBOS Uganda Bureau of Statistics
UNPS Uganda National Panel Survey
NSSF National Social Security Fund

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1.0. INTRODUCTION

1. 1. Background

Social protection is a fundamental human right enshrined in the Constitution of the Republic of Uganda. Specifically, Chapter Four of the Constitution urges the State to take affirmative action in favour of marginalized groups including older persons. Particularly Social insurance is also directly linked with Sustainable Development Goals (SDG) 1. Accordingly, Target 1.3 aims to implement nationally appropriate social protection systems and measures for all and achieve substantial coverage of the poor by 2030. Target 1.5 aims to build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters. Besides reducing vulnerability to old age poverty and lifecycle risks and shocks, contributions from social insurance schemes offer an alternative source of mobilizing domestic resources for government investment through borrowing. Indeed, by June 2023, pension and provident funds (32.2%) were the second largest contributor to Uganda's domestic debt after commercial banks (38.6%) (MoFPED, 2023).

Uganda's efforts to extend social protection to the population is clearly highlighted in Uganda's vision 2040 and its attendant national development plans (NDP). Uganda had an overarching regulatory framework - National Social Protection Policy in 2015 from which all social protection aspirations are anchored. Specifically, Uganda's third National Development Plan outlines several social protection interventions to reduce vulnerability along the human lifecycle. Regarding social insurance, the plan aims to expand coverage from 7.5% in 2017 to 20% by 2025, and reform contributory social security schemes to the informal sector to cover more risks and provide a wider range of benefits. However, this has only been achieved for workers in the formal sector, who account for only 5.1 per cent of the entire working population (URBRA, 2022).

According to UBoS (2023), only 16.8 percent of Uganda's workforce is eligible for some sort of retirement benefits arrangement. Considering sectors, only 0.8 percent of employed persons in Uganda's agriculture sector benefit from retirement benefits; and only 1.2 percent benefit from health insurance coverage. The observed low social insurance coverage is not surprising, since, about 61 percent of Uganda's 18.3 million working population are engaged in the agriculture, 47 percent are independent self-employed, and 72 percent reside in rural areas (UBoS, 2023). This situation implies that farmers remain vulnerable to covariate risks (such as Livestock epidemic outbreaks, prolonged droughts, floods and other climatic events) and idiosyncratic (i.e. Death, sickness, loss of employment) risks, which further exacerbates the existing vulnerability and low resilience of Uganda's agricultural sector.

1.2. Context

Uganda's social security systems¹ and the legal framework remains formal, mainly targeting formal sector workers (IOPS, 2019)2. As such, social security coverage remains low. Despite low coverage, Uganda has undertaken considerable effort to improve the pension regulatory framework by passing supportive policies and legislations. Particularly, the recent amendment in the National Social Security Fund Act, 1985 to allow persons who are self-employed to apply for membership and make voluntary contributions to the fund is a step in the right direction. Despite this development, the government has not passed regulations to implement the modalities for selfemployed workers under the amended NSSF Act. As such, the regulatory environment remains largely targeted towards workers in paid employment.

A review of past evidence by (Sato *et al*; (2022); Perin *et al.*, 2022), reveals that the low social insurance coverage for self-employed agricultural workers is partly explained by the high administrative and monitoring

¹ Public Service Pension Scheme for traditional public sector employees; National Social Security Fund for all formal employees outside the PSPS; other formal employer-based schemes such parliamentary pension scheme and the Armed Forces Pension Scheme.

² IOPS (2019), IOPS country profile, Uganda

costs involved in covering individual farmers by social insurance funds; low contributory capacity due to low earnings; irregular incomes that prevent self-employed agricultural workers from making regular contributions; as well as limited innovative farmer organisation that prevents farmers' from making regular social insurance contributions (ibid). Lastly, enforcing self-employed agricultural workers' contribution remains a challenge given the absence of an elaborate legal framework for the implementation of informal contributory social security schemes. The exclusion from social insurance schemes has led farmers to resort to coping strategies, such as the distress sale of assets, taking predatory loans or engaging in child labour to deal with occasional farm losses due to market and weather shocks (ibid).

Despite the above shortcomings, several developing countries have developed innovative models in extending contributory social insurance coverage to self-employed workers, including small-scale farmers. Durán-Valverde et al., (2013) and ILO (2021) reported that Latin American as well as South Asian countries that have a high population of self-employed informal workers had adopted collective insurance agreement, differentiated contributory income categories among other models to extend contributory social insurance for farmers. Such models are worthy exploring to understand their feasibility and effectiveness for Uganda.

Against the above background, this study assesses the possibility for establishing a contributory social insurance scheme for Ugandan farmers. Specifically, the study aims to:

- To examine the gaps in Uganda's policy and legal frameworks that are likely to constrain the establishment of contributory social insurance scheme for farmers.
- To assess farmers' income that can be mobilised for contributory social insurance savings.
- c) To examine innovative models that other developing countries have undertaken to mobilise contributory social insurance savings from selfemployed agricultural workers.

The findings of the study have significant implication for enabling Uganda to achieve the outcomes of the first target of the Sustainable Development Goals (SDG), aimed at improving social welfare by reducing old age poverty and vulnerability. The study is further directly linked to the Human Capital Development Programme of the Uganda's Third National Development Plan, which aims to increase the proportion of the population accessing social insurance to 20 percent by FY2024/25 from 7.5 percent in 2020/21. Finally, with dwindling external financing for Uganda's development aspirations and raising public financing deficits, successful expansion of contributory social insurance directly contributes to increased domestic resource mobilisation, enabling government access to cheap source of domestic financing.

The rest of the study is organised as follows; Section two provides the approaches undertaken. Section three provides a review of the regulatory and institutional framework to identify gaps that limit the extension of contributory social insurance to farmers. Section four provides estimates of the net on-farm earnings available from both Uganda's crop and livestock enterprises. Section five presents innovative models from country case studies and assesses their feasibility in Uganda's context. The conclusions and emerging policy options are presented in the last section.

2. 0 STUDY APPROACH

The study employed a mixed-methods approach, combining desk reviews, quantitative and qualitative analysis to give findings their validity. We discuss each in turn below.

2.1. Analysis of the Uganda National Panel Survey

This study uses the 2019/20 wave of the nationally representative Uganda National Panel Survey data collected by Uganda Bureau of Statistics (UBoS) to examine farmers' on-farm income dynamics from the sale of agricultural products from both the crop and livestock enterprises. The UNPS survey captures

detailed and seasonal based information relevant to the computation of total value of agricultural sales (from crop and livestock enterprises) and the total cost of production (i.e. variable costs, fixed costs, depreciation costs etc.) used to produce agricultural output. The UNPS is conducted annually at the national level in two visits per wave to capture agricultural outcomes in Uganda's two cropping seasons. Therefore, interviewers interview each household twice a year, approximately six months apart. Using the sample weights provided by UBoS, we adjusted the survey-based results presented in this study to reflect the given population.

