
Does Tanzania Succeed in Sectoral Cooperation among Cooperatives in the Post-Covid -19 Recovery?

Damian Sambuo

Moshi Co-operative University, Tanzania, Email: damiansambuo548@gmail.com

Abstract

COVID-19 disrupted the global economy and escalated poverty across countries, Tanzania inclusive. In noting the sixth cooperative principle, cooperation among cooperatives with inclusions of other economic sectors remains inevitable to fight this disruption. The present study examined socio-economic cooperation among cooperatives during the post-Covid-19 era. The theory of change was employed supported by a convenience sampling of coop's actor websites and Mobile phone interviews to collect appropriate data. Data were analysed by using content analysis approach. This study found that there is a direct description of how the sixth principle commensurate with Co-operative Societies Act No. 6 of 2013. Partners were establishing cooperation for provision of health insurance scheme services 'Ushirika Afya'; re-born of the Tanzania National Co-operative Bank-NCB. Other cooperation aimed to improve direct export crops and market access between Tanzania cooperative development commission and Tanzania trade development authority. The cooperation of East Africa Country's universities contributes to the expansion of Cooperative education. The promotion of coops insurance education program 'Ushirika Afya' to the national level is a means to attract other firms. Co-operatives are recommended to advocate the purchase of shares, collective securities, and bonds to widen cooperation with other co-operators. Policymakers, regulatory authorities, and stakeholders should adhere to a Covi-19 'new normal' by reviewing laws and regulations.

Keywords: Co-operatives; Principles; Cooperation; Covid-19; Tanzania

AJCDT, Vol. 7 No. 1 (December, 2022), pp. 112 – 121, ©2022 Author

INTRODUCTION

The world is recovering from the effects of Coronavirus disease pandemic (COVID-19). As a result of the pandemic, the global economy was disrupted and poverty escalated across countries and exacerbating loss of lives (Lopez-Calva, 2020). In order to combat the economic disruption of the population and improve the health of the population, sectoral cooperation is essential. First reports of Coronavirus disease were made in Wuhan, Hubei Province, China, in December 2019 (Zu *et al.*, 2020). The pandemic grew

exponentially affecting the least developing countries and the G7 economies.

In addition to other profit-oriented corporate shareholders, health insurance remains a critical component of all business sectors, including cooperatives. World Health Organisation (WHO) and other international health organisations have promoted access to health insurance services to individuals at all levels (Odeyemi and Nixon 2013; WHO, 2017). Yet available health services and health insurance have been low and unevenly accessed mostly by

co-operatives unions, farmers' groups, individuals, and enterprise organisations (Zhang *et al.*, 2019; Bhat *et al.*, 2018). AMCOS members in Tanzania are underserved when it comes to health insurance, despite their importance in boosting agricultural productivity (Anania and Bee, 2018). Predominantly, this situation exposes the economics of agriculture at risk (Issa, 2020; Kumburu and Pande, 2020; Mchopa *et al.*, 2020; Msuya and Mataba, 2021).

One of the business strategies for cooperative societies to tackle this global health insurance challenge is to collaborate with their rural producers. According to Zeng *et al.*, 2019, many challenges impede access for cooperative societies in Tanzania to guarantee health insurance services to their members. Munguti, *et al.*, (2020) explained that poor quality of care, social-economic preferences, improper funding mechanism, and regulatory or eligibility criteria (for private insurance) are some other factors that contribute to a low level of access to these services (Anania & Bee, 2018; Cobian *et al.*, 2020; Munguti 2020; Tang *et al.*, 2021). Access to health services through cooperation with rural producers serves as an opportunity for better social health outcomes by reducing the burden on a formal healthcare system that can be costly and prevent people from accessing needed medicine (Embrey *et al.*, 2021). By the year 2019, only 8% of Tanzanians had access to health insurance out of which 32% were members of other health schemes, including improved Community Health Fund (iCHF) (Embrey *et al.*, 2021).

