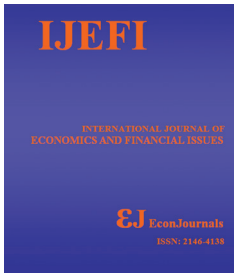

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# Design and Implementation of Social Safety Nets in Tanzania: A Systematic Review

**Basil Msuha[1,2]*, Luitfred D. Kissoly[2], Arnold Kihaule[2]**

[1]Tanzania Agricultural Research Institute (TARI), Head Office (Makutupora), Dodoma, Tanzania, [2]Ardhi University, Department of Economics and Social Studies, School of Spatial Planning and Social Sciences, Tanzania. *Email: basil.msuha@gmail.com

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**ABSTRACT**

Social safety nets (SSNs) in Africa have become a key strategy for addressing poverty and vulnerability. However, the effectiveness of this policy instrument is dependent on design and implementation features. Much of the evidence on the design and implementation of SSNs from systematic literature reviews is skewed toward Latin America, Asia, and to a limited extent, Africa. Using preferred reporting items for systematic reviews and meta-analyses (PRISMA) methodology we aim to address this gap. Based on evidence extracted from 17 studies, we found more than 12 SSNs types in Tanzania, grouped into cash-based transfers, in-kind based transfers and public works which is consistent with the view that every country in Sub-Saharan Africa is implementing at least one type of SSNs. Subsequently, we found that the SSNs do not have recertification program because most them were designed as time-bound, for which recertification was not necessary; and they were initially conceived to alleviate chronic poverty; thus, a maximum duration was not needed. Yet, existing design and implementation features generates inefficiency through duplications and overlaps, and limits potential coverage and performance.

**Keywords:** Social Safety Nets, Cash Transfers, Public Works, Systematic Review, Design Features, Implementation Features
**JEL Classifications:** I3, I31, and I38

## 1. INTRODUCTION

Poverty and vulnerability remain persistent and complex phenomenon in developing countries and Africa in particular. In Sub-Saharan Africa for example, it is approximately that two people in every five live in poverty whereas many others are vulnerable to falling into poverty (Beegle et al., 2018a). In Tanzania 26.4% of the population live in poverty, whereas 8.0% are extremely poor (NBS, 2019). The social safety net programs (SSNs) have been launched in Africa since 2000s as part of the agenda to tackle poverty and vulnerability. Since 2003 Tanzania has been implementing various types of SSNs (Heslop and Hofmann, 2014; Smith, 2011). The effectiveness of SSNs is dependent on design and implementation features which is an essential but often overlooked aspect in SSNs literature (Margaret et al., 2008). Much of the evidence on the design and implementation of SSNs from systematic literature reviews is skewed toward Latin America, Asia, and to a limited extent, Africa.

The design and implementation feature of SSNs include aspects such as the type of SSNs, target groups, transfer value and frequency, coverage, duration of exposure, outcomes addressed, conditionality, targeting, payment mechanisms, and implementation challenges (Bastagli et al., 2016, 2019; World Bank, 2015, 2018). These aspects have been debated over the years among researchers, academicians, policymakers, and stakeholders (Fiszbein and Schady, 2009; Pawson et al., 2005; Slater, 2011). With regards to transfer value, some scholars argue that SSNs grants provided are too small to be able to push the extreme poor out of poverty (Berg and Cuong, 2011; Molyneux et al., 2016; Slater, 2011). This argument is framed on the international rule of thumb, which recommends transferring between 20 and 40%

of per-capita total poverty line to be meaningful to households (Berg and Cuong, 2011; Handa and Davis, 2006).

Well-established timing and frequency of social transfer payments play a critical role in the effectiveness of a social safety net. Likewise, it is also hypothesized that the characteristics of the target groups influence the intervention outcome (Fiszbein and Schady, 2009). On the other hand, the transfer duration matters a lot, and it is linked to the hypothesis of program graduation (Bastagli et al., 2016). Another mostly debated aspect is whether to impose a condition on beneficiaries of SSNs and whether they are helpful or not (Attanasio et al., 2015; Baird et al., 2014; Covarrubias et al., 2012; Davis et al., 2012; Gaarder, 2012; Schubert and Slater, 2006).

Concerning payment mechanisms, it is hypothesized that SSNs paid through electronic system can trigger saving behavior and access to formal credit, which in turn affect household investments (Bastagli et al., 2016; Merttens et al., 2013; Pearson et al., 2018). Given the rise of modern technology in Tanzania, we seek to answer what does the evidence suggest on the SSNs payment options available to policy-makers and are in use to reach targeted population? Regarding the SSNs option, there is no single recipe, and policymakers need to clearly understand the range of SSN options available (Margaret et al., 2008). Shedding light on various options implemented in Tanzania is crucial for policymakers in understanding the common interventions.

The available systematic review evidence on design and implementation of SSNs paint a global picture with limited disaggregation, and much of this focus narrowly on specific country contexts such as Tanzania (Bastagli et al., 2016, 2019; Van Daalen et al., 2022). Much of the evidence on the design and implementation of SSNs from systematic literature reviews is skewed toward Latin America, Asia, and to a limited extent, Africa. The current systematic review in the Tanzanian context is vital for social safety net providers, policymakers, and other practitioners. This group would otherwise be confronted by an overwhelming bulk of studies and available grey literature on which to base their decisions for designing and implementing SSN programs in the country. More specifically, this systematic review addresses two overarching research questions:

1. What are the types of social safety net interventions that have been or are being implemented in Tanzania?
2. What evidence of the design and implementation features of social safety net programs can be discerned in existing literature?

The review questions are framed based on the *population, intervention, comparison*, and *outcome* (PICO) framework for preparing review questions (Higgins et al., 2019; Shamseer et al., 2015)[1]. We do so in recognition that careful attention to designing and implementation of SSNs are crucial for achieving the desired outcomes (Margaret et al., 2008).

1 The Population-Intervention-Comparison-Outcome (PICO) framework is a preferred framework in systematic reviews aiding in framing the review question(s) (Higgins et al., 2019).

## 2. METHODS

The systematic review protocol which guided the implementation of this study was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) with registration number INPLASY202280074)[2]. The registration of the protocol was important for improving transparency, quality, and reducing duplication of systematic reviews among scholars (Dos Santos et al., 2020; Straus and Moher, 2010). Findings of this review are reported in accordance to the recommendations and procedures for systematic review protocols preparation established by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2015; Page et al., 2021; Shamseer et al., 2015).

### 2.1. Inclusion Criteria

The main study inclusion criteria were: study characteristics; and report characteristics. Within the study characteristics, our inclusion criteria followed "PICO framework" and the study setting (Higgins et al., 2019; Shamseer et al., 2015). Regarding report characteristics, we used years of publication and publication status (Shamseer et al., 2015). The detailed description of inclusion criteria is provided hereunder:

#### *2.1.1. Population*

Studies were included if they reported social safety nets on any one or all of the following groups the chronic poor, the transient poor, and vulnerable groups. These are the main population groups targeted SSNs, as the global accepted antipoverty policy instrument (World Bank, 1996, 2007, 2012, 2015, 2018b; World Bank, 2014). These groups included children, youth, women, older people, people with disabilities, the displaced, the unemployed, and the sick- people living with HIV (PLHIV) (Browne, 2015).

#### *2.1.2. Interventions*

We included the major types of social safety net interventions: Cash transfers (CTs); and public works (PWs). *Cash transfers* in this context are also referred to as "social cash transfers" or "social transfer programs," and they are noncontributory in the sense that targeted individuals or households do not pay to get cash grants (Garcia and Moore, 2007). We also included both *conditional cash transfers* (CCTs) and *unconditional cash transfers* (UCTs). The CCTs are cash grants provided to impoverished households upon fulfilling a set of conditions or co-responsibilities such as child school enrolment and minimum level of school attendance, visiting health facilities, participating in workshops, and participating in public works (Rawlings, 2006; World Bank, 2014). While UCTs are cash provided without particular conditions or co-responsibilities, targeting specific categories of people, such as the elderly, child support grants, orphans and vulnerable children (Baird et al., 2014; World Bank, 2015). The UCTs are also termed social pensions or orphan children; in this category, cash grants are provided to everyone in the eligible target groups without attaching any conditions (Baird et al., 2014; World Bank, 2015). It is to be

2 INPLASY is an international platform of registered systematic review and meta-analysis protocols officially launched in March 2020 (inplasy.com/), it follows PRISMA-P guideline. It is an international database created to help researchers around the world to register their systematic review protocols

noted that grant transfers can be made in-kind or cash-based; the in-kind transfers constrain the recipients' behavior, while cash-based transfers do not (Currie and Gahvari, 2008a).

*Public Works (PWs)*. The PWs scheme refers to activities which entail the payment of a wage either in cash or in kind by the state, or an agent acting on behalf of the state, in return for the provision of labor, in order to enhance employment, and produce an asset (either physical or social), with the overall objective of promoting social protection (McCord, 2008). The PWs scheme targets working-age households who are generally not eligible for cash transfers conditioned to other co-responsibilities (Subbarao, 2013). We included PWs scheme in all forms of payment modalities: those offering food which is also referred to as food-for-work (FFW); those offers cash which is referred to as cash-for-work (CFW); those offering inputs-for-work (IFW) where the wage is paid in the form of agricultural inputs such as fertilizers and seeds.

#### *2.1.3. Comparison*

Given the broad social safety net interventions, several comparisons were relevant. For each type of intervention, we described and compare the core design features (target groups; transfer value; frequency of the transfer; duration of exposure; and outcomes being addressed) and implementation features (conditionality; targeting; payment mechanisms; and implementation challenges).