2.2. Description of key indicators computed

The study followed methodology used by Gero et al. (2007) and Carlos and Marcelo (2020) to estimate the income and cost aggregates of self-employed agricultural households, using household survey data.

2.2.1. Total value of production

We estimated the total value of sales of on-farm produce for the NDP III priority both crop (coffee, maize, beans, banana, sugarcane, cotton, tea, cocoa) and livestock enterprises (dairy) and by-products in the two seasons. In computing this income indicator, the study considered the total value of sales reported by cash value as well as value of in-kind payment received for agricultural produce.

2.2.2. Total cost of production

According to Carlos and Marcelo (2020) the cost of farm production comprises variable costs, fixed costs, depreciation and cost of maintenance, and a valuation of opportunity costs, as well as the amortized costs of establishment for perennial crops. However, since the current study focuses on small-scale farmers, we follow a typical variable cost approach which is most appropriate for small-scale agriculture producers. The variable cost approach typically considers only production inputs such as paid labour, cost of credit, transportation of inputs and output, fertilizers, and pesticides used in the production cycle.

According to Carlos and Marcelo (2020), farmers must

incur fixed costs whether they produce or not, which include annual payments for cooperative memberships and taxes. In Uganda, this cost is non-existent for self-employed agricultural smallholder. Depreciation and maintenance costs are incurred on productive assets (wheelbarrows, spray equipment, pruning implements, small-scale processing equipment) and vehicles) to be used in more than one harvest cycle. Carlos and Marcelo (2020), states that these costs are not significant for small scale agricultural households since they do not have significant productive assets. Opportunity cost of land related to income obtained by households if they rent land. However, UNPS has a very insignificant number of farmers involved in temporary land agreements (i.e. land rentals and sharecropping)

2.2.3. Net farm income

We computed the net on-farm income as the total value of farm sales minus its associated production costs for a particular crop/livestock enterprise. The net on-farm income was separately computed for each product produced and sold on the farm including the main crops. The net incomes for first (July-December of previous year) and second (January-June of current year) season of each of these enterprises was summed up to obtain the total net annual farm income.

Non-farm income/ labour income was not estimated. Carlos and Marcelo (2020) define net off-farm income as all income coming from all economic activities other than the production of primary agricultural commodities (farm income). Despite its importance for household risk diversification, non-farm labour income is highly seasonal and fluctuates with household labour and financial flows between farm and non-farm activities. As such data on non-farm employment is underestimated as it does not necessarily include all household members and/or excludes secondary and seasonal pursuits (ibid). Moreover, the UNPS dataset does not capture data on households off-farm labour income.

2.3. Policy document reviews

We undertook a critical review of past and present

policy frameworks addressing social security in Uganda to complement the household survey data analysis. This involved examining existing legal, regulatory and policy frameworks that impact social security and social insurance. These include Uganda's long-term development strategies; Uganda's Vision 2040; 1995 Constitution of the Republic of Uganda, the third National Development Plan, Pension Acts, Uganda Regulatory Benefit Retirement Authority (URBRA) Act, National Social Protection Policy, Labour and Workers legislations, Policies and regulations were reviewed. We also reviewed country case studies on mobilizing social security savings from the agriculture sector. This Review provided a basis for establishing what innovative models have developing countries have undertaken to extend social insurance coverage for their farmers. The review further presented the extent to which the current policies are responsive to mobilising social insurance savings from Uganda's informal sector.

2.4. Stakeholder consultation

The study's qualitative component was addressed using two forms of consultations. The first form entailed undertaking of key informant interviews (KIIs) with key stakeholders within Uganda's social insurance ecosystem namely— through a structured questionnaire. Key Informant Interviews were from the following institutions, the National Social Security Fund, The Uganda Retirement Benefits Regulatory Authority, Ministry of Public Service, The Parliamentary Pension Scheme, The Makerere University pension Scheme. We conducted other KIIs with private informal sector schemes such as Mazima Voluntary Individual Retirement Benefits Scheme and the Kampala City Traders' Association (KACITA) Provident Fund, the International Labour Organization, financial institutions, the World Bank, business associations, development finance institutions, development partners, multilateral lenders, and private sector business agencies. The qualitative data collection was informed by a detailed review of the relevant secondary data/information sources.

We implemented the second consultation during the

12th National Annual Forum on Agriculture and Food Security held on August 27th, 2024, at Golf Course Hotel, Kampala, with the theme "Is a contributory social insurance scheme for farmers feasible in Uganda?" This aimed at deliberating on the prerequisites required, the challenges anticipated as well as strategies other developing countries have undertaken to extend a contributory social insurance to self-employed agricultural entrepreneurs

3.0 FINDINGS

3.1. Review of national policy responses for promoting contributory social insurance within Uganda's agriculture sector

This section presents an assessment of the current national responses for the establishment of contributory social security schemes in Uganda. The review highlights the key gaps that need to be addressed to achieve contributory social security broadly within Uganda's informal sector.

3.1.1 Legal frameworks for social protection remain inconclusive on contributory social insurance for farmers - regulations to operationalise the modalities for self -employed workers within the amended NSSF Act have not been passed

Uganda's 1995 Constitution (as amended) makes provisions for the social protection of Ugandans. Specifically, it accords responsibility for the provision of welfare and maintenance of the aged to the State, it stipulates that all Ugandans have a right to access basic needs such as education, health services, pension, and retirement benefits among others. At the sectoral level, there are also specific laws pertaining to contributory social security schemes. First, the Uganda Retirement Benefits Regulatory Authority Act, 2011, established the Uganda Retirement Benefits Regulatory Authority (URBRA) and sets out its functions, powers, and responsibilities. URBRA is responsible for regulating and supervising retirement benefits schemes in Uganda. The body has several

mandates which include supervising and regulating the operations of retirement benefit schemes, protecting the interests of scheme members and beneficiaries, promoting the development of the sector, and ensuring its sustainability. It also carries out awareness campaigns, licenses, approves scheme auditors and actuaries, and advises the minister on national policy and implementation of the government's sector policy. Figure 1 lists other critical legal and policy frameworks that are relevant for promoting contributory social security schemes in Uganda.

The National Social Security Fund Act, 1985. This law established the National Social Security Fund (NSSF), a mandatory retirement savings scheme for all employees in Uganda. Employers and employees

contribute a percentage of their salary to the scheme, which provides retirement, invalidity, and survivors' benefits. Besides the above, Uganda's legal framework comprises other supportive laws such as the Pension Act (CAP 286), The Registration of Persons Act (2015), The Minimum Wages Board and Wages Councils Act (CAP 221), the Income Tax Act, 2014, which provides tax incentives for pension and retirement savings schemes, including deductions for contributions made to such schemes. The Capital Markets Authority Act, CAP, 84, that aims at promoting and facilitating the development of an orderly, fair, and efficient capital markets industry in Uganda.