The six principles of cooperatives are the basis for a successful future for the sector. This paper examined the application of the sixth principle in Tanzania sectoral co-operations. The focus is on various sectors

that have made use of this principle and succeeded well during and after covid 19 era.

Global cooperation among co-operatives in health sector

Literature shows that the existence of a health insurance system for cooperative farmers is not a new phenomenon. Chibueze (2014) recommends a need for countries to fast-track the process of health insurance adoption, especially for cooperative members which also will ensure sustainable agricultural development. With the same spirit, Japan reformed its social welfare policy to provide an insurance care system via a co-operative society (Kurimoto & Kumakura, 2016).

Similarly, Nepal introduced vegetable, poultry, and livestock farming groups to cooperative health care (Ranabhat *et al.*, 2017). In the same vein, China established a New Co-operative Medical Scheme (NCMS) which benefited 70% from government contribution and a relatively small contribution from farmers (Zhang *et al.*, 2019). While making efforts to improve the social welfare system is imperative, in a developing country like Tanzania, it is also pertinent to emphasize the efficiency and effectiveness of access to health services and their connection with agricultural production of rural farmers.

Theory of change toward post-covid-19 era

The 'theory of change' has been useful in explaining how partners and stakeholders can identify objectives and activities for collaboration (Thornton *et al.*, 2017). It is also associated with how planning and proper decisions can contribute to development changes and adaptation responses to development issues (Rogers, 2014). Justification for public resource utilization to resolve economic disruption can be explained well by the theory of change. The theory is

assumed to be based on qualitative and quantitative monitoring, impact evaluation, and learning systems that explore the relationship between behavior changes and development strategies (Thornton *et al.*, 2017).

With regards to the impact of Covid 19, the potential contributions of cooperation among co-operatives might not be underestimated. The theory advocates identification and understanding of the actions or activities required to achieve intended impacts. Hence, cooperatives may choose the intervention level of their choice to resolve economic disruption and improve cooperation for development. Using the theory of change, Abbadi *et al.*, (2021) concluded that mass on-the-job training programs were a key intervention for community initiatives to curb economic challenges caused by COVID-19. Kettunen, (2021) incorporated the theory of change as systematic thinking to develop programs that promote women economically and socially. The theory guides stakeholders' cooperation for sustainability through entrepreneurship and enterprise development.

The present study analysed cooperation opportunities in the Tanzania Cooperative Societies Act 2013, market access via direct export, health insurance programs, and the formation of the national cooperative bank for the promotion of social and economic gains among co-operators during the post-covid 19 era. Thus, the "theory of change" guides the negotiation of an economic policy for attaining the sectoral goal(s) for the impact of co-operation.

METHODOLOGY

Using a cross-sectional research design, data were collected from six coop sectors' websites at a single point in time. As a result

of the design, several themes related to sectoral cooperation during the post-COVID-19 era could be collected. Participants in the study were all stakeholders in Tanzanian cooperatives. Purposive sampling was employed to select respondents, specifically those with Web-based content that fosters cooperation. The selected sampling frame was Agricultural and Marketing Co-operatives (AMCOS), Financial Institutions, National Health Insurance Fund, and Tanzania Cooperative Development Commission (TCDC). Others are Co-operative Audit and Supervision Corporation (COASCO), Savings and Credit Co-Operative Union League of Tanzania (SCCULT), Tanzania Federation of Co-operatives (TFC), and the Ministry of agricultural livestock and fisheries.

The main data collection methods are reviews of published literature and telephone interviews. Data reduction was employed through selecting the content of our interest, information summary, and paraphrasing. Websites with key words such as 'cooperation', 'collaboration', 'joint effort', 'partnering', and 'implementation partners' were specifically visited and searched, with a time range starting in 2018. Coding of the data was the initial step to ensure information sources can later be retrieved from other sources followed by memoing. The content analysis approach was used to transcribe and classify the relevant segments of the Web text and locate them into different coded themes. The themes are cooperation status from the co-operatives act, benefits of cooperation, national cooperative bank, and cooperation on health insurance schemes.