#### *2.1.4. Outcomes*

We included all possible outcomes in social safety net interventions. Evidence suggests that when individuals or households receive social transfers, they will use in three different ways herein referred to as first-order outcomes: spending; saving; and investing (Banerjee and Duflo, 2011; Barrientos, 2012). Bastagli et al. (2019) provide a detailed discussion on three areas of spending: food, non-food, and access services (health, education etc.). If liquidity constraints are relaxed, the transfer received may increase participation in formal and informal savings groups, such as VICOBA[3]. Besides, with increased creditworthiness and reliable payments acting as collateral, recipients may also increase their access to credit or use the money to pay off existing debt (Barrientos, 2012; Bastagli et al., 2019). Alleviating credit and liquidity constraints and increasing certainty of income enables recipients' individuals or households to invest in assets or services.

When an individual or household uses SSNs in either of the three ways discussed above leads to behavioral changes herein referred to as second-order outcomes (SOOs). The SOOs, in turn, result in the third-order outcomes (TOOs), which are poverty reduction, reduced vulnerability to poverty and food insecurity. We included studies reporting on the broad groups of outcomes: savings, investment, and production; health and nutritional outcomes; employment and empowerment; education outcomes; consumption; and reduction in poverty, vulnerability to poverty and food insecurity.

3 Village Community Banking

#### *2.1.5. Geography, language and publication year*

We included only studies and literature reporting social safety net outcomes in Tanzania, and excluded studies reported outside Tanzania. We restricted ourselves to studies reported in English and Swahili, and there was a restriction on publication year. We included all studies published or reported from January 2000 onwards for two reasons. *First*, in Tanzania, SSNs interventions took their shape in 2000 after the country officially established the social action fund (TASAF) as the government strategy to reduce poverty and vulnerability to poverty. *Second*, social transfer interventions have made considerable advances during the 2000s, partly by incorporating learning from the experiences of the 1990s, so a focus on more recent programming experiences accurately captured the current state of design and implementation features.

#### *2.1.6. Publication status*

To avoid bias and ensure that the review is as thorough as possible, we included both published peer-reviewed studies and grey literature. Grey literature is the information produced on all levels of government, academics, business and industry in print and electronic formats and is not controlled by commercial publishers (Farace and Schöpfel, 2010; International Conference on Grey Literature, 1998; Yasin et al., 2020). Besides, publishing is not the primary activity of the producing body (International Conference on Grey Literature, 1998). Grey literature included were reports, policy briefs, working papers, newsletters, and government documents.

### 2.2. Information Sources and Search Strategy

The information sources were from biographic databases and grey literature. The biographic databases were: PubMed; IDEAS/RePEc; ScienceDirect; World Bank OKR; and Grey literature were searched using Google Scholar search engine. We organized search terms into two categories interventions, and setting and geography. The *interventions* consisted of all possible social safety nets: conditional cash transfer; unconditional cash transfer, public works programs, and their related nomenclatures that were likely to be found in the title; subject; or abstract of relevant literature. The *setting and geography* category were built up with one theme only, "Tanzania." Thus, "interventions," and "setting and geography" search terms were used in combination and separated by using Boolean operators "OR", "AND", (Kwakye and Haw, 2020) or combined as indicated in Table 1. We conducted a pilot test to ensure that the search terms capture relevant articles, and some search terms were reduced or added after the pilot test to fine-tune the search strategy proposed earlier.

The search term in Table 1 was run for each database individually to obtain a final number of records or articles for each database. The total number of records from each database and other sources were entered in the PRISMA flow chart following the prescribed ten steps established in PRISMA guideline (Moher et al., 2015; Page et al., 2021; Shamseer et al., 2015).

### 2.3. Study Records

#### *2.3.1. Data management and selection process*

We imported the citations identified from the search strategy into Rayyan (https://rayyan.ai/) as described in section 2.2 above. In practice, we started by identifying many studies from the electronic

database searches. Then we used pre-defined eligibility criteria to determine which study is relevant for inclusion in the review, taking into account that all relevant literature is included in the review. Input and results of each stage of the selection process was demonstrated using flowchart as recommended in the PRISMA guidelines (Page et al., 2021).

### *2.3.2. Records, data extraction and risk of bias assessment*

A total of 687 individual records were identified from databases (PubMed, IDEAS/RePEc, ScienceDirect, and World Bank OKR) whereas 1 180 records were identified from other sources using Google Scholar. After removing duplicates, 356 records from databases and 53 record from other sources were screened by title and abstract and later on they were screened in full text. Finally, a total of 17 articles were included for the systematic review (Table 1). Prior developed and pretested data extraction tool in excel format (Supplementary material 2.1) was used for data extraction.

Data from included studies were extracted by one reviewer (BM) but with the verification by two reviewers (LDK and AK) to reduce bias and reduce errors in the data extraction process (Shamseer et al., 2015). The summary of the process indicating selection of studies from databases and other sources is presented using the flowchart diagram (Figure 1) as recommended in PRISMA guideline (Moher et al., 2015; Page et al., 2021; Shamseer et al., 2015).

To establish transparency of the systematic review results and findings, a risk of bias assessment for each of the included study with exception of grey literature was performed (Supplementary materials 2.2) using mixed methods appraisal tool (MMAT) literature (Hong et al., 2018). The MMAT was considered to be relevant because the review falls in a discipline outside of human medicine (Cornell University, 2022).

### *2.3.3. Data presentation and synthesis*

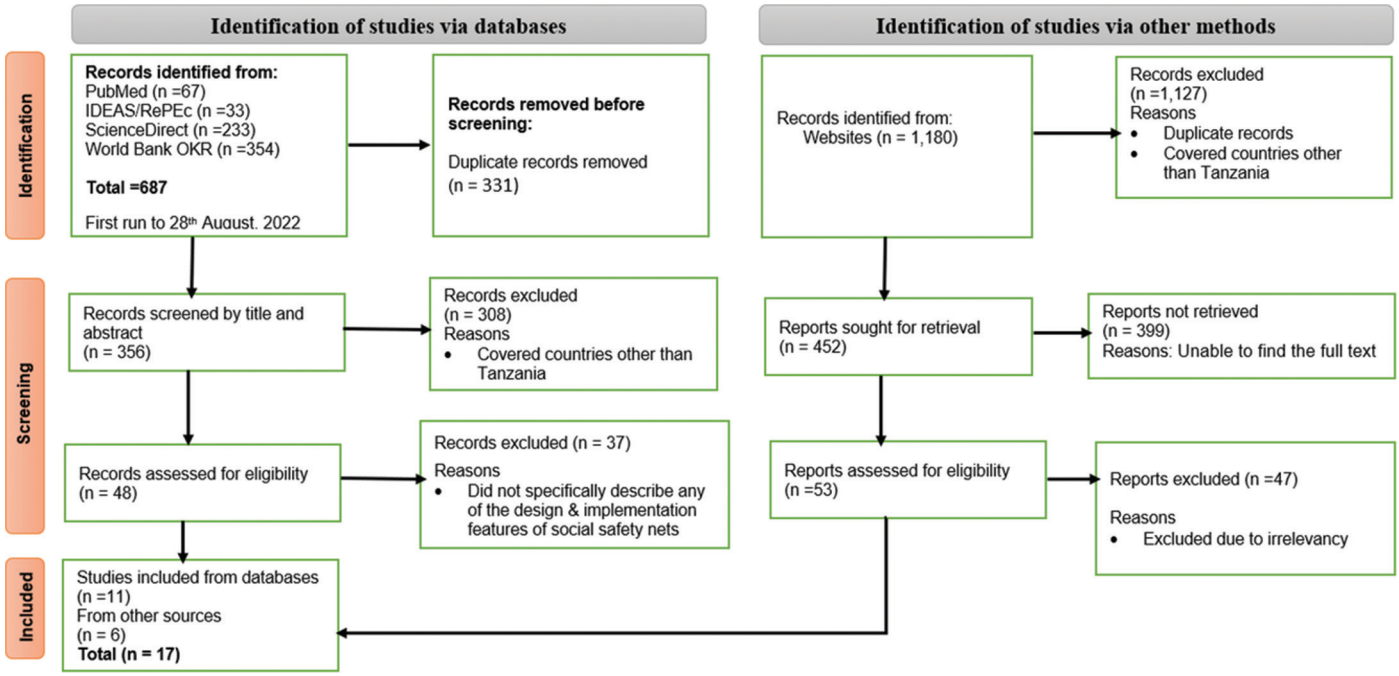
Based on the context of the study and the variation of the study outcomes across the included studies, we conducted a narrative synthesis and did not attempt to quantitatively pool the findings.

The data synthesis focuses on core design features and implementation features of SSNs. Within the core design features, we examine to

**Table 1: Search strategy**

| Database | Date first search | Search terms |
|---|---|---|
| PubMed | 28-08-2022 | ((conditional [All Fields] AND cash[All Fields] AND transfer*[All Fields] OR cash[All Fields] AND transfer*[All Fields]) OR (cash incentive*[All Fields] OR (cash plus[All Fields] OR (public works*[All Fields] OR (cash assistance*[All Fields] OR (food for work*[All Fields] OR (employment guarantee*[All Fields] OR (workfare program*[All Fields] OR (food Aid*[All Fields] OR (school feeding program*[All Fields])) AND ("Tanzania"[All Fields] OR "Tanzania*"[All Fields]) |
| IDEAS/RePEc | 28-08-2022 | (cash transfer) AND Tanzania |
| ScienceDirect | 24-10-2022 | "social safety nets") OR ("cash transfers") OR ({cash plus}) OR ({public works}) AND ({Tanzania}) |
| World Bank OKR | 28-08-2022 | "social safety nets" OR "cash transfers" OR "public works" AND "=Tanzania" |
| Google Scholar | 28-08-2022 | ("social safety nets") OR ("cash transfers") OR ({cash plus}) OR ({public works}) OR ("cash assistance") OR ("food for work") AND ("Tanzania") |

**Figure 1:** Flowchart diagram of selected studies from databases and other sources



identify: the type of SSNs implemented in Tanzania; target groups; transfer value and frequency; coverage; years of operation/duration of exposure; and outcomes. For implementation features, a narrative synthesis focuses on: implementing organization; conditionality; targeting mechanisms; payment mechanisms; and implementation challenges. We grouped the included studies by core design and implementation features, the review and discussion has been framed in the context of these criteria. Our interest is to reveal how SSNs are being designed and implemented in Tanzania since the design and implementation features influence their effects on outcome indicators (Bastagli et al., 2019).