Despite the existence of a robust legal framework for social protection, it remains inconclusive. Particularly,

Figure 1: Selected laws and policy frameworks for supporting contributory social security schemes **SOCIAL PROTECTION LAWS POLICIES PROGRAMMES** The 1995 Constitution of Uganda The National Orphans and other -NUSAF I, II &III The Children Act (Cap 59) Vulnerable Children Policy (2004) -KALIP The Registration of Persons act (2015) The National Child Labour Policy -ALREP The Pensions Act (Cap 286) (2006)-NSSF The NSSF Act (Cap 222) The National Policy on Disability -Bank of Uganda Retirement Benefits The Uganda Retirement Benefits Scheme Regulatory Authority Act (2011) The National Policy for Older Persons -Parliamentary Pension Scheme The Workers Compensation Act (Cap (2009)-Makerere University Retirement 225) The National Employment Policy Benefits Scheme The Comestic Violence Act (2010) (2010)-Social Assistance Grants for Employment Act No. 6 (2006) The Uganda Gender Policy (2007) Empowerment (SAGE) The Succession Act (Cap 162) The National Policy for Disaster **Others** The Land Act (Cap 227) Preparedness and Management -The Youth Venture Capital Fund The Persons with disability Act (2006) (2010)-The Youth Livelihood Programme The Minimum Wages Board and Wages The Uganda National Social Protection The Women's Entrepreneurship und Councils Act (Cap 221) Policy (2015) The Occupational Safety and Health Uganda National Nutrition Policy and Act No. 9 (2006) Plan

Source: Adapted from Guloba et al., (2017)

all the above pension sector laws are stated in general terms, enacted to encompass all sectors of the economy without due consideration to the sector specific peculiarities. The above laws do not target sector specific differences (Guloba, 2020). For instance, Uganda's agriculture sector is characterized by smallholder, informal, self-employed workers, ploughing an average of 1.4 hectares. Many of these are women (82%) and as much as 65 percent remain subsistence production. The recent amendments to the NSSF Act do not cover self-employed individuals like those in Uganda's agricultural sector. According to UBRA (2023), while the amendment allows employers of any size to contribute to the scheme, the definition of an employer in the Act refers to a registered or incorporated under the Companies Act, 2012. Because 51% of Uganda's GDP originates in the informal sector, the law excludes a large segment of informal agribusiness and farmers. The NSSF amendment is also not clear on the size of the company required to make matching contributions to its employees. This means that small and medium employers with insufficient capital may not be able to make regular monthly contributions.

In the same light, Uganda's existing social protection laws and policies give a narrow definition of Uganda's informal economy. Guloba (2020) reported that the employment Act 2006 focuses on domestic and casual workers, excluding other informal sector occupations outside of these two categories. Likewise, the National Social Protection Policy does not adequately state the avenues for covering the informal economy. The NSSF's Voluntary Retirement Savings Scheme remains targeted to ex-formally employed workers that joined the informal economy (*ibid*).

Apart from being informal sector blind, many of these laws are outdated and need amendment considering the current challenges facing Uganda's contributory pension schemes. UBRA (2023) reported that the Electronic Signature Act (2011) required to regulate biometric information is outdated. The UBRA Act (2011) also remains restrictive on the type of pension investments to be made for scheme funds. According

to the UBRA Act (2011) scheme funds are not allowed to be invested for speculative purposes, make direct or indirect loans to any person, deposited in a bank or non-financial institutions, insurance for securing a loan or mortgage, not to be invested outside of East Africa, not to be lent to anyone except through securities sold on the open market.

These restrictions can impede the establishment of an adequate pension incentive system to attract farmers to save in the case of the agriculture sector. As such, tailoring the UBRA Act towards Uganda's informal agriculture sector, requires amendment of the current Act to incorporate innovative features, investment strategies and technology-driven solutions to attract the farming community. (*ibid*). Alternatively, a new legal framework, similar to the 1985 NSSF act for formal sector workers, could be implemented for the informal sector. The new Act would take in consideration the evolving dynamics of Uganda's informal sector.

3.1.2. Existing pension system does not provide for agricultural related commodity buyers to retain part of farmer sales proceeds/ payments for onward submission to a central agency

According to UBRA (2023) Uganda has a total of 65 licensed retirement benefit schemes by 2021. Considering national mandatory schemes, the Public Service Pensions Scheme (PSPS) and the National Social Security Fund (NSSF) are the largest schemes. The amendment of the 1946 Pension Act established the PSPS in 1994. It is a non-contributory scheme which ensures the provision of pension benefits to public service employees and caters only to formally employed civil servants. On the other hand, NSSF which was established in 1985, covers both formally and informally employed private sector workers.

Despite the amendment in the NSSF law that allowed for informal sector contributions, NSSF has largely focused on organised formal sector due to the high collection cost associated with individual informal workers in the agriculture sector. According to UBRA (2023) NSSF's cost to income ratio is 11.8% while that for Mazima Voluntary Individual Retirement Benefits

Scheme is 24.8 %. Second, the amendment allows for voluntary contributions from self-employed workers, which is not feasible for a sustainable pension scheme. This was re-echoed during the national forum by one of the participants

"The design of Uganda's Social Security schemes is currently tailored to formal workers. Benefits could be structured to attract those in the informal sector, including farmers. The current benefit package is not appealing to farmers. A more attractive and immediate benefit package could increase subscription rates...... The design - the administrative system for pension or Social Security institutions is not accessible to less educated individuals, such as elderly people in rural areas........ KII, ILO

"Government designed supporting institutional frameworks for the formal sector, but there are no frameworks for informal farmers, be sensitive of who farmers are....."

Globally, effective mobilisation of pension saving requires a robust institutional setup to ensure cost effectiveness. In this regard, KIIs with NSSF and UBRA revealed that mobilising savings from individual informal sector agricultural farmers is costly due to high cost to income ratios— for individual farmers compared to organised institutions like companies. The same reason—high cost-to-income ratios—accounts for NSSF's relatively low estimated cost-to-income ratio of 11.8% compared to Mazima Voluntary Individual Retirement Benefits Scheme's 24.8% (URBRA, 2023). In this regard, NSSF suggests that the first point of entry to mobilising savings from the agriculture sector requires two prerequisites namely, effecting mandatory contributions and targeting agricultural value chains that already have operational out-grower- commodity buyer institutional framework (such as Uganda's sugarcane, tea, and sunflower enterprises). In addition, agricultural value chains (dairy and coffee) where these institutional frameworks (i.e. farmer cooperatives and SACCOs/VSLAs) are loose but could be strengthened give enormous opportunities. This is because having a functional out-grower-off-taker institutional framework not only provides an avenue for ensuring mandatory and periodic retention of the farmers' savings by a trusted institution but also helps government to establish a feasible incentive system to attract long-term farmers' saving.

According to NSSF, voluntary contribution within informal sector pension schemes is the main cause of unsustainable mobilisation of long-term pension savings. Accordingly, mobilising saving from the informal agricultural workers requires implementation of a mandatory scheme. However, sustaining a mandatory contribution from the informal sector requires empowering the sector to generate sufficient on-farm household incomes. In its present form, Uganda's pension legal framework does not enable agricultural related commodity buyers such as Kinyara or Kakira sugar Limited to retain part of out-growers farmer sales proceeds/ payments. Instead, the current NSSF Act restricts these employers to retain 5% of only their staff salaries for onward submission to NSSF.