RESULTS

Implementation status of the 6th cooperative principle

Cooperative development in Tanzania is guided by the Cooperative Societies Act, 6 of 2013. This Act aligns with principle no 6 by recognizing and mentioning some of the pillars of cooperatives, their roles and responsibilities in the country. Empirically, pillars that foster cooperative development in and outside the country include Moshi Cooperative University as a knowledge institution; TCDC as a regulator and supervisory organ; COASCO as an audit organ. SCCULT and TFC are both umbrella organizations for cooperatives in the financial and agricultural sectors, respectively.

The Act also provides for the establishment of cooperative development offices by every sectoral ministry, regional secretariat, and local government authority. The Act requires that offices be allocated resources for the efficient discharge of their functions. Few sectoral ministries have made such achievements, such as the ministry responsible for land, minerals, housing, fisheries, irrigation, and industries. The establishment of the desk office in the ministerial structure provides an opportunity to extend cooperation between ministries: fishery cooperatives and industrial cooperatives; housing cooperatives with SACCOs. Other types of cooperation can be between irrigation cooperatives and industrial cooperatives.

Following the Covid-19 recovery strategy, other efforts have included the development of a training plan for cooperative societies. The aim was to ensure required skills and knowledge management are supervised and coordinated by the Cooperative Education and Training Committee from the national level to the local

level (TCDC, 2022a). This provides room for curriculum development that will support collaborative development in Tanzania. Regarding the Act, MoCU as the key cooperative actor in training cooperative education in Tanzania is not explicitly mandated to do so in the Act. The existing cooperation is through an MoU between MoCU and TCDC.

Further, the Act provides room for a cooperative to allocate 20% capital for investment shares. The post-pandemic era is an excellent opportunity to work with subsidiaries or any other shareholding company. Most cooperative societies, however, suffer from inadequate knowledge of investment portfolios, as quoted in an interview. It was said, 'Depending on the investment portfolio, cooperatives can invest 20% of capital shares in a shareholding company. The company may earn dividends if it performs better in business and vice versa, but these practices are rarely reported'. (Donge, MoCU 2022).

Success in sectoral cooperation among cooperatives in Tanzania

Cooperative commission with Tantrade

Tanzania's cooperative development sector has seen several collaborations established to ensure the business sector is nourished. Concerning the importance of market access, which is the main challenge for many farmers, efforts have been made by the Tanzania Trade Development Authority (TanTrade) and TCDC to establish collaboration. The aim is to improve external market access, especially for cooperative societies (TCDC, 2022b). Tantrade is a regulatory body responsible for developing and promoting both internal and external trade in Tanzania.

Coops collaboration on crops direct export

Efforts have been made by the government to improve local market access for coffee agricultural and marketing cooperatives by establishing market zones. There were four coffee Zones Auction markets established by 2022, which are Songwe zone which constitutes of Songwe, Mbeya, and Katavi regions; Kagera zone formed by Kagera, Kigoma, Mara, and Mwanza; Ruvuma zone which is formed by Ruvuma, Iringa and Njombe and the fourth zone is Kilimanjaro - Kilimanjaro, Arusha, Manyara and Morogoro regions (TCB, 2019).

The advantage of the zonal system includes a reduction in coffee transport costs to the central market. It also increases the participation of cooperatives in auction markets, and opens up investment and other opportunities. Additionally, AMCOS has experienced market opportunities such as direct exports of coffee at a better price than the auction market price. Direct export of coffee was also found to be an opportunity for long-term market assurance. Among the AMCOS are Lukani Losaa, Kikamabu, Kairu, Kiruruma, Bushangaro, Kituntu/Igurwa, Ndama and Kishoju. During an interview with TCDC marketing officer, successful regions for direct export are Kilimanjaro, Kagera, Songwe, and Mbeya. However, the current zonal system is faced with dependence on private companies and agencies to issue contracts and meet the quality specifications (TCB, 2019).