## 3. RESULTS

### 3.1. Existing Social Safety Nets in Tanzania

This section shed light on various social safety nets which are implemented in Tanzania. The included studies report more than 20 programs implementing various social safety nets in Tanzania (Table 2). The social safety nets reported are mainly categorized into two: *cash transfers* (CTs) and *public works* (PWs). Cash transfers reported are categorized into: conditional cash transfers (CCTs) and unconditional cash transfers (UCTs). Six studies (n = 6) reports conditional cash transfers (CCTs) (Chzhen et al., 2021; de Walque et al., 2014; Evans et al., 2014; Fahey et al., 2020; McCoy et al., 2015; World Bank, 2016). Whereas five studies (n=5) reports unconditional cash transfers (Gichane et al., 2022; Heslop and Hofmann, 2014; Smith, 2011; WFP, 2017; World Bank, 2016).

The conditional cash transfers (CCTs) reported are categorized into *cash based* and *in-kind based* CCTs. Six studies (n=6) reports in-kind based CCTs namely school feeding (PCI, 2021, 2022; Smith, 2011; USDA, 2020; Wang et al., 2022), agricultural input subsidy (African Development Bank, 2022; Xavier et al., 2012), food assistance (McCoy et al., 2015; WFP, 2017), education subsidy, health subsidy, and food subsidy (Smith, 2011). Whereas six studies (n = 6) reports cash based CCTs. Similarly, the systematic review reports both *cash* and *in-kind based* public works (PWs) schemes. The only cash based PWs reported is *cash for works* (CFW) whereas the in-kind based PWs reported are *food-for-work* (FFW) and *food for asset* (FFA) (de Hoop et al., 2020; Evans et al., 2014, 2016, 2018; Smith, 2011; World Bank, 2016, 2019a). The distribution of included studies by programs and type of social safety nets reported are presented in Table 2.

### 3.2. Design and Implementation Feature of the Social Safety Nets in Tanzania

This section explores the results of the seventeen studies included in the review. The review examines the core design and

**Table 2: Distribution of included studies by SSN program, SSN type, and database/sources (n=17)**

| Included studies | SSN program | SSN type | Database/Sources |
|---|---|---|---|
| **Panel A: Cash based transfers (CBTs)** | | | |
| **Panel A1: Conditional cash transfers (CCTs)** | | | |
| Chzhen et al. (2021) | Cash Plus Program | Conditional Cash Transfer | PubMed |
| de Walque et al (2014) | RESPECT Program | Conditional Cash Transfer | World Bank OKR |
| Evans et al. (2014) | Community-Based Conditional Cash Transfers | Conditional Cash Transfer | World Bank OKR |
| Fahey et al.(2020) | Financial incentive program for improving retention in HIV Care and Viral Suppression | Conditional Cash Transfer | ScienceDirect |
| McCoy et al.(2015) | Nutrition Assessment, Counseling, and Support | Conditional Cash Transfer | PubMed |
| World Bank (2016) | Productive Social Safety Net (PSSN) | Conditional Cash Transfer | World Bank OKR |
| **Panel A2: Unconditional cash transfers (UCTs)** | | | |
| Gichane et al.(2022) | Sauti/WORTH+cash transfer program | Unconditional Cash Transfer | PubMed |
| Heslop and Hofmann (2014) | Kwa Wazee Program | Elderly & Orphans allowance | Google Scholar |
| World Bank (2016) | Productive Social Safety Net (PSSN) | Basic transfer | World Bank OKR |
| Smith (2011) | Save the Children Cash Transfer Program | Unconditional Cash Transfer | World Bank OKR |
| WFP (2017) | Protracted relief and recovery operations (PRRO) | Unconditional Cash Transfer | Google Scholar |
| **Panel B: In-kind based transfers (IKTs)** | | | |
| ADB (2022) | Agriculture input voucher scheme (NAIVS) | Agricultural Input Subsidy | Google Scholar |
| Xavier et al.(2012) | Agriculture input voucher scheme (NAIVS) | Agricultural Input Subsidy | World Bank OKR |
| PCI (2021) | McGovern-Dole Food for Education (FFE) | School feeding | Google Scholar |
| PCI (2022) | Pamoja Tuwalishe | School feeding | Google Scholar |
| Smith (2011) | MVC program | Education and health subsidies | World Bank OKR |
| | NFRA | Food subsidies | World Bank OKR |
| | School Feeding Program (SFP) | School feeding | World Bank OKR |
| USDA (2020) | Chakula Chetu | School feeding | Google Scholar |
| Wang et al.(2022) | MEGA Program | School feeding | PubMed |
| WFP (2017) | Protracted relief and recovery operations (PRRO) | Food assistance | Google Scholar |
| McCoy et al.(2015) | Nutrition Assessment, Counseling and Support | Food assistance | PubMed |
| **Panel C: Public Works (PWs)** | | | |
| **Panel C1: Cash based public works** | | | |
| World Bank (2016) | Productive Social Safety Net (PSSN) | Cash for Work (CFW) | World Bank OKR |
| de Hoop et al. (2020) | Public Works Program | Cash for Work (CFW) | IDEAS/RePEc |
| **Panel C1: In-kind based public works** | | | |
| Smith (2011) | Public Works Program | Food for Work (FFW) | World Bank OKR |
| | | Food for Asset (FFA) | World Bank OKR |

implementation features of social safety nets. Within the core design features, we examine the type of SSN; target groups; transfer value and frequency; coverage; duration of exposure; and outcomes. Within the implementation features, a narrative synthesis focuses on: conditionality; targeting mechanisms; payment mechanisms and implementation challenges. The social safety nets types are grouped into cash-based transfers (CBTs), in-kind based transfers (IKTs), and public works (PWs).

### *3.2.1. Cash-based transfers (CBTs)*

The mainly reported cash-based transfers (CBTs) is the conditional cash transfers (CCTs). This is the largest type of SSNs implemented in Tanzania. They are defined as cash grants provided to recipients upon fulfilling a set of conditions or co-responsibilities (Rawlings, 2006; World Bank, 2014). The design and implementation feature of CCTs are summarized in Table 3a and b.

We find that SSNs recipients are no longer confined to poverty and vulnerability indicators, rather some are used as financial incentives to reduce HIV incidence, increase HIV testing and linking to care after diagnosis and increase antiretroviral therapy (ART) adherence (Fahey et al., 2020; McCoy et al., 2015). We find the transfer value of CCTs is between USD 4.5-80 with varying frequency of transfers from monthly, bimonthly up to every 4 months.

The CCTs under the PSSN program covers all regions in

**Table 3a: Summary of design and implementation features of SSNs**

| S/No. | Program | SSN | Implementing Organization | Target groups | Targeting Mechanism | Transfer value (USD) | Frequency |
|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| **Panel A: Conditional cash transfers (CCTs)** | | | | | | | |
| A.1 | Cash Plus Program (Ujana Salama) | Conditional cash transfers (CCT) | TASAF with technical support from UNICEF Tanzania and TACAIDS | Adolescents youth aged 14-19 years | GT; AT | 80 | Bimonthly |
| A.2 | Community-Based Conditional transfer | Conditional cash transfers (CCT) | Tanzania Social Action Fund (TASAF) | Poor and vulnerable households | CBT | 12-36 | Bimonthly |
| A.3 | Financial incentive program for improving retention in HIV Care and Viral Suppression | Conditional cash transfers (CCT) | Jointly: University of California, Berkeley (USA), Ministry of Health (URT), and School of Hygiene and Tropical Medicine (UK) | People living with HIV/AIDS (PLHIV), initiated ART ≤30 days before | AT | 4.5-10 | Monthly |
| A.4 | Nutrition Assessment, Counseling, and Support | Conditional cash transfers (CCT) | Jointly: University of California, Berkeley (USA), Ministry of Health (URT), and School of Hygiene and Tropical Medicine (UK) | People living with HIV/AIDS (PLHIV) | AT | 11 | Monthly |
| A.5 | Productive Social Safety Net (PSSN) | Conditional cash transfers (CCT) | Tanzania Social Action Fund (TASAF) | Poor and vulnerable households | GT; CBT; PMT | 6 – 16.3 | Monthly |
| A.6 | RESPECT | Conditional cash transfers (CCT) | The World Bank, University of California – Berkeley and Ifakara Health Institute | Young aged 18-30 years at high risk of HIV infection | AT | 10-20 | Every four months |
| **Panel B: Unconditional Cash Transfers (UCTs)** | | | | | | | |
| B.1 | Kwa Wazee Program | Elderly and Orphans' allowance | Kwa Wazee | Vulnerable elderly who are 60 years and supporting orphans | CBT | USD 7.50+USD 4.40 for each grand-child | Monthly |
| B.2 | Productive Social Safety Net (PSSN) | Basic transfer (fixed) | Tanzania Social Action Fund (TASAF) | Poor and vulnerable households | PMT | USD 2.5 | Monthly |
| B.3 | Protracted Relief and Recovery Operations (PRRO) Program | Unconditional Cash Transfer (UCTs) | World Food Program (WFP) | People with Special Needs (PSNs) among Refugees | AT | USD 10 | Monthly |