Besides formal schemes, there also exist nonmandatory social security schemes such as KACITA provident and MAZIMA retirement plan. These largely target Uganda's informal sector and their membership is voluntary. Furthermore, members pay contributions through mobile money accounts, although MAZIMA allows direct deposits (Guven, 2019). Both schemes have a flexible withdrawal of savings and can make withdrawals from the first year onwards for KACITA (Guven, 2019) whereas for MAZIMA after 6 months³. Additionally, the contributors in both schemes do not experience penalties for non-payment. To be enrolled, both schemes require a registration fee of UGX 10,000 (about USD 2.74). However, they differ regarding the contribution amount. On the one hand, under MAZIMA, members can make a daily contribution of UGX 2000 (about USD 0.55 cents) or a monthly contribution of UGX 10,000 (World Bank, 2019). On the other hand, KACITA mandates a minimum contribution of UGX 3000 (approximately USD 0.82), which members are

³ https://mazimarbs.co.ug/Downloads/Mazima%20Brochure.pdf

required to pay at their convenience (FSD, 2023).

Reports indicate that these schemes face the common challenges of limited coverage and inadequate data, thus affecting their effectiveness (Guloba, 2020). As already stated above, voluntary membership is one key weakness in mobilising sustainable pension savings. Besides these schemes also suffer from governance challenges related to financial management, unsustainable business models, inadequate financial technology adoption, members' financial illiteracy, limited geographical outreach and high operational cost (UBRA 2023).

Lastly, actual implementation of some of the programmes and interventions that target the informal sector, stated in the above laws and policies has remained slow. For instance, although the National Health policy (2010) targets informal sectors, Uganda has not implemented any interventions for its informal sector since its adoption. Furthermore, UBRA (2023) reported that a coordinated framework was missing from most of Uganda's social programmes, leading to duplicated resources, poor implementation, and social exclusion. Due to these inherent challenges,

implementation of these schemes had not attracted sufficient public budgetary resources for effective implementation from Government. Moreover, Uganda still appears to be lagging greatly regarding pension schemes for the agricultural sector, yet it is reported as the backbone of Uganda's economy and warrants social security benefits to cater for the farmers in their old age. Overall, there are still some significant gaps regarding the inclusion of the informal sector creating the need for more intentional steps to close them.

4.0 ASSESSMENT OF HOUSEHOLD ONFARM INCOME AND ITS CHARACTERISTICS FOR CONTRIBUTORY SOCIAL INSURANCE

This section examines the household on-farm income and its characteristics to gauge the contributory capacity of Uganda's farmers to social insurance schemes. The

Table 1 Household median crop earnings by selected household characteristics (2019/2020) Season 1 Season 2 **Annual** (July-December 2018) (January- June 2019) (2019/2020)Sex Male 337,500 320,000 597,000 Female 155,000 136,000 242,000 Residence Rural 245,000 240,000 425,000 Urban 297,000 320,000 448,000 Age group 18 to 30 212,000 166,000 401,500 31 to 64 470,000 267,000 280,000 176,000 312,000 Above 64 185,000

Source: Author's computation based on UNPS 2019/20

aspects above help to come up with innovations and contribution rates that are appropriate while extending social insurance coverage to the farmers.

4.1. Contribution to social insurance must consider the differential characteristics of farmers

Ugandan farmers, like any other developing country often face unique circumstances that differentiate them from other sectors of the workforce. Results show that male agricultural farmers earned more than double their female counterparts. By the end of agricultural year (2019/2020), male-headed households earned UGX 597,000 compared to UGX 242,000 earned by females (Table 1). Male agricultural entrepreneurs dominate cash crop production and possess larger land sizes for agricultural activities. On the other hand, female agricultural entrepreneurs tend to engage in food crops for household food security. In addition, their scale of agricultural operation is small due to the small land sizes for growing commercial crops.

Whereas results by age group reveal that farmer aged between 31-64 years registered higher earnings than those in lower age bracket (18-30 years), and the older workers (above 64 years). These differences make it essential for social insurance schemes to be tailored to their specific characteristics. In this case,

any plans for increasing contributory social insurance coverage for farmers would first target the 31-64 year age group for mandatory social insurance registration and contribution. Instituting mandatory registration and contribution of social contributions by all self-employed workers has been studied to be the most proactivestrategy for extending coverage among self-employed workers (Durán-Valverde et al., 2013). Countries like Cape Verde reformed its social security law in 2009 to allow for mandatory registration and contributions. However, Uganda may not institute mandatory contribution for all agricultural entrepreneurs without subsidizing contributions from the national budget. This is because earnings from farmers are low. As such, the country may expand social insurance coverage considering a mix of voluntary and mandatory contributions options for the agriculture sector. This arrangement has already been undertaken by many Latin American countries with large independent own account workers.

4.2. Aggregate agricultural sector income is attractive, but annual household earning remains small averaging UGX 782,914 per year.

The aggregated household net earnings from sale of selected agricultural enterprises during the agricultural year 2019/20 were approximately UGX 5.5 trillion, with

| Table 2 Total household net earnings by agricultural enterprise (UGX, Billion) (2019/20) | | | | | |
|--|---------|-----------|---------|--|--|
| Crop enterprise Season 1 Season 2 Annua | | | | | |
| Banana | 816.7 | 840.8 | 1,657.5 | | |
| Coffee | 606.4 | 333.7 | 940.1 | | |
| Maize | 243.9 | 297.6 | 541.5 | | |
| Sugarcane# | 138.9 | 87.9 | 226.8 | | |
| Beans | 72.5 | 61.2 | 133.7 | | |
| Cotton | 58.5 | 16.3 | 74.7 | | |
| Tea | 90.3 | 135.9 | 226.2 | | |
| Cocoa | 10.7 | 7.1 | 17.8 | | |
| Dairy cows | | | 584 | | |
| Other crops | 539.9 | 538.7 | 1,078.6 | | |
| Total earning | 2,037.9 | 1,780.5 | 5,480.4 | | |
| Average Annual Earning/Household* | | 782,914.3 | | | |

Source: Author's computation based on UNPS 2019/20

Note: * Assuming total number of agricultural households is approximately 7 million

While sugarcane sale and cost of production data has been analysed on an annual basis following the UNPS data collection arrangement (i.e. data is collected every 6 months in two separate visits a year). Sugarcane field harvesting of the first sugarcane crop occurs at 18 months while the follow up sugarcane harvests (ratoons) occurs after 16 months

farmers engaged in banana farming generating the highest earnings (UGX 1.7 trillion), followed by coffee (940.1 billion) and Maize (541.5 billion) (Table 2). Analysis of agricultural earnings by season reveals that income from agricultural enterprises is irregular and seasonal and can fluctuate from one season to another. The net earnings from the crop enterprises dropped by about 13 percent from approximately UGX 2 trillion in season 1 (July-December 2018) to UGX 1.7 trillion in season 2 (January-June 2019). The decline in earnings was largely due to a drastic drop in coffee, cotton and cocoa earnings between both seasons.