Establishment of National Co-operative Bank

The national debate for establishing a National Co-operative Bank-NCB was found to be successful. Success was also on sensitization made by the government of Tanzania for upgrading Kilimanjaro Co-

operative Bank Limited (KCBL) to a National cooperative bank. Cooperations initiatives were made by CRDB bank, Moshi Co-operative University and KCBL. Members 'wananchi' were also mobilized to buy KCBL shares amounting to TZS 15 billion for the establishment of the national cooperative bank during the National debate (Chuwa, 2022). Despite pandemic attacks, KCBL stakeholders increased by 3,700 members at the end of 2021, and non-performing loans were reduced by 71% (Chuwa, 2022). In addition, Tanzania Federation of Cooperatives(TFC) made efforts for the NCB establishment by contributing a total of TZS 443,997,550 from its members (TCDC, 2022).

National health insurance cooperation with Cooperatives

Tanzania has made efforts through its regulatory organ and other agencies to ensure farmers have access to health insurance services. The National Health Insurance Fund (NHIF) in Tanzania, for instance, initiated a cooperative health program known in Kiswahili as '*Ushirika Afya*' by partnering with Kilimanjaro Co-operative Bank Limited (KCBL), CRDB Bank, and National Commercial Bank (NBC).

In this program, members of AMCOS can access a health insurance card for 76,800 Tanzanian Shillings. In turn, this amount will be deducted directly from the member's bank account upon selling their farm products (cotton, cashew nuts, coffee, and maize) (NHIF, 2021). To provide adequate funding for health insurance services, banks, unions, and AMCOS should establish financial ties. Therefore, cooperative principle number 6 'cooperation among co-operators' is hereby made useful to extend the role of AMCOS members in leveraging the opportunities

provided by NHIF and banks in increasing health insurance coverage for farmers in Tanzania.

East Africa Universities cooperation in co-operative education

Cooperative education skills have been widely spread during the post-Covid-19 era through the cooperation of East Africa Community (EAC) member states. EAC has managed to promote inter-university cooperation in the education area through students' mobility and exchange programs. An interview with an admissions officer at the Moshi Co-operative University revealed that the University had contributed to the promotion of cooperative education at the higher education level. The fact is that student enrollment is expected to increase from four students in academic year 2019/20 to thirteen students in academic year 2021/2022. Only one student was enrolled in academic year 2020/21 due to the increase in Covid-19 crisis. A foreigner window at Moshi Co-operative University was enrolled by approximately 18 students as a result of member state cooperation.

Challenges to sectoral cooperation

While the study narrates how Tanzania succeeds in sectoral cooperation, it also highlights challenges. This study found that a memorandum of understanding (MoU) between two or more parties is the solution to tackle local or national cooperation issues between or within partners. However, there is no institutional coordination framework or coordination structure among cooperative stakeholders. Other related challenges are inadequate institutional policies and regulations that guide cooperation among partners in related activities. To achieve the partners' collaboration target, sustainable

operationalization of MoUs remains a challenge.

The contradiction of political decisions in relation to registered cooperatives has also been experienced and is contrary to the Cooperative Society Act, 2013. Cooperation among cooperatives is addressed at both the national and local levels. Heads of Regions, Districts, and local authorities have authority that outperforms usual practices of cooperative cooperation, especially when deciding on corruption, theft, and governance in cooperative societies (Aman, n.d.).

Concerning cooperation opportunities around EAC member states, one of the challenges of cross-border trade is the availability of a legal framework that caters to the borders' trade barriers. If the East Africa Community (EAC) Co-operative Society Act, 2014 is assented by the EAC Heads of State, it could provide a solution and expand the movement within the EAC (Oliech & Owoko, 2018). Currently, the Act, 2014 is not operational, hindering the collaboration of EA Co-operators.