*(Contd...)*

**Table 3a:** ***(Continued)***

| S/No. | Program | SSN | Implementing Organization | Target groups | Targeting Mechanism | Transfer value (USD) | Frequency |
|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| B.4 | Sauti/ WORTH+cash transfer program | Unconditional Cash Transfer (UCTs) | Jhpiego in partnership with Engender Health, Pact and NIMR | Adolescent Girls and Young Women (AGYW) | AT | USD 33 | Trimonthly |
| B.5 | Save the Children Cash Transfer Program | Unconditional Cash Transfer (UCTs) | Save the Children | Poor households headed by a single mother or grandmother supporting vulnerable children | CBT | TZS 6,000+TZS 3,000 for each grand-child | Monthly |
| **Panel C: In-kind Based Transfers (IKTs)** | | | | | | | |
| C.1 | NAIVS Program | Agricultural Input Subsidy | Ministry of Agriculture (MoA) | Smallholders with <1ha maize or rice | GT; CBT | 3 Vouchers[4] | Annually |
| C.2 | TAISP | Agricultural Input Subsidy | Ministry of Agriculture (MoA) | Smallholders with 2ha | CBT | Yet unknown[5] | Annually |
| C.3 | Chakula Chetu (CC) Program | School feeding | Project Concern International (PCI) | Pupils in Pre and Primary Schools | GT; AT | Ugali and beans | School days |
| C.4 | McGovern-Dole Food for Education program | School feeding | Project Concern International (PCI) | Pupils in Pre and Primary Schools | GT; AT | Ugali and beans | 4/5-School days |
| C.5 | Pamoja Tuwalishe | School feeding | PCI | Pupils in Pre and Primary Schools | GT; AT | Ugali and beans | School days |
| C.6 | MEGA program | School feeding | Harvard University; UDOM; and Africa Academy for Public Health | Students in Secondary Schools | GT; AT | Ugali, beans and green leafy vegetables | School days |
| C.7 | School Feeding Program | School feeding | WFP, MoEST and LGAs | Pupils in Primary Schools | GT; AT | Breakfast and lunch (718 Kcal) | 194 School days a year |
| C.8 | NFRA | Food subsidies | MoA and Prime Minister's Office (PMO) | Poor and vulnerable to households | GT; CBT | 12 kg of maize | 2 releases per year |
| C.9 | Protracted relief and recovery operations | Food assistance | World Food Program (WFP) | Refugees | GT; AT | 575g (cerials, beans, oil & salt)[6] | Daily ration |
| C.10 | Nutrition Assessment, Counseling and Support | Food assistance | University of California, Berkeley, URT, and School of Hygiene and Tropical Medicine (UK) | People living with HIV/ AIDS (PLHIV) | GT; AT | 12 kg of maize meal, 3 kg of groundnuts, and 3 kg of beans | Monthly |
| C.11 | MVC program | Education and health subsidies | PACT and Family Health International | Orphans and vulnerable children | CBT | Uniforms; bedding, mattresses, and health cards | Once-off |
| **Panel D: Public Works (PWs)** | | | | | | | |
| D.1 | Productive Social Safety Net (PSSN) | Cash for work (CFW) | Tanzania Social Action Fund (TASAF) | Poor and vulnerable households with at least one adult able to work | GT and CBT | USD 1.35 | 15 days per month for up to four months per year |
| D.2 | Public Works Program | Food for work (FFW) | World Food Program (WFP) | Vulnerable and food insecure households | GT and CBT | 3 kg of maize; 450g of pulses, and 225g vegetable oil | Per day worked for up to 30 days |
| | | Food for asset (FFA) | World Food Program (WFP) | Vulnerable and food insecure households | GT and CBT | 3 kg of maize; 450g of pulses, and 225g vegetable oil | Per day worked for up to 30 days |

4 First voucher contained 10 kg of improved maize variety/15 kg of paddy seed for planning 1 acre; Second voucher contain 50 kg bag of diammonium phosphate basal fertiliser, or 50 kg bags of Minjingu Rock Phosphate (MRP). Whereas the third voucher contain 50 kg of top dress fertiliser (universally designated as urea)

5 TAISP offers subsidized certified seeds, fertilizers and pesticides. We do not know yet precisely the actual value of transfer per recipient under the TAISP

6 The food basket comprises of a daily ration of 380g of maize meal, 120g of beans or split peas, 50g of super cereal with sugar, 20g of fortified vegetable oil and 5g of iodized salt per person

**Table 3b: Summary of design and implementation features of SSNs**

| S. No. | Coverage | Years of operation | Outcome being addressed | Conditions/ Co-responsibilities | Payment mechanisms |
|---|---|---|---|---|---|
| (1) | (9) | (10) | (11) | (12) | (13) |
| **Panel A: Conditional cash transfers (CCTs)** | | | | | |
| A.1 | Rungwe, Busokelo, Mufindi, and Mafinga (2,458 participants) | 2018-2019 | Experiences of violence; help-seeking related to violence | Attending trainings and developing an approved educational or business plan | Mobile money service |
| A.2 | Bagamoyo, Chamwino, and Kibaha (2,500 households) | 2010-2012 | Health, education, and consumption gains | Child school enrolment and 80% minimum level of school attendance; visit to health facility 6 times per year | Cash payment |
| A.3 | Shinyanga Region (530 patients) | 2010-2012 | Viral suppression and Retention on ART Health care retention | Monthly clinic attendance | Mobile health technology (mHealth) |
| A.4 | Shinyanga (788 participants) | April, 2018-Dec, 2018 | Health care retention; food security; weight gain; viral suppression | Monthly visit to health facility with their HIV care provider | Mobile money service (M-Pesa)[7] |
| A.5 | National (1.1 Million households) | 2014-2015 | Consumption and food security, education, health, coping strategies, assets and intra-household dynamics | Child school enrolment and 80% minimum level of school attendance; Pregnant women attending at least 4 prenatal medical examinations+deliver at a health facility; children <2 years; children aged 24-60 months attend at least once per 6 months | Mobile money service |
| A.6 | Dar es Salaam, Kilombero/ Ulanga (2,399 participants) | 2015 to present | Reduction in sexually transmitted infections | Negative sexually transmitted infection test results | Cash payments (given in an envelope) |
| **Panel B: Unconditional Cash Transfers (UCTs)** | | | | | |
| B.1 | Muleba DC: 1,031 older people+327 grandchildren reached (2019) | 2003 to present | Reduction in begging; increased school attendance; and food consumption | Unconditional | Cash-based payment |
| B.2 | National (1.1 Million households) | 2015 to present | Basic consumption | Unconditional | Electronic payment |
| B.3 | Kigoma (Nyarugusu camp) 10,000 beneficiaries (2,500 households) | 2014-2017 | Food security | Unconditional | Cash-based payment |
| B.4 | 14 Regions including Iringa, Njombe, Mbeya, Shinyanga, Dar es Salaam, Mtwara, Tabora, Singida, Dodoma, Lindi and Arusha | 2015-2020 | Risky sexual behavior among AGYW; and Economic vulnerabilities | Unconditional | Cash-based payment |
| B.5 | Lindi | 2007-2009 | Vulnerability to poverty and food insecurity | Unconditional | Cash-based payment |
| **Panel C: In-kind Based Transfers (IKTs)** | | | | | |
| C.1 | Nationwide program[8] | 2009-2014 | Crop productivity and food security | Unconditional IKT | Paper-based vouchers collected in person at private agro-dealers' shops |
| C.2 | Wheat; sunflower; and rice production areas[9] | 2022-2025 | Crop productivity and food security | Unconditional IKT | Electronic vouchers using mobile phones |
| C.3 | 16 Schools in Mara (18,291 Pupils) | 2017-2021 | Increased enrollment; attendance; and retention | Unconditional IKT | On-site meals (as opposed to take-home rations) |
| C.4 | 3 LGAs of Mara (400,000 pupils) | 2010-2021 | Increased enrollment; attendance; and retention | Unconditional IKT | On-site meals (as opposed to take-home rations) |
| C.5 | 9 LGAs Mara and Dodoma (300,000 pupils) | 2022-2027 | Increased enrollment; attendance; and retention | Unconditional IKT | On-site meals (as opposed to take-home rations) |
| C.6 | Chamwino DC, Dodoma (6 Schools & 750 students) | 24/01/2022-31/12/2022 | Nutrition and health for adolescents | Unconditional IKT | On-site meals (as opposed to take-home rations) |

*(Contd...)*

**Table 3b:** ***(Continued)***

| S. No. | Coverage | Years of operation | Outcome being addressed | Conditions/ Co-responsibilities | Payment mechanisms |
|---|---|---|---|---|---|
| (1) | (9) | (10) | (11) | (12) | (13) |
| | | | **Panel C: In-kind Based Transfers (IKTs)** | | |
| C.7 | 1,200 public schools (700,000 pupils) c | 2007 to present | Increased enrollment; attendance; and retention | Unconditional IKT | On-site meals (as opposed to take-home rations) |
| C.8 | Food insecure Districts, regardless of where they are | 2008 to date[10] | Vulnerability to food insecurity | Unconditional IKT | Individuals visit food distribution centers to receive food |
| C.9 | Kigoma (Nyarugusu camp) covering 264,230 refugees | 2014-2017 | Food and nutrition insecurity | Unconditional IKT | Individual scooping through group distributions |
| C.10 | Shinyanga enrolling 788 participants | 2014-2015 | health care retention, food insecurity, weight gain & viral suppression | Attending scheduled visits to health facility | Recipients collected food basket through health facilities during the visit |
| C.11 | 600,000 children annually in 85 Districts | Annually | Increase school attendance and the retention rate | Unconditional IKT | Channeled to recipients through village groups |
| | | | **Panel D: Public Works (PWs)** | | |
| D.1 | National, reaching 255,756 households | 2015-todate | Food insecurity and vulnerability | Conditioned to participating in public works | Electronic payment |
| D.2 | Dodoma, Tabora and Mwanza regions[11] | 2009-todate | Food insecurity and vulnerability | Conditioned to participating in public works | Food ration is collected at the dedicated centers |
| | Dodoma, Tabora and Mwanza regions | 2009-to date | Food insecurity and vulnerability | Conditioned to participating in public works | Food ration is collected at the dedicated centers |

Tanzania Mainland and Zanzibar and focuses on outcomes related to consumption and food security, education, health-seeking behaviors, coping strategies, household investments in living conditions, assets and intra-household dynamics. The rest are limited to specific areas of the country and focuses on outcomes related to experiences of violence and help-seeking related to violence; health care retention, viral suppression, food security, weight gain, viral suppression, and reduction in sexually transmitted infections. The CCTs payment mechanisms falls into two**:** *first*, is the electronic payment mechanisms which is paid through mobile money transfer and payment via mobile health technology (mHealth) - linked biometric attendance monitoring to automated mobile payments. *Second*, are the cash-based payment mechanisms collected at dedicated cash posts and health facility centers.