Unlike salaried workers who receive a consistent salary, farmers' income depends on harvest cycles, whose annual agricultural earning remains small, averaging UGX 782,914.3 per household per year. This makes it difficult for farmers to commit to fixed and regular contributions as required by many social insurance providers, and calls for varied contributory rates and frequency to mobilise contributory savings off the above total agricultural incomes.

Given the low agricultural earning, studies (ILO, 2021, Sato et al., 2022) have suggested various mechanisms for contributing to social insurance for farmers: For

example, Brazil uses voluntary contributions of a minimum rate of 20 per cent of the minimum monthly salary or a minimum contribution fee set at 11 per cent of their earnings. The system provides the flexibility to increase or decrease in contribution percentage at any time. In addition, the rural subsistence farmers in Brazil, categorised as "specially insured" contribute 2.1 per cent of the total sales value of their products. In the Philippines, self-employed workers not enrolled on any mandatory scheme farmers pay a flat rate of 9 percent. In Costa Rica's, self-employed agricultural workers' contribution rate is set at 19.5 percent of the reference income that reflects the minimum wage for public sector workers.

Although different approaches have been adopted by different countries, ILO (2021) recommends that farmers' contribution to social insurance schemes could adopt the following contributory dimensions namely, consider quarterly or annual rather than monthly incomes; set uniform contribution rates; set contribution categories based on earnings and contribution categories based on proxy measures. However, before the decision, a thorough examination of the merits and demerits of each is necessary (ibid).

 Table 3
 Median biannual household earnings by acreage for selected crop enterprise (UGX,000) in 2019/20

| | Acreage | Banana | Coffee | Maize | Sugarcane | Beans |
|----------------------------------|----------|--------|--------|-------|-----------|-------|
| | <=1 acre | 150 | 80 | 60 | 240 | 49 |
| | >1<=3 | 280 | 184 | 88 | 800 | 66 |
| Season 1 (July-December 2018) | >3<=5 | 420 | 280 | 174 | 250 | 85 |
| (July-Decellibel 2010) | >5<=10 | 680 | 600 | 290 | - | 285 |
| | >10 | 944 | 1,265 | 100 | - | 236 |
| | <=1 acre | 170 | 68 | 58 | 75 | 78 |
| | >1<=3 | 240 | 188 | 135 | 180 | 100 |
| Season 2 | >3<=5 | 455 | 213 | 160 | 500 | 145 |
| (January- June 2019) | >5<=10 | 540 | 354 | 400 | 7,900 | 290 |
| | >10 | 1,570 | 2,976 | 140 | - | 300 |

Source: Author's computation based on UNPS 2019/20

| Table 4 Annual median household income from dairy cows (UGX) (2019/20) | | |
|--|------------|--|
| Number of Cows | Net Income | |
| <=5 | 486,000 | |
| >5<=10 | 784,000 | |
| >10<=25 | 1,721,000 | |
| >25<=40 | 3,410,000 | |
| >40 | 6,390,000 | |

Source: Author's computation based on UNPS 2019/20

4.3 Agricultural income earning increases with the scale of agricultural operation (land size)

Farmers operating on an average of 3 acres and above registered high earnings across all the crop enterprises and in both first and second season (Table 3). But across both seasons, farmers engaged in the banana and coffee production and were operating on more than 3 acres, registered comparatively higher and stable earnings than their maize, beans and sugarcane counterparts.

The same trend is also observed in livestock with number of dairy cows (Table 4). Household earnings from dairy increases with the number of cows farmers keep. The relationship exists because larger landholdings typically allow for higher production volumes, more efficient use of inputs, and greater economies of scale.

It is therefore evident that farmers' incomes are earned biannually (every 6 months) and associated household monthly incomes remain small. This implies that any potential design for farmers must be flexible to consider the time of earning and scale of operation of agricultural enterprises. Determining the contribution frequency for farmers in Uganda could be based on biannual contributions (during harvest season) rather than monthly contributions. Alternatively, contributing farmers can be allowed to pay in advance for many months ahead during the harvest and peak sales season to compensate for savings during the planting and growing seasons (Pellerano and Phe Goursat 2016).

5.0 REVIEW OF INNOVATIVE COUNTRY APPROACHES TO EXPAND CONTRIBUTORY SOCIAL INSURANCE FOR FARMERS

Different countries have come up with innovative approaches to expand contributory social insurance. In this section, we present country experiences and innovations in the policy, administrative and legal frameworks that could be leveraged on to expand contributory social insurance coverage to farmers. Based on this review, the practicability of implementation of the same, in the case of Uganda is also discussed.

5.1. Collective registration agreements enable farmers associations to enter into group insurance agreements with a central social insurance scheme

Collective registration systems⁴ enable self-employed workers grouped in independent organisations such as cooperatives and producers' associations to enter into group insurance agreements with a central social insurance scheme (Durán-Valverde et al., (2013)⁵. In this agreement, all contributions made by self-employed agricultural workers are transferred to the state social insurance institution.

⁴ Collective registration agreements are agreements that involve grouping farmers into cooperatives or producers' associations, which then enter into group insurance agreements with a central social insurance scheme

5.1.1. Costa Rican Collective Insurance Agreements

To overcome high administrative costs of mobilizing contributions from individual farmers, Costa Rica introduced a collective registration model to extend social insurance coverage for its farmers organized in self-managed cooperatives and associations. This model involves working with the leadership of these farmers' cooperatives to authorize a Collective Insurance Agreement which covers all their members. Under this arrangement, farmers' cooperatives or associations with which the agreement is signed, undertake to prepare a monthly report, to collect contributions among its members, and to transfer the latter to the central social insurance fund. The model's success is hinged on the sense of ownership it brings to the farmers' cooperatives. Box 1 provides highlights of the operation of collective insurance agreements with self-employed agricultural workers in Costa Rica.

5.1.2. How Collective Registration Agreements can be implemented in Uganda

In Uganda, administrative barriers play a key role in limiting social insurance coverage for self-employed farmers. A representative from NSSF at the forum emphasized

"The primary administrative barrier identified by NSSF since its inception is the requirement that individuals must have an employer to contribute. But many farmers operate independently and do not have employers. Consequently, designing a system that allows farmers to contribute to the fund poses challenges. The issue is further complicated by the farmers irregular cash flow, making it difficult for them to make consistent contributions......KII, NSSF"

Box 1: How Collective Insurance Agreement with self-employed farmers works in Costa Rica

- The process involves with negotiations between the central insurance fund The Costa Rican Social Security
 Fund (CCSS) and the farmers organised in a cooperative or association, subject to regulating conditions set by the
 CCSS. The process starts with the farmers' cooperative filing an application for registration with the CCSS, with
 documentation to establish its legal existence.
 - In no terms are workers outside the farmers' cooperative and/or in other paid employment from other sectors allowed in this arrangement.
 - o Only individual members of the farmers' cooperative association undertaking agribusiness activities that are consistent with the nature of the cooperative are allowed.
- The contribution to CCSS from farmers' cooperative is set according to the cooperatives' contributory capacity of the group.
 - The contributory capacity is determined from specific farmers income reference points as opposed to an ambiguous range.
 - Accordingly, several contribution scales and intervals to make the contributions, i.e. weekly, monthly or seasonal are established within the same farmers' cooperative.
 - As such, there is a single contribution for each income scale, and frequency at which members can
 mobilise contributions.
 - The cooperative ensures that each member fits into a contributory scale, appropriate to their income. CCSS inspectors periodically confirm this process.
- Collection of farmers' contributions and sharing of accompanying documentation are one way of ensuring and guaranteeing that the cooperative makes the right insurance benefits.
 - The cooperative sends the CCSS a monthly report with the collected funds, thus operating as a contribution collector.
- The established contribution of each member is not supposed to change before the completion of a year. They annually adjust contributions when they renegotiate the agreement.