Co-operatives and financial institutions failed to play a promotion and coordination role regarding the expansion of the cooperative insurance health program in Tanzania. This led to the question of 'Whose promotion role is it?' and by the time this study was conducted only Mtwara, Arusha, and Shinyanga regions were being covered by 'Ushirika Afya Program' out of 26 Regions.

Co-operation among co-operatives in Tanzania lacks the centripetal force that could be rostering stakeholders and other actors in the circular flow of cooperative movement in connection with cooperative principle number six. A centripetal force like this could be performed effectively by the

Tanzania Federation of Co-operatives - 'the movement'.

CONCLUSION

Improving economic growth with a focus on increasing cooperation among co-operators requires an impact evaluation of both members and non-members in a respective sector. Therefore, the usefulness of the Randomized Controlled Trial (RCT) design is appropriate for a randomly selected coop. This paper, therefore, concluded that there is a need for a further study on coops, especially those receiving health insurance services from the 'Ushirika Afya' program. The control group that includes non-members of the health insurance scheme may be studied to analyse the impact of cooperative principle number six among beneficiaries using a checklist tool (Ogundeji *et al.*, 2019).

The effectiveness of sectoral policy interventions based on the impact of cooperation can be established by employing Differences-in Differences (DD) approaches (Meyer 1995; Buckley and Shang, 2002). DD can examine 'Ushirika Afya' between health insured and non-insured farmers in this study, for example. Similarly, principle number six is applied in other sectors. Adoption of the DD approach is recommended because of its ability to compare policy outcomes before and after cooperation among cooperatives and that comparison can start at different levels of outcome (Buckley & Shang, 2002).

Study contributions

It was found that the means of increasing cooperation among cooperatives in the post-Covid 19 eras were successful in Tanzania's health sector. The introduction of cooperative health insurance by NHIF remains the most effective and relatively inexpensive because of its associated low cost and self-participation. It is the best almost effective each

to achieve universal health coverage (SDG Target 3.8) as well as satisfies principle number 6 of cooperatives. Furthermore, cooperation with the World Bank (World Bank, 2021) complemented the health facilities program via Covid-19 funds in improving the social welfare system in Tanzania. By introduction of the coop health insurance program, coop members will benefit and agricultural economic activities will improve. Therefore, the coop principle number six promotes and ensures healthy lives and well-being at all ages (Lambrecht, 2016). Further, it allows room for the expansion of a dialogue forum and creates a linkage between health insurance provision parastatals and other cooperative sectors. The theory of change also contributed to the coop's adaptation to the revised health insurance model. By evaluating the strengths and weaknesses of the health insurance program, we can determine whether it has improved coop members' livelihoods as social enterprises for receiving health care.

RECOMMENDATIONS

In this paper, it is recommended that cooperative member health insurance education and sensitization of 'Ushirika Afya' programs be provided to advance cooperation with other insurance companies. Alliances and cooperatives should focus on increasing market shares by 20% to widen cooperation with other corporate companies or subsidiary companies. Policymakers, regulatory authorities, and stakeholders should adhere to a Covid-19 'new normal', putting in practice laws and regulations that govern cooperation among co-operators and with other development actors.