### *3.2.2. Unconditional cash transfers (UCTs)*

In this review, we have found evidence consistent with existence of five programs implementing unconditional cash transfers (Gichane et al., 2022; Heslop and Hofmann, 2014; Smith, 2011; WFP, 2017; World Bank, 2016). This evidence is in line with Banerji and Gentilini (2013) who content that unconditional cash transfers (UCTs) are increasingly popular in Sub-Saharan Africa. These are cash transfers made without any conditions required for the recipient. The design and implementation feature of IKTs are summarized in Table 3a and b.

The review has found variations on the recipients of unconditional cash transfers namely: Elderly people who are supporting orphans; poor and vulnerable households; people with special seeds in refugees' camps; adolescent girls and young women; and extreme poor households headed by a single mother or grandmother supporting vulnerable children. With the exception of UCT under the PSSN program with a national coverage, others cover limited areas of the country. The two UCTs are still in operation until now (2022)-the UCT under "Kwa Wazee" program started and UCTs implemented under the PSSN program. It is to be noted that there is no explicit stated recertification and exit strategy for all of the UCTs.

Two studies have reported UCT implementation challenges**.** One study by Heslop and Hofmann (2014) have reported the implementation challenges related to targeting of beneficiaries and payment challenges due to remoteness. The CBT has resulted into weak performance and the perception that targeting is unfair seemed to create obvious unease among recipients and non-recipients. The use of appropriate targeting mechanism and electronic payments is therefore recommended. The challenge on the sustainability of UCTs is revealed as more recipients reported that they fell back into extreme poverty after the program ended (Smith, 2011). Recommending a need to include training on income generation and nutrition and the advisability of adding conditions to the transfers.

7 In the rare case that a participant did not possess a cell phone, the transfer was provided in cash directly

8 NAIVS program planned to provide 2.5 million farm households each with three years of assistance on a rotational basis

9 (1) Wheat production covers: Arusha, Mbeya, Kilimanjaro, Manyara, Njombe and Rukwa; (2) Sunflower production covers: Manyara, Rukwa, Singida Arusha, Morogoro, Dodoma and Songwe; and (3) Rice production covers: Mwanza, Shinyanga, Simiyu and Geita. The total number of the direct beneficiary is 1.2 million smallholder farming households (average 2ha) equivalent to 4,800,000 persons, of which 40 per cent are women and youth. c School Feeding Program (SFP) covers 16 drought-prone, food-insecure districts of central and northern Tanzania in Dodoma, Singida, Shinyanga, Manyara, and Arusha based on vulnerability assessment. It is estimated to cover 1,200 public schools enrolling more than 700,000 pupils

10 True number of beneficiaries reached to date are not known

#### *3.2.3. In-kind based conditional transfers*

The in-kind based conditional transfers (IKTs) mainly reported are: agricultural input subsidies (African Development Bank, 2022), school feeding (PCI, 2021, 2022; Wang et al., 2022), food assistance (WFP, 2017) education and health subsidies, and food subsidies (Smith, 2011). A summary is provided in Tables 2.3(a) and 2.3(b).

The agricultural input subsidies (AISs) are also known as agricultural subsidy programs (ASP), agricultural inputs support programs (AISP), input subsidy programs (ISP), farm input subsidy programs (FISP), affordable inputs programs (AIP), national agriculture input voucher scheme (NAIVS), or voucher scheme (VS). The AISs are form of SSN often considered as essential means of increasing crop productivity in order to reduce food insecurity and produce a marketable surplus which contributes to household income. While the previous AIS under the NAIVS program targeted smallholder households cultivating <1 ha and having limited experience in using improved seed and fertilizer, but with the farming resources needed to apply these inputs. The recent AIS under the TAISP targets smallholders including 40% of women and youth, cultivating on average 2 ha of wheat, sunflower, or rice.

Other IKTs are targeting pupils in pre and primary schools, students in secondary schools, refugees, people living with HIV/AIDS (PLHIV), orphans and vulnerable children, and poor and vulnerable to households. The targeting mechanisms in use are mainly geographical targeting, community-based targeting, and administrative targeting. The outcomes addressed by IKTs are mainly crop productivity and food security; vulnerability to food insecurity; increased enrollment; attendance, and retention; nutrition and health for adolescents, and health care retention, food insecurity, weight gain and viral suppression. With exception to food assistance provided under the Nutrition Assessment, Counseling and Support program which is conditioned to attending scheduled visits to health facility, other IKTs are provided without conditions.

The payment mechanisms in use for agricultural input subsidy IKTs are paper-based vouchers collected in person at private agro-dealers' shop, and electronic vouchers using mobile phones. The payment mechanisms in use for food based IKTs are mainly on-site meals as opposed to take-home rations whereas others collect food basket through health facilities during the visit.

#### *3.2.4. Public works (PWs)*

Public works (PWs) schemes refers to activities which entail payment of a wage either in cash or in kind by the state, or an agent acting on behalf of the state, in return for the provision of labor, in order to enhance employment, and produce an asset (either physical or social), with the overall objective of promoting social protection[12] (McCord, 2008). The systematic review reveals two categories of public works (PWs) schemes implemented in Tanzania: *first,* is the cash-based PWs which is popularly known as cash for works (CFW). This is implemented under PSSN program. *Second*, is the in-kind based PWs cash for works (CFW) namely food-for-work (FFW) and food for asset (FFA). These are implemented by the World Food Program (WFP). The design and implementation feature of IKTs are summarized in Table 3a and b.

The Public works (PWs) schemes is targeting poor and vulnerable households with at least one adult able to work. The targeting approach combine two mechanisms aimed at reaching the targeted population - geographical targeting and community-based targeting. The outcomes addressed are mainly food insecurity and vulnerability.

While CFW arrangement under the PSSN covers all regions in Tanzania Mainland and Zanzibar, FFW and FFA arrangements are currently implemented in food insecure prone areas of Dodoma, Tabora and Mwanza regions. We do not know the true number of beneficiaries reached to date. The CFW arrangement employs electronic payments mechanism**.** Whereas FFW and FFA arrangement are in-kind based PWs, thus food ration is collected at the dedicated centers.

## 4. DISCUSSION

### 4.1. Types of SSNs and implementing organizations

In this review, we have found evidence consistent with existence of various types of social safety net in Tanzania, specifically grouped into cash-based transfers (CBTs), in-kind based transfers (IKTs), and public works (PWs). These results are consistent with the notion that every country in Sub-Saharan Africa (SSA) is implementing at least one type of social safety nets (Beegle et al., 2018b). We also found evidence that apart from the largest Government productive social safety net (PSSN) program which implements CCTs, UCTs and PWs in the country, there are also five other programs implementing CCTs, another five programs implementing UCTs, and one program implementing PWs. They are hosted by various institutions.

While Government PSSN program focuses on cash-based transfers (CBTs), there are more than eleven programs implementing IKTs in the country**.** Specifically, the review reveals five IKTs namely: (i) Agricultural input subsidies, (ii) Education and health subsidies, (iii) School feeding, (iv) Food subsidy, and (v) Food assistance. The systematic review reveals two categories of PWs implemented in Tanzania: *first,* is the cash-based PWs which is popularly known as cash for works (CFW) implemented under PSSN program. *Second*, is the in-kind based PWs cash for works (CFW) namely food-for-work (FFW) and food for asset (FFA). These are implemented by the World Food Program (WFP).

### 4.2. Coverage

The review shows that, with exception to CCTs under the PSSN program which covers all regions, the rest of the SSN types in Tanzania have low coverage which is exacerbated by the fact that many of them are minor or temporary interventions implemented in isolation, in narrow geographical areas, or among discrete population groups. This finding is in line with Beegle et al. (2018a) in their report on realising the full potential of SSNs in Africa which highlights the low coverage rates of SSNs in Sub-Saharan Africa (SSA). The results suggest that large sections of the country's poor and vulnerable population remain uncovered by

social safety nets. While, there is a move under the PSSN program to develop and expand social safety net across the country, only about 1.1 million people has access to SSNs while over 4 million people continue to live in extreme poverty across the United Republic of Tanzania (World Bank, 2019b).

### 4.3. Targeting

The systematic review has indicated that most of the SSNs implemented in Tanzania targets poor and vulnerable households. This is in line with the theory underlying the implementation of SSNs across the globe (Ahmed et al., 2014; Baird et al., 2014; Currie and Gahvari, 2008b; Dabour, 1999; Fiszbein and Schady, 2009; Gill et al., 2016; Hall and Woolard, 2015; Handa and Davis, 2006; Margaret et al, 2008; Ralston et al., 2017; World Bank, 1996, 2014b, 2017).

We also found evidence consistent with the notion that the recipients of CCTs are no longer only confined to chronic poor, the transient poor, and the vulnerable groups as it used to be. Instead, to date CCTs have shown great promise on the public health intervention as financial incentives to reduce HIV incidence, increase HIV testing and linking to care after diagnosis, and increase antiretroviral therapy (ART) adherence (Fahey et al., 2020; McCoy et al., 2015).

The systematic review further reveals that, some programs do not exclusively target poor people but have broader objectives such as school feeding programs for primary-school pupils or targeting specific categories in the population deemed to be vulnerable (such as children, elderly, and youth) without necessarily taking population welfare characteristics into account.