Source: Adapted from Durán-Valverde et al., 2013 and ILO (2021)

Elsewhere, the Costa Rican case has adopted collective insurance agreements to reduce the administrative burden, monitoring and the transaction cost of collection from individual contributors. In Uganda, mobilising savings from individual farmers is costly compared to organised institutions or workplaces like companies and organisations. In this regard, a key informant at NSSF suggests that the first point of entry to mobilising savings from the agriculture sector requires - effecting mandatory contributions and targeting agricultural value chains like Sugarcane, Tea, Cocoa, Coffee and Dairy enterprises that already have operational 'out-grower farmer-commodity buyer' institutional framework. Indeed, a stakeholder during the 12th national forum indicated as below.

"Partnerships with worker representatives and off-takers to facilitate contributions on behalf of farmers could improve the social insurance system's effectiveness. The ILO has supported similar initiatives in various countries, and these experiences could provide valuable insights for enhancing Uganda's social protection system.... ILO"

For sugarcane and tea, the sugarcane mills and tea factories can act as the off-take institutional platforms, respectively. Regarding Cocoa and Coffee, the ideal institution would be cooperative societies and Unions. In case of dairy farmers, the milk collection centres, and dairy processing plants suffice for the dairy sector. The importance of having farmers organised in groups in a bid to join efforts for a contributory social insurance was re-echoed by a stakeholder during the 12th Annual forum on Agriculture and food security as below.

"Sugarcane farmers in Uganda have apex bodies - cooperatives through which they sell, and deductions are made that go to such cooperatives to run activities. At the end of every year, farmers receive savings. What cane farmers need is information on streamlined NSSF system that will be a custodian of their savings to enhance understanding and engagement...."

This is because having a functional out-grower farmer-commodity buyer institutional framework not only provides an avenue for ensuring mandatory and periodic retention of the farmers' contribution by a trusted institution, but also helps the government to establish a feasible incentive system to attract long-term farmers' savings. Understanding the specific needs of different target farmer groups and having them incorporated in the planned system was emphasised at the forum, since female farmers have distinct needs when compared to males. Indeed, a stakeholder at the 12th National Forum indicated as below.

".....About 12 years ago, while having a meeting with tea farmers in Bushenyi, a farmer asked tea processor why the tea factory paid NSSF for their workers and staff and did not pay for farmers in a similar arrangement because to the tea farmers their pay from the factory is the salary that could be used to remit to NSSF....."

In addition, NSSF can leverage the Parish Based Management Information System (PBMIS) under the Parish Development Model (PDM) programme to establish collective insurance agreements with the 10,585 PDM tier 4 Saving Credit and Cooperative Organisations (SACCOs) in each parish across the country (Alum *et al., 2024*). The newly established Parish Development Model (PDM) digital infrastructure across the country can be leveraged to bring farmers on board and reduce monitoring and administrative costs of collection.

5.2. Differentiated contributory income approaches

To overcome the key challenges to sustained social contribution such as seasonality and income irregularity for farmers, several countries (refer to information Box 2) have adopted differentiated social insurance contribution levels according to income levels. For Uganda, participants at the forum emphasized irregular and seasonal nature of agricultural income as a significant risk to soliciting savings. They emphasized the need to design contributory packages that align

with peak earning seasons of the targeted agricultural enterprise to allow farmers to contribute lump sums during these periods.

| Box 2: Differe | entiated contributory income categories adopted across countries |
|----------------|--|
| Kenya | Social Security legislation (NSSF Act) Allows self-employed workers to participate in social insurance schemes. Provides for a minimum contribution as well as minimum aggregate contributions in a year. Enables the Minister responsible to issue regulations that allow for flexibility in the timing of the contributions. A self-employed agricultural worker whose income fluctuates over time can make payments during peak harvest periods. |
| Philippines | Social Security System (SSS) law All self-employed workers aged 60 years, earning a minimum monthly income of USD 17.1 (UGX 62,068) and above, are mandatorily required to contribute towards the country's social security system. For farmers and fishermen, the minimum contribution income is USD 25.8 (UGX 93,103) per month. The SSS contribution rating is categorised in 29 income categories (ranges). Each income category has a uniform income subject to a contribution. 1st income category is set between USD 17.1 (UGX 61,560) and USD 21.5 (UGX 77,400). 29th (lowest contributory category) lies between USD 1.8 (UGX 6,455) and USD 27 (UGX 96,827). Although the same contributory scale is used for all registered participants, participants are free to make minimum and maximum contribution. |
| Brazil | Brazil's National Social Insurance Institute (INSS) This allows workers classified under the "individual contributor⁶" and "special fund⁷" categories, to choose their social insurance contribution rate. This is based on the contributor's work situation and job characteristics. Workers can contribute with a minimum fee of 20 percent of their minimum monthly or may choose a minimum contribution fee set at 11 percent (Fabio et al., 2013). Those contributing a lower rate (i.e. 11%) are not entitled to pension for years of contribution. The system also allows self-employed workers to change their contribution percentage whenever deemed necessary. INSS allows rural workers contributing under its "special fund" to vary their contributions, according to the variation in the market value of their produce. For these workers, the contribution fee is set at 2.3 per cent of the total marketing of produce. The beneficiaries under Brazil's "special fund" receive the same social benefits as other contributors on the country's General Social Welfare Scheme. Self-employed agricultural workers are assured of access to their such benefits during times of low agricultural productivity or in the event of crop loss for any reason. |
| Ghana | Ghana Cocoa Farmers Pension Scheme (CFPS) Cocoa Farmers Pension Scheme (CFPS) with the aim to register more than 1.5 million cocoa farmers and ensure that beneficiaries receive retirement benefits⁸. Requires registered cocoa farmers to make a 5 percent contribution of their produce whenever they make a sale. Farmers have an option to make an additional voluntary contribution in the range of 2.5 to 10 percent of whatever they produce to enhance their pension benefits⁹ |