REFERENCES

Abbadi, H., Sawaguchi, M., & Yassin, E. (2021). Theory of Change for Exploring

- the Potential Role of Rural Women's Social Inclusion for Temporary Economic Recovery after COVID-19: Evidence from Awni Village in Egypt. *International Journal of Japan Association for Management Systems*, 13(1), 35–48. doi.org/10.14790/IJAMS.13.35.
- Aman, F. (n.d.). Kafulila suspends cooperatives officer, dissolves co-op societies. *Dailynews*, 28/05/2022. Retrieved May 09, 2022 from <https://dailynews.co.tz/news/2022-05-096278b57e4560f.aspx>.
- Anania, P., & Bee, F. K. (2018). Emerging global trends and the opportunities for African co-operatives in improving members' wellbeing. *Journal of Co-Operative and Business Studies (JCBS)*, 1(1), 1–22. Retrieved March 28, 2022 from <https://mocu.ac.tz/wp-content/uploads/2019/12/VOLUME-2-ISSUE-1-2018.pdf>.
- Bhat, R., Holtz, J., & Avila, C. (2018). Reaching the missing middle: Ensuring health coverage for India's urban poor. *Health Systems & Reform*, 4(2), 125–135. doi.org/10.1080/23288604.2018.1445425.
- Buckley, J., & Shang, Y. (2002). Estimating policy and program effects with observational data: the “differences-in-differences” estimator. *Practical Assessment, Research, and Evaluation*, 8(1), 24. doi.org/10.7275/dwxt-zv80.
- Chibueze, O. (2014). Cooperative effect and adoption of Health Care Insurance: A study of NHIS in Eastern Nigeria, 4(5), 132–140. Retrieved from <http://scholarly-journals.com/sjba/archive/2014/September/pdf/Onuoha.pdf>.
- Chuwa, H. (2022). KBCL tipped to become national cooperative bank. *Dailynews*, 26/04/2022. Retrieved from www.dailynews.co.tz/news/2022-04-266267e5f924e8f.aspx.
- Cobian, J., González, M. G., Cao, Y. J., Xu, H., Li, R., Mendis, M., Becerra, A. Z. (2020). Changes in Health Insurance Coverage over time by immigration status among US Older Adults, 1992-2016. *JAMA Network Open*, 3(3), 1–11. doi.org/10.1001/jamanetworkopen.2020.0731.
- Embrey, M., Mbwasi, R., Shekalaghe, E., Liana, J., Kimatta, S., Ignace, G., Dillip, A. and Hafner, T., (2021). National Health Insurance Fund's relationship to retail drug outlets: a Tanzania case study. *Journal of Pharmaceutical Policy and Practice*, 14(1), 1–12. doi.org/10.1186/s40545-021-00303-0.
- Issa, H. (2020). Assessing the Performance of agricultural marketing cooperatives societies in Mbinga District, Tanzania. Mzumbe University. Retrieved March 28, 2022 from http://scholar.mzumbe.ac.tz/bitstream/handle/11192/4843/MAEB-DCC_HusseinIssa_2020.pdf?sequence=1.
- Kabbiri, R., Dora, M., Kumar, V., Elepu, G., & Gellynck, X. (2018). Mobile phone adoption in agri-food sector: Are farmers in Sub-Saharan Africa connected? *Technological Forecasting and Social Change*, 131, 253–261. doi.org/10.1016/j.techfore.2017.12.010.
- Kettunen, J. (n.d.). *Building livelihood resilience in Kenya, Somalia and Ethiopia .Theory of change and results matrix for the International Solidarity Foundation's development cooperation programme*. Retrieved May 21, 2022 from <https://urn.fi/URN:NBN:fi:amk-2021110419271>.
- Kumburu, N. P., & Pande, V. (2020). Rural