### 4.4. Targeting Mechanisms

In this review, we have found evidence consistent with what is observed by Garcia and Moore (2007) with respect to commonly used SSN targeting mechanisms in Sub-Saharan Africa (Box 1). In Tanzanian context review show that the mostly used targeting mechanisms to reach out the SSNs target groups are geographical targeting, administrative targeting, and community-based targeting. Geographical targeting involves operating SSNs programs only in districts, villages or regions known to be poor. Often areas selected are known to be chronically poor, or on the basis of other criteria such as proneness to drought, flooding etc. where natural disasters are common and poverty may be more transitory. The administrative targeting involves using data on clients' health status (in the case of SSNs in public health interventions) to confirm eligibility. In the case of poverty and vulnerability would involve using data on clients' income or wealth (means testing), or age (in the case of pensions) to confirm eligibility. Community-based targeting involves using community members to identify who are eligible for the SSN program. The members of community identify SSN beneficiaries, in accordance with set criteria, with transparent public debate about who should be included. This is based on the reality that people in a village know who are the poorest, and which orphans or elderly are vulnerable. This is followed by verification survey to ensure the systems are in fact targeting the right beneficiaries.

### 4.5. Transfer value

Our review has found that different programs and projects have different objectives and project designs hence a bearing on the amount of cash disbursed to the project recipients. In total, the cash-based transfer value under the PSSN is 30% of the average per capita consumption of the food-poor population (World Bank, 2012b). This is in line with the international rule of thumb which recommend a transfer of between 20 and 40% of per capita total poverty line for a social safety net to be meaningful to households (Berg and Cuong, 2011; Handa and Davis, 2006).

We need to exercise caution in interpreting the transfer value of SSNs other than those implemented under the PSSN because their computation is not based on per capita total poverty line to enable us

**Box 1:** Commonly used targeting mechanisms in SSA

Administrative Targeting: Involves using data on clients' health status (in the case of SSNs in public health interventions) to confirm eligibility. In the case of poverty and vulnerability would involve using data on clients' income or wealth (means testing), or age (in the case of pensions) to confirm eligibility.

Proxy Means Testing: Uses other attributes (indicators) to identify the poor. Such attributes may include conditions of household dwelling and asset ownership as well as socio-economic, demographic, geographic and labour market indicator.

Self-Targeting: The SSN is designed such a way that only those who truly need assistance chooses to participate. For stance: providing low wage rate for PWs such that only those who are poor will apply; (ii) a food security program offering in-kind benefit of low-quality food such that households will only take if they are extremely in need

Geographical Targeting: Involves operating SSNs programs only in districts, villages or regions known to be poor. Often areas selected are known to be chronically poor, or on the basis of other criteria such as proneness to drought, flooding etc. where natural disasters are common and poverty may be more transitory.

Community-Based Targeting: Involves using community members to identify who are eligible for the SSN program. The members of community identify SSN beneficiaries, in accordance with set criteria, with transparent public debate about who should be included. This is based on the reality that people in a village know who are the poorest, and which orphans or elderly are vulnerable. This is followed by verification survey to ensure the systems are in fact targeting the right beneficiaries.

compare with the international rule of thumb. However, concerning Public Works (PWs) the calculation of transfer value is in such a way that the daily wage rate has been set below the prevailing market rates (daily market wage) so that only those who genuinely need assistance choose to participate. In other words, not to distort the local labor market but still provide a meaningful income to program beneficiaries (World Bank, 2019b). The calibrated amount is also in line with the daily rate paid by other large public works programs financed by the World Food Program (de Hoop et al., 2020).

Our review has found that other cash-based transfers value are determined based on (i) The focus-group discussions with neighboring villages while balancing sufficient incentive levels against concerns about scalability (De Walque et al., 2012); (ii) Equivalent value to the food basket (McCoy et al., 2015), (iv) preventing undue coercion to participants (De Walque et al., 2012; McCoy et al., 2015), (v) in line with the Government PSSN thus ensuring policy relevance and alignment (de Hoop et al., 2020; McCoy et al., 2015).

In the case of in-kind based transfers (IKTs) particularly those concerned with food, the composition of the food basket are determined with the input of experts in academic, government, and donor organizations and was selected to apply to other settings, not cost-prohibitive and use foods available in the local markets (McCoy et al., 2015). Implementers strive to ensure that the transfer value is also in line with the nutrition requirements of specific age groups and the school feeding policies and guidelines in the country (Wang et al., 2022).

### 4.6. Duration of Exposure

Considering years of operation, which translates to the duration of exposure to SSN programs, our review has found that the SSNs in Tanzania do not have automatic exit strategy of beneficiaries (recertification program). The reasons are twofold: *first,* most SSNs were designed as time-bound or short-term interventions, for which recertification was not necessary. *Second*, SSNs were initially conceived to alleviate chronic poverty; thus, a maximum duration was not needed (Medellín et al., 2015). A guiding theory was that chronic poverty would ultimately be reduced as better-educated and healthier young adults found better employment and earned incomes above the poverty level. It is from this notion that in the first place, SSNs did not aim at increasing the income generation capacity of the adults in the beneficiary households.

Our review has found that most of the CCTs were conducted as a randomized control trial to evaluate the impact of CCTs on selected public health intervention outcomes to gain understand of how they work. The World Bank (2019a) argue that, since the CCTs under the PSSN program began delivering payments in 2015, it is too early to conduct a complete recertification process. The implication is that, as these programs mature, they will likely develop recertification processes, especially if the country experiences economic growth and social mobility (Medellín et al., 2015).

### 4.7. Social Safety Net Outcomes

In consideration of social safety nets outcomes and in light of this review, our general interpretation is that, *first*, although over the years SSNs have been used as the policy instrument to fight against poverty and vulnerability, to-date CCTs have shown great promise in the public health intervention as financial incentives to reduce HIV incidence, increase HIV testing and to link to care after diagnosis, viral suppression and retention on ART, health care retention, reduction in sexually transmitted infections, risky sexual behavior among AGYW, viral suppression and retention on ART, and weight gain (Fahey et al., 2020; McCoy et al., 2015). *Second,* generally, the most addressed outcomes by majority of SSNs are those related to vulnerability and food insecurity. This is in line with the prime objective of SSNs which is "to fight against poverty and vulnerability" (Ahmed et al., 2014; Baird et al., 2014; Fiszbein and Schady, 2009; Handa and Davis, 2006; Ralston et al., 2017; World Bank, 1996, 2014b, 2017).

### 4.8. Implementation Challenges

The review reports several SSNs implementation challenges. *First* are challenges related to the targeting of beneficiaries-in particular community-based targeting (CBT). The approach works on the premise that community members know much about temporary shocks and personal circumstances and can better assess which households in their communities may be most in need. In our review, it appears that CBT did not work correctly. In some instances, the approach resulted in "elite capture." Thus, in some areas, local elites who were involved in the process selected beneficiaries among their close friends and relatives and sometimes even kept the transfers for themselves which created unease among recipients and non-recipients' coverage. Generally, some social safety nets are not well-targeted at the moment; they do not support the poor (Smith, 2011). Despite the PMT claimed to be effective in targeting beneficiaries yet households were not fully satisfied with the selection process around the PMT, indicating better communication is needed in the future (World Bank, 2019a).

*Second* is the dropout rate, or attrition, whereby recipients discontinue the use of interventions either entirely or enough that the benefit from the intervention is negligible. This is more pronounced for SSNs (CCTs) addressing public health outcomes where compliance with conditionalities limits participation and increases dropouts, and this is especially when compliance-related constraints are high and cash incentives are relatively low. This finding is in line with Fahey et al (2021) who observed a similar phenomenon when studying the durability of the effects of short-term economic incentives for clinic attendance among HIV-positive adults in Tanzania.

*Third* challenge concerns the small transfer value for SSNs especially the transfer (CCT) tied to secondary school attendance under the PSSN program. The small transfer value affects progression to secondary school and retention due to the higher opportunity costs of schooling compared to labour. Students compare the amount which would be paid if they had opted to offer their labour and that paid as an incentive for them to attend to school. The former is higher than the latter, hence the dropout. This observation concurs with other scholars who argue that the SSN transfer value provided is too small to push the extreme poor out of poverty (Berg and Cuong, 2011; Molyneux et al., 2016;

Slater, 2011). It is so even the World Bank (2019a) recommended the recalibration of the transfer amount for CCTs under PSSN in Tanzania to account for opportunity cost and other costs and explore the possibility of bonuses for primary completion and secondary enrollment.

*Fourth* is the SSN transfer delays or missing payments. The transfer delays resulted in severe consequences. They included: Recipients not making on-time investments such as the purchase of fertilizer, adding capital to businesses, or adding livestock in the case of CCTs (Zuilkowski and Palermo, 2020) or early planting and fertilizer application in the case of agricultural input subsidy such as delaying the purchase of fertilizer for their fields, which brought a negative impact on their crop yield for the season (Rutsaert et al., 2021; World Bank, 2014a).

*Firth* is the reluctance of parents to contribute food for their children in the case of school feeding programs coupled with the likelihood that parents reduce child meals at home expecting to feed at school. The review reveals that the reluctance to contribute is exacerbated by the misinterpretation of the "Elimu-Bure" (free education) policy by the parents. The findings are in line with Nemes (2018) who observed a similar trend in 72 public primary schools in the Bahi district (Dodoma region); as a result, none of the schools managed to provide school lunches during the post-WFP period. It is clear to this end that the reluctance of parents to contribute to school feeding jeopardizes the sustainability after the phasing out of donor support.