⁶ includes independent workers and people performing unpaid activities

⁷ includes rural workers

⁸ https://www.ched.com.gh/website/farmers_pension.html
9 https://gna.org.gh/2023/03/cocobod-rolls-outcocoa-farmers-pensionscheme-targets-800000-cocoa-farmers/

| Sri Lanka | Sri Lanka's farmers and fishermen pension schemes: Offer members the opportunity to make bi-annual contributions or one-off contributions per year (for farmers) Allows for quarterly contributions or one-off contributions per year (for fishermen). These arrangements aim to cater for the seasonal aspects associated with agricultural products as well as fishing activities. Farmers can make sufficient upfront contributions during harvest seasons to cater for planting and unfavourable seasons caused by weather conditions |
|-----------|---|
| Uganda | Despite the recent reforms in Uganda's NSSF Act (as amended in 2022) to cover all employees, there are no regulations to effect collection of social security contributions from informal workers. |

Source: Adapted from Durán-Valverde et al., 2013 and ILO (2021)

5.3. Mandatory registration of farmers

The declaration of mandatory social contribution payments by farmers is an important cornerstone to expanding coverage. It promotes inclusivity by ensuring that even the most vulnerable agricultural farmers in rural areas are covered under national social security schemes. It further reduces inequalities between rural and urban farming populations. Several countries (refer to information Box 3) have amended their social security laws to ensure mandatory rather than voluntary contribution. Voluntary registration remains widespread among many Sub-Saharan Africa countries and is said to compound the challenge of low coverage rates (Durán-Valverde et al., 2013).

| Box 3: How n | nandatory social contribution payments in different countries are implemented |
|--------------------|--|
| Cape Verde Rica | In 2009, Cape Verde reformed its social security law to ensure mandatory contribution for all self- employed workers under 45 years for women and under 50 years for men (ILO, 2021a). |
| Costa Rica | Enacted the law of worker protection - establishing the mandatory registration in social insurance for independent workers, and all employed population (Durán-Valverde et al., (2013). The aim of the reform was to strengthen mechanisms of contributory control, and to fight contribution evasion (ibid). With the enactment of the law, Costa Rica put in place targets to expand contributory coverage of independent workers to a 70 per cent level in 10 years¹⁰. To realise the above targets, the country undertook a series of actions - which included recruitment of 247 new positions¹¹ of inspectors to re-enforce mandatory registration and contribution payments for both employed and self-employed workers. To effect and expand coverage, Costa Rica undertook the following: Wide-scale investment in a national wide infrastructure to improve inspection, administration, registration and collection of contributions from several economic sectors The country heavily invested in technology and numerous social security inspectors across the country, allowing for an extension of contributory coverage for both formal and self-employer workers across the entire country |
| Philippines | Philippines's social security system is mandatory. Coverage of self-employed workers (independent professionals, business owners, farmers, fishermen, arts professionals, professional athletes, street vendors) is mandatory. Mandatory registration has significantly increased enrollment from 1.3 million in 2000 to 1.5 million by 2009. |

Source: Adapted from Durán-Valverde et al., 2013 and ILO (2021)

¹⁰ The law also targeted increasing contributory coverage of employers to an 88 per cent level within a six year period, by incorporating 115,886 micro companies.

¹¹¹⁰⁵ for inspectors in charge of employers' mandatory registration, 20 for inspectors reinforcing mandatory registration for independent workers, 5 for platform staff, in charge of independent workers voluntarily choosing to register, and 117 to reinforce the control of payment deadlines (58 for the employers' area, and 59 for the independent workers' area). To complement this allocation of human resources, the programme also considered the financing of the physical, material, and technological resources necessary to implement such a strategy.

5.3.1. Challenges to adopting mandatory registration of farmers in Uganda

Information from a KII with NSSF intimated that voluntary contribution within informal sector pension schemes is the main cause for the unsustainable mobilisation of long- term pension savings. Mobilising savings from farmers requires a mandatory scheme. However, sustaining a mandatory scheme requires reorganising and empowering some platforms (commodity buyers) in the agricultural sector to mobilise sufficient contributions from so many agricultural households. Indeed, during 12th the national forum, a stakeholder indicated as below.

".....From a farmer's perspective, the first challenge is that individual farmers — were not organised in any form of groups. These smallholder farmers are scattered and unorganised. So that is one challenge we have with smallholder farmers"

The second challenge is that many of them operate in the non-cash economy. Now, the way NSSF services were set up was to handle cash transactions. However, these small farmers mostly operate on a subsistence basis and are not set up to engage with the cash economy. The question is how to transition them into the cash economy, and once they were part of it, how to integrate them into any system KII, NSSF.

For instance, sugarcane mills and tea factories; Cocoa and Coffee cooperative societies and unions, and likewise the milk collection centres, and dairy processing plants for the dairy sub-sector could be leveraged. However, Uganda's social security legal framework does not mandate agricultural-related commodity buyers to retain part of the farmers' sales proceeds during payments. Instead, the current NSSF Act only restricts these value chain actors to retain 5% of the monthly salaries of only their formal staff for onward submission to NSSF. Besides, the existing social insurance schemes that target informal sector workers, i.e. KACITA provident and MAZIMA retirement, are private and voluntary, limiting full-scale coverage.

5.4. Incentives for expanding farmers' registration and contribution

Given the low and seasonal earning by farmers, most developing countries have provided incentives to farmers to encourage registration and sustained social insurance contribution. Below is a discussion of some of the incentives. Within the framework of the Ghana cocoa farmers pension scheme, the COCOBOD, offers a minimum supplementary contribution of 1 percent of the farmers' produce as a means of encouraging participation. Furthermore, the pension scheme permits short term withdrawals of savings to a tune of 50 percent of savings. Other more developed agriculture schemes tend to offer even more incentives. For instance, Sri Lanka's farmers and pension schemes offer survivor benefits to spouses upon the death of the scheme member. In addition, the scheme makes provisions for a lump sum gratuity in the event of permanent or partial disablement, and it offers support to dependents in the event of demise, including surviving spouses (ILO, 2008). These incentives appear to take care of potential risks that may occur during a scheme members life before they reach retirement.

In other informal sector schemes like Ejoheza, the Rwandan government provides a matching contribution of up to RF 18,000 (USD 14) per annum during the first three years, in addition to a complimentary life insurance policy and a RF 250,000 (USD 776,000) funeral insurance policy (Guven, 2019). Moreover, the scheme members can access 40 percent of the savings for housing and education or as collateral for a loan (FSD, 2023). The scheme also allows members to withdraw in the short term (25% of savings), however, only under some contribution levels (FSD, 2023)¹². Such incentives can be very attractive to the target group as they seem to cater for various issues faced by individuals in the informal sector. In fact, as of March 2023, Ejoheza had enrolled 3.1 million individuals in the scheme and has received global recognition following its rapid increase in coverage¹³

¹²⁰nly members with savings of more than RF 4million (USD 3,701).