- Transformation Through Savings and Credit Cooperative Societies in Moshi District, Tanzania. *The Palgrave Handbook of Agricultural and Rural Development in Africa* (pp. 313–338). Springer.
- Kurimoto, A., & Kumakura, Y. (2016). Emergence and evolution of cooperatives for elderly care in Japan. *International Review of Sociology*, 26(1), 48–68. doi.org/10.1080/03906701.2016.1148341.
- Lambrecht, J. (2016). *Universal Health Coverage in Tanzania: Evaluating the potential of a Public-Private Partnership in Tanzania's health financing system. The Lancet Global Health*. Retrieved from www.scripriebank.be/sites/default/files/thesis/2017-10/Masterproof_Jon_Lambrecht.pdf.
- Mchopa, A. D., Machimu, G. M., Kazungu, I. E., & Mosongo, E. O. (2020). Contribution of co-operatives towards improving food security in rural Tanzania: Implications of horizontal integration practices. *African Journal of Co-Operative Development and Technology*, 5(1), 28–36. Retrieved April 26, 2022 from <https://journals.cuk.ac.ke/index.php/12/article/view/36>.
- Meyer, B. D. (1995). Natural and quasi-experiments in economics. *Journal of Business & Economic Statistics*, 13(2), 151–161. doi.org/10.2307/1392369.
- Msuya, R. I., & Mataba, L. (2021). Individuals' determinants of participation in Savings and Credit Co-operative Societies in Mwanza and Tabora Rural Areas, Tanzania. *African Journal of Co-Operative Development and Technology*, 6(1), 35–48.
- Munguti Dennis. (2020). Perceptions of households towards Health Insurance and their implication to enrolment, Kenya. Retrieved May 5th 2022 from http://erepository.uonbi.ac.ke/bitstream/handle/11295/153889/Munguti_Perceptions_of_Households_Towards_Health_Insurance_and_Their_Implication_to_Enrolment%2C_Kenya..pdf?sequence=1&isAllowed=y.
- Odeyemi, I., & Nixon, J. (2013). Assessing equity in health care through the national health insurance schemes of Nigeria and Ghana: A review-based comparative analysis. *International Journal for Equity in Health*, 12(1), 1–18. doi.org/10.1186/1475-9276-12-9.
- Ogundeji, Y. K., Ohiri, K., & Agidani, A. (2019). A checklist for designing health insurance programmes - A proposed guidelines for Nigerian states. *Health Research Policy and Systems*, 17(1), 1–13. doi.org/10.1186/s12961-019-0480-8.
- Oliech, M., (2018). Co-operation between cooperatives in East Africa: The impact of the East African Community Cooperative Societies Act, 2014. 197.136.53.61, 3(1), 51–57. Retrieved May 03, 2022 from <http://197.136.53.61/index.php/12/article/view/18>.
- Ranabhat, C. L., Kim, C.-B., Singh, D. R., & Park, M. B. (2017). A comparative study on outcome of government and co-operative community-based health insurance in Nepal. *Frontiers in Public Health*, 5, 250. doi.org/10.3389/fpubh.2017.00250.
- Rogers, P. (2014). *Theory of change: methodological briefs-impact evaluation No. 2, Methodological Briefs*, no. 2. Retrieved April 22, 2022 from [\www.unicef-irc.org/publications/747-theory-of-change-methodological-briefs-

- impact-evaluation-no-2.html].
- Tang, Y., Cai, H., & Liu, R. (2021). Farmers' demand for informal risk management strategy and weather index insurance: Evidence from china. *International Journal of Disaster Risk Science*, 12(2), 281–297. doi.org/10.1007/s13753-021-00335-9.
- TCDC. (2022). Establishment of national cooperative bank. Retrieved April 15, 2022, from [www.ushirika.go.tz/index.php/resources/view/benki-ya-taifa-ya-ushirika-kuanzishwa].
- Thornton, P. K., Schuetz, T., Förch, W., Cramer, L., Abreu, D., Vermeulen, S., & Campbell, B. M. (2017). Responding to global change: A theory of change approach to making agricultural research for development outcome-based. *Agricultural Systems*, (152), 145–153. https://doi.org/10.1016/J.AGSY.2017.01.005.
- Zeng, Y., Li, J., Yuan, Z., & Fang, Y. (2019). The effect of China's new cooperative medical scheme on health expenditures among the rural elderly. *International Journal for Equity in Health*, 18(1), 1–10. doi.org/10.1186/s12939-019-0933-2.
- Zhang, S., Chen, Q., & Zhang, B. (2019). Understanding healthcare utilization in China through the Andersen behavioral model: review of evidence from the China health and nutrition survey. *Risk Management and Healthcare Policy*, 12: 209–224. doi: [10.2147/RMHP.S218661](https://doi.org/10.2147/RMHP.S218661).
- WHO (2017). Global action plan on the public health response to dementia 2017–2025. World Health Organisation. Retrieved March 23, 2022 from <https://www.who.int/publications/i/item/global-action-plan-on-the-public-health-response-to-dementia-2017-2025>