*Sixth* is the challenges related sustainability of SSNs. All of the reviewed SSN programs in Tanzania are mostly externally financed by donors. This challenge poses serious questions, including how sustainable are they? what is the probability that donors will continue financing these programs? The questions on the sustainability of social safety nets also concur with George et al. (2021) who widely discuss the challenges in shifting the financing of PSSN from external funding to government. We examine ssustainability in its three dimensions: fiscal, political, and administrative. In many instances, the review has found that SSNs in Tanzania lack fiscal sustainability, which is exacerbated by the fact DPs fund more than half or full of the SSN financing (Beegle et al., 2018a). From the fiscal sustainability point of view, we argue that the SSNs that are fully financed by tax revenues are more likely to be sustainable than those relied on deficit spending, borrowing from international aid agencies, or grants from donor agencies.

## 5. CONCLUSION

Social safety nets (SSNs) in Africa have become a key strategy for addressing poverty and vulnerability. However, the effectiveness of this policy instrument is dependent on design and implementation features. Much of the evidence on the design and implementation of SSNs from systematic literature reviews is skewed toward Latin America, Asia, and to a limited extent, Africa. We use the preferred reporting items for systematic reviews and meta-analyses (PRISMA) methodology to conduct systematic review in the Tanzanian context.

Specifically, this systematic review addresses two overarching research questions: *first*, what are the types of social safety net interventions that have been or are being implemented in Tanzania since the year 2000? *Second*, what evidence of the design and implementation features of social safety net programs can be discerned in existing literature? With respect to design features, we examined SSNs types, target-groups, transfer value and frequency, coverage, duration of exposure, and outcomes. For implementation features, we examined conditionality, targeting and payment mechanisms and implementation challenges.

A total of 687 individual records were identified from databases (PubMed, IDEAS/RePEc, ScienceDirect, and World Bank OKR) whereas 1 180 records were identified from other sources using Google Scholar. After removing duplicates and screening, finally, a total of 17 articles were included for the systematic review. Our review is not without limitations**:** the risk of bias performed did not include the grey literature mainly because the existing methods for assessing risk of bias do not fit for grey literature and information (Higgins et al., 2011; Page et al., 2018). Thus, the risk of bias assessment for grey literature and information was mainly based on the value of information paradigm (Wong et al. 2013), where individual grey literature was included if and only if the information contained was considered relevant and rigorous enough to help contribute to answering the research questions.

*With first research question,* we found that there were more than 12 SSNs types in Tanzania, disaggregated into cash-based transfers, in-kind based transfers and public works. They used geographical, administrative and community-based targeting mechanisms to reach out the SSNs target groups. This is consistent with the view that every country in Sub-Saharan Africa is implementing at least one type of SSNs.

*With second research question*, generally we found that recipients of SSNs types are no longer confined to poverty and vulnerability indicators only, rather some were used as financial incentives to reduce HIV incidence, increase HIV testing and linking to care after diagnosis. With respect to transfer value, we found a transfer value of 30% of the average per-capita consumption, although we need to exercise caution in interpreting this because computations in most of SSNs reviewed was not based on per-capita-poverty line to enable comparison with international rule of thumb which recommend transfer value of 20-40%. Subsequently, we found SSNs do not have recertification program because most SSNs were designed as time-bound, for which recertification was not necessary; and they were initially conceived to alleviate chronic poverty; thus, a maximum duration was not needed. Yet, existing design and implementation features generates inefficiency through duplications and overlaps, and limits potential coverage and performance.

## 6. IMPLICATIONS FOR POLICY AND PRACTICE

In this systematic review we found that the existing design and implementation features generates inefficiency through

duplications and overlaps, and limits potential coverage and performance. Also, it greatly adds to coordination and information costs and reduces the power of the SSN programs. These have important implications for policy and practice. This call for a need for reducing fragmentation through building a well-coordinated and integrated social safety net system. Equally important is to have a country's single registry system for beneficiaries as a key ingredient for reducing SSNs fragmentation and enhancing institutional coherence. Further, the existence of various types of SSNs does not guarantee graduation of beneficiaries from poverty and food insecurity. Emerging lessons globally show that to ensure that SSNs work coherently, effectively and efficiently, it is important to build a system of social safety net that work together as a portfolio to cover multiple outcomes across the poverty and vulnerability space.

Furthermore, the SSNs implementers in the country may also require to enact the standard SSNs guideline to leverage the efforts of various key actors. The Government might need to be in the driver's seat to spearhead the process. The guideline will provide overall guidance on the design and implementation of SSNs in the country. This will allow any SSN implementing agency to abide with such guidance on various key design and implementation features.

The current state of SSNs in Tanzania and future directions for improvement could benefit substantially from evaluative studies geared at strengthening the evidence-base. Scientifically demonstrating the effectiveness of SSNs has been an important feature of the emergence of the SSNs agenda, and has helped to build political and social buy-in for these programs. Our review shows that SSNs are among the best-evaluated interventions in development space, through experimental and other robust evaluation techniques. However, the evidence-base is limited for some outcomes such as vulnerability to poverty and food insecurity. This calls for more evidence for the little-studied outcomes.

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# SUPPLEMENTARY MATERIAL 2.1

| Core Design Feature | 1 African Development Bank (2022) | 2 Chzhen et al. (2021) | 3 de Hoop et al. (2020) | 4 de Walque et al. (2014) | 5 Evans et al. (2014) | 6 Fahey et al.(2020) | 7 Gichane et al.(2022) | 8 Heslop & Hofmann (2014) | 9 McCoy et al. (2015) |
|---|---|---|---|---|---|---|---|---|---|
| Program | Agriculture input voucher scheme (NAIVS) | Cash Plus Program | Public Works Program | RESPECT | Community-Based Conditional Cash Transfers | Financial incentive program for improving retention in HIV Care and Viral Suppression | Sauti/WORTH+ cash transfer program | Kwa Wazee Program | Nutrition Assessment, Counseling, and Support (NACS) |
| Type of SSN | Agric Input Subsidy | Conditional Cash Transfer (CCT) | Cash for Work (CFW) | Conditional Cash Transfer (CCT) | Conditional Cash Transfer (CCT) | Conditional Cash Transfer (CCT) | Unconditional Cash Transfer (UCT) | UCT & Elderly and orphans' allowance | CCT & Food assistance |
| Cash/ In-kind transfers | In-kind transfers | Cash | Cash | Cash | Cash | Cash | Cash | Cash | Cash & In-kind |
| Target groups | Smallholders (cultivating on average 2ha) | Adolescents youth aged 14-19 years | Poor and vulnerable households with at least one adult able to work | Young aged 18-30 years at high risk of HIV infection | Poor and vulnerable households | People living with HIV/AIDS (PLHIV), initiated ART ≤30 days before | Adolescent Girls and Young Women (AGYW) | UCT = Vulnerable elderly who are 60 years and supporting orphans; Elderly and orphans' allowance = respective groups who are also poor and vulnerable | People living with HIV/AIDS (PLHIV) |
| Transfer value | Subsidised certified seeds, fertilisers and pesticides | USD 80 | USD 1.35 | USD 10 - 20 | USD 12 - 36 | USD 4.5 - 10 | USD 33 | USD 7.50 + USD 4.40 for each grand-child | For Cash = USD 11<br>For Inkind = 12 kg of maize meal, 3 kg of groundnuts, and 3 kg of beans monthly |
| Frequency | Annually | Bimonthly | Per month for up to four months | Every four months | Bimonthly | Monthly | Trimonthly | Monthly | Monthly |
| Coverage | Northern and Southern Highlands, Lake, Eastern and Central Zones | Rungwe, Busokelo, Mufindi, and Mafinga (2,458 participants) | All regions both, in Tanzania Mainland and Zanzibar | Dar es Salaam, Kilombero/ Ulanga (2,399 participants) | Bagamoyo, Chamwino, and Kibaha (2,500 households) | Shinyanga Region (530 patients) | 14 Regions including Iringa, Njombe, Mbeya, Shinyanga, Dar es Salaam, Mtwara, Tabora, Singida, Dodoma, Lindi and Arusha | Muleba District: 1,031 older people + 327 grandchildren reached (2019) | Shinyanga (788 participants) |
| Duration of exposure | 2022 - ongoing | 2018-2019 | Still in operation until now (the year 2022). | 2009 - 2010 | 2010-2012 | April, 2018- Dec, 2018 | 2015 - 2020 | 2003 to present | 2014-2015 |

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|---|---|---|---|---|---|---|---|---|---|
| Outcomes | Crop productivity and food security | Experiences of violence; help-seeking related to violence | Consumption, Food Insecurity and Vulnerability | Reduction in sexually transmitted infections | Health, education, and consumption gains | Viral suppression and Retention on ART<br>Health care retention; viral suppression | Risky sexual behavior among AGYW; & Economic vulnerabilities | Reduction in begging; increased school attendance; and food consumption | Health care retention; food security; weight gain; viral suppression |
| **Core Design Feature** | **10**<br>**PCI (2021)** | **11**<br>**PCI (2022)** | **12**<br>**Smith (2011)** | **13**<br>**USDA (2020)** | **14**<br>**Wang et al.(2022)** | **15**<br>**WFP (2017)** | **16**<br>**World Bank (2016)** | **17**<br>**Xavier et al.(2012)** | |
| Program | McGovern-Dole Food for Education (FFE) program | Pamoja Tuwalishe | Public Works Program+SCF Cash Transfer Program+MVC program+NFRA+School Feeding Program (SFP) | Chakula Chetu | Meals , Education , and Gardens for In- School Adolescents ( MEGA ) | Protracted relief and recovery operations (PRRO) program | Productive Social Safety Net (PSSN) & Vulnerable Group Program (VGP) | Agriculture input voucher scheme (NAIVS) | |
| Type of SSN | School feeding | School feeding | PWs = FFW and FFA; SCF = UCT; MVC program = Education and health subsidies; NFRA = Food subsidies; SFP = School feeding | School feeding | School feeding | Food assistance & UCT | PSSN = CCT ; PWs ; UCT; & VGP = Elderly, orphans and disabled allowance | Agric Input Subsidy | |
| Cash/ In-kind transfers | In-kind transfers | In-kind transfers | FFW and FFA = In-kind transfers; UCT = Cash; Education and health subsidies = In-kind; Food subsidies = In-kind; School feeding = In-kind | In-kind transfers | In-kind transfers | Food assistance = In-kind transfers; UCT = Cash | Cash | In-kind transfers | |
| Target groups | Pupils in Pre and Primary Schools | Pupils in Pre and Primary Schools | FFW and FFA = Vulnerable and food insecure households living in the Districts judged to be food insecure; UCT = Poor households headed by a single mother or grandmother supporting vulnerable children; Education and health subsidies = Orphans and other vulnerable children; Food subsidies = poor and vulnerables; School feeding = Pupils in Primary Schools | Pupils in Pre and Primary Schools | Students in Secondary Schools | Food assistance = Refugees; UCT = People with Special Needs (PSNs) among Refugees | CCT = Poor and vulnerable households; UCT = Poor and vulnerable households; PWs = Poor and vulnerable households with at least one adult aged 18-65 years who is able to work; Elderly, orphans and disabled allowance = Respective groups who are also poor and vulnerable | Smallholder households (cultivating <1ha of maize or rice) | |

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| Transfer value | ugali & beans | ugali & beans | FFW and FFA = 3 Kg. of maize, 450g of pulses, and 225g of vegetable oil per day worked; UCT = TZS 6,000 + TZS 3,000 for each grand-child; Education and health subsidies = Actual value of the transfer not established; Food subsidies = for 12 kg of maize per month for 2-3 months; School feeding = breakfast and lunch equivalent to 718 Kcal | ugali & beans | 150g of maize flour, 150g of kidney beans and 15g of cooking oil, providing at least 212g of carbohydrates, 42g of protein and 19.5g of fat | Food assistance = 380 grams of maize meal, 120 grams of beans or split peas, 50 grams of super cereal with sugar, 20 grams of fortified vegetable oil and 5 grams of iodized salt per person; UCT = USD 10 | CCT = USD 6 - 16.3; UCT = USD 6; PWs = USD 1.3; Elderly, orphans and disabled allowance = USD 8,500 – 10,000 | Three (3) Input Vouchers |
| Frequency | Four out of five days of the week | School Days | FFW and FFA = Per day worked, average participant works about 30 days; UCT = Monthly; Education and health subsidies = Once off suppport; Food subsidies = two releases per year; School feeding = Daily for an average of 194 school days a year | School Days | Every school day | Food assistance = Daily ration; UCT = Monthly | CCT = Monthly; UCT = Monthly; PWs = 60 working days per year spread over a period of six months; Elderly, orphans and disabled allowance = One-off grant | Annually |
| Coverage | Mara | Mara and Dodoma | FFW and FFA = Dodoma, Tabora and Mwanza regions; UCT = Lindi; Education and health subsidies = 85 Districts covering 600,000 children annually ; a plan to reach 746,000 individual children is underway; Food subsidies = varies yearly depending on severity; School feeding = Drought-prone, food-insecure districts of central and northern Tanzania reaching more than 700,000 pupils | 16 Schools in Mara Region with 18,291 Pupils | 6 Schools and 750 students in Chamwino, Dodoma Region | Food assistance = Kigoma region in-particula Nyarugusu camp covering 264,230 refugees; UCT = Kigoma (Nyarugusu camp) 10,000 beneficiaries (2,500 households) | CCT = National (1.1 Million households); UCT = National (1.1 Million households); PWs = National (837,573 households by 2023); Elderly, orphans and disabled allowance = One-off grant = all regions reaching about 20,000 persons per year. | Nationwide program |

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| Duration of exposure | 2010-2021 | 2022-2027 | FFW and FFA = 2009; UCT = 2007 - 2009; Education and health subsidies = Once off support; Food subsidies = Once off; School feeding = 2007 to present | 2017-2021 | 24/01/2022-31/12/2022 | Food assistance = July 01, 2014 up to June 30, 2017; UCT = 2014 - 2017 | PSSN I = 2015 - 2019; PSSN II = 2019/20-2023; Elderly, orphans and disabled allowance in TASAF II = 2005-2012 | 2008/09 to 2013/14 |
| Outcomes | Increased school enrollment, attendance, retention in primary schools | Student attendance, attentiveness, and overall academic performance | FFW and FFA = Food insecurity and vulnerability; UCT = Vulnerability to poverty and food insecurity; Education and health subsidies = Poverty and vulnerability among children; Food subsidies = Vulnerability to food insecurity; School feeding = school enrollment, attendance, and retention | Increased school enrollment, attendance, retention in primary schools, performance | Educational outcomes and knowledge, attitudes and practices regarding nutrition and health for adolescents | Food assistance = Food and nutrition security; UCT = Food security | CCT = Consumption and food security, education, health, coping strategies, assets and intra-household dynamics; UCT = Basic consumption PWs = Maintain consumption; food insecurity and vulnerability; Elderly, orphans and disabled allowance = vulnerability | Crop productivity and food security |

| Implementation Features | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| **Core Design Feature** | **African Development Bank (2022)** | **Chzhen et al. (2021)** | **de Hoop et al (2020)** | **de Walque et al (2014)** | **Evans et al. (2014)** | **Fahey et al.(2020)** | **Gichane et al.(2022)** | **Heslop & Hofmann (2014)** | **McCoy et al.(2015)** |
| Program | Agriculture input voucher scheme (NAIVS) | Cash Plus Program | Public Works Program | RESPECT | Community-Based Conditional Cash Transfers | Financial incentive program for improving retention in HIV Care and Viral Suppression | Sauti/WORTH+ cash transfer program | Kwa Wazee Program | Nutrition Assessment, Counseling, and Support (NACS) |
| Type of SSN | Agric Input Subsidy | Conditional Cash Transfer (CCT) | PWs- Cash for Work (CFW) | Conditional Cash Transfer (CCT) | Conditional Cash Transfer (CCT) | Conditional Cash Transfer (CCT) | Unconditional Cash Transfer (UCT) | UCT & Elderly and orphans' allowance | Conditional Cash Transfer (CCT) |
| Implementing organization | Ministry of Agriculture (MoA) | TASAF with technical support from UNICEF Tanzania and TACAIDS | Tanzania Social Action Fund (TASAF) | World Bank, University of California – Berkeley and Ifakara Health Institute | Tanzania Social Action Fund (TASAF) | Jointly: University of California, Berkeley (USA), Ministry of Health (URT), and School of Hygiene and Tropical Medicine (UK) | Jhpiego in partenership with EngenderHealth, Pact and National Institute for Medical Research | Kwa Wazee | Jointly: University of California, Berkeley (USA), Ministry of Health (URT), and School of Hygiene and Tropical Medicine (UK) |
| Conditionality | Unconditional in-kind transfer | Attending trainings and developing an approved educational or business plan | Conditioned to participating in public works | Negative sexually transmitted infection test results | Child school enrolment and 80% minimum level of school attendance; visit to health facility 6 times per year | Monthly clinic attendance | Unconditional | Unconditional | Monthly visit to health facility with their HIV care provider |
| Targeting mechanisms | Geographical and community | Geographical & Administrative | Geographical, Community and PMT | Administrative Targeting | Community targeting | Administrative Targeting | Administrative Targeting | Community targeting | Administrative Targeting |
| Payment mechanisms | Electronic vouchers using mobile phones | Mobile money service | Electronic payments | Cash payments (given in an envelope) | Cash payment | Mobile money service using mobile health technology (mHealth) | Cash-based payment mechanisms | Cash-based payment mechanisms | Mobile money service (M-Pesa) |

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| Implementation challenges | Not reported - since it is a new project | Not reported | Coverage in terms of number of beneficiaries is too small & absence of a rigorous impact evaluation | Not reported | Targeting mechanism especially balancing community targeting and PMT; data accuracy for the registry of beneficiaries | Not reported | Targeting of beneficiaries and payment challenges due to remoteness | Community targeting has resulted in weak performance | Not reported |
| **Implementation Features** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | |
| **Core Design Feature** | **PCI (2021)** | **PCI (2022)** | **Smith (2011)** | **USDA (2020)** | **Wang et al.(2022)** | **WFP (2017)** | **World Bank (2016)** | **Xavier et al.(2012)** | |
| Program | Tanzania McGovern-Dole International Food for Education and Child Nutrition Program | Pamoja Tuwalishe | Public Works Program+SCF Cash Transfer Program+MVC program+NFRA+School Feeding Program (SFP) | Chakula Chetu | Meals , Education , and Gardens for In- School Adolescents ( MEGA ) | Protracted relief and recovery operations (PRRO) program | Productive Social Safety Net (PSSN) & Vulnerable Group Program (VGP) | Agriculture input voucher scheme (NAIVS) | |
| Type of SSN | School feeding | School feeding | PWs = FFW and FFA; SCF = UCT; MVC program = Education and health subsidies; NFRA = Food subsidies; SFP = School feeding | School feeding | School feeding | Food assistance & UCT | PSSN = CCT ; PWs ; UCT; & VGP = Elderly, orphans and disabled allowance | Agric Input Subsidy | |
| Implementing organization | Project Concern International (PCI) | Project Concern International (PCI) | FFW and FFA = World Food Program (WFP); UCT = Save the Children; Education and health subsidies = PACT and Family Health International; Food subsidies = Ministry of Agriculture; School feeding = WFP, MoEST and LGAs | Project Concern International (PCI) | Harvard University (USA); UDOM (Tanzania); and Africa Academy for Public Health (Tanzania) | World Food Program (WFP) | Tanzania Social Action Fund (TASAF) | Ministry of Agriculture (MoA) | |

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|---|---|---|---|---|---|---|---|---|
| Conditionality | Unconditional | Unconditional | FFW and FFA = Conditioned to participating in public works; UCT = Uncondtional; Education and health subsidies = Uncondtional; Food subsidies = Uncondtional; School feeding = Uncondtional | Unconditional | Unconditional | Unconditional | CCT = Child school enrolment