¹³ https://www.rssb.rw/rwanda-s-long-term-savings-scheme-gets-merit-certificate-from-issa

Similarly, in Uganda, the informal schemes allow for short term withdrawals as a means of incentivising the members. Specifically, withdrawals can be made after the first six months under MAZIMA whereas in KACITA, members can make 100% withdrawals after the first year of contributing (Guven, 2019). However, there is no mention of any additional means of incentivising their members. At the forum, participants emphasized the role of incentivising as explained below

"compliance with contributory social insurance plans is closely related to income levels and yet farmers' incomes vary significantly. So flexible contribution plans should be designed to accommodate seasonal income fluctuations. The payment processes also need to be simplified. Compliance should be incentivised with additional benefits to encourage farmers' participation. Provide some form of credit or grant to support farmers, entities...."

Indeed, compared to the schemes in other countries, it could be argued that there is a need for more ways of incentivising informal sector individuals in Uganda. Moreover, where individuals in the agriculture sector are considered, a thorough examination of their needs is required to develop relevant incentives as pointed out by one of the participants at 12th annual forum

"Short term access to farmers is critical to entice farmers into saving. The system should be made in such a way that it can be able to give back to farmers at a specified time period such that farmers can practice how to access and use their savings....."

5.5 Special mechanisms for collecting contributions

Several developing countries have devised various social contribution collection mechanisms to ease contribution collection as well as payment of determined insurance benefits for self -employed agricultural workers.

5.5.1. Colombia

Colombia devised an integrated form of contribution settlement (PILA). It is basically an electronic platform that enables payments of social insurance contribution to the central social insurance fund, the General System of Social security. It is used by both employed and independent workers. This system enables users to make social insurance contributions to several social system subsystems (such as health, pension, hazards) in a unified way, thus saving time. In Colombia, payment through this system is mandatory, which ensures effective control and supervision of contributors. This system has an additional feature, the "Assisted form" which enables contributors without access to computers and internet to make their contributors by mobile phones, with the assistance of a human telephone operator.

Besides PILA, Colombia also adopted the *Single Registry* of *Contributors* to ease supervision and control of the country's social security system. The tool enables the cross-referencing of contributory information for workers registered in the different social security plans (Health, Pensions, and Professional Hazards). It aims to detect social contribution irregularities such as contribution payment evasion and multi-registering, among others. Whenever, such irregular cases are detected, the information is reported and corrected.

5.5.2. Costa Rica

To expand coverage, Costa Rica undertook wide scale investment in a national wide infrastructure to improve inspection, administration, registration and collection of contributions from several economic sectors. Besides human resources, the country heavily invested in physical and technological resources to make its strategy a success. Specifically, the investment in sufficiently large number of social security inspectors across the country, allowed for extension of contributory coverage for both formal and self-employer workers across the entire country.

6.0 CONCLUSION AND EMERGING POLICY OPTIONS

6.1. Conclusion

This study provides an assessment of the feasibility of a contributory social insurance scheme for Uganda's farmers. It aimed to fulfil three objectives namely, examine the gaps in the policy, legal and regulatory frameworks limiting contributory social insurance schemes for farmers; examine farmers' income characteristics to gauge contributory capacity and explore innovative models that other developing countries have undertaken to expand contributory social insurance for farmers.

Regarding income, farmers engaged in the banana enterprise earned the highest income followed by coffee and maize. The saved income increases with the scale of operation (land size/ number of cows). Small farmers operating on less than 3 acres retain lower incomes than their counterparts operating on land sizes above 3 acres. Likewise, households with more than 10 cows retain higher income than their counterpart with fewer animals. Concerning lifecycle, farmers aged between 31-64 earn relatively larger incomes than those aged between 18-31 years and those above 64 years. However, the median household income remains small that often could not incentivise saving, whether mandatory or voluntary, and is highly unstable between seasons. The study emphasizes the need to enable farmers' effective contribution to social insurance by commercializing farming activities to generate disposable income for savings.

Concerning, innovative approaches to extending social insurance, the study findings reveal that adopting the Costa Rican collective insurance agreements, requires Uganda as a first step to leverage the existing out grower- commodity buyer institutional platforms to overcome the weakness brought above by lack of strong functional agricultural cooperatives. In this regard, Uganda would need to reorganise and empower

agricultural (commodity buyers) platforms such as sugarcane mills and tea factories; Cocoa and Coffee cooperative societies and unions, and likewise the milk collection centres, and dairy processing plants for the dairy sub-sector could be leveraged. It should be noted that the proposed arrangements are not new in Uganda, they only need promoting and strengthening NSSF governance and accountability structures.

In designing of the scheme for farmers, there is need for the regulators to pay kin attention to operations of the middlemen, which make it hard to trace commodities sold to a central commodity buyer. Middlemen usually aggregate commodities on behalf of the farmers from different locations and sell them to processors (commodity buyers).

Lastly, bringing on board farmers to contributory social insurance schemes shall require reforms within the existing social security regulatory environment. Particularly, this shall require amending the existing regulatory environment that is leaning toward the formal sector to expedite regulations for the recently amended NSSF Act to operationalise the requirement to enrol self-employed workers. Uganda will further have to come with suitable social insurance incentives for farmers to drive registration and encourage sustained contribution.

6.2. Emerging Policy Options

This study suggests that designing contributory social insurance schemes for farmers in Uganda should take into consideration the following:

(i) Start with farmers in a few selected highincome generating agricultural value chains like banana, coffee, sugarcane, dairy, tea and maize enterprises that retain a sizeable income. Tea, for example has a regular flow of income on a monthly basis since its harvested throughout the year. These value chains also have organised farmers in cooperatives and have existing outgrower-commodity buyer institutional frameworks. This will entail partnering with

- cooperatives, processors, aggregators that work directly with farmers to increase compliance and reduce administrative costs.
- (ii) Matching contributions from farmers is necessary: Given the low and irregular incomes registered by farmers, encouraging enrolment in social insurance schemes may require subsiding of their contributions for the start to guarantee affordability. Tiered contribution systems, based on farmers' income levels or farm size, can prevent overburdening smaller-scale farmers. Moreover, micro-contribution schemes, where farmers make small, incremental payments over time, could make the system more affordable.
- (iii) Expedite the passing of the regulations to cover self-employed workers in the recently amended National Social Security Act: The ministries responsible for social security in Uganda (MoFPED and MoGLSD) need to fasten the regulations to operationalise coverage of self-employed workers in the recently amended NSSF Act. The regulations shall also enable the NSSF to undertake many of the innovations as well as reforms that other countries have already undertaken to expand coverage to self-employed workers.
- (iv) Comprehensive education and awareness campaigns are necessary to ensure that farmers understand the benefits of contributing to social insurance. These campaigns should focus on both short- and long-term advantages, such as pension security, health benefits, and support during times of economic hardship. Ugandan farmers believe the Uganda Revenue Authority taxes their NSSF contributions. Farmers fear making retirement contributions because of the perception that withdrawing money from the NSSF involves a lengthy bureaucratic process. Local agricultural extension services or farmer cooperatives can play an essential role in disseminating this information.

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Economic Policy Research Centre
Plot 51, Pool Road, Makerere University Campus
P.O. Box 7841, Kampala, Uganda
Tel: +256-414-541023/4, Fax: +256-414-541022 Email: eprc@eprcug.org, Web: www.eprcug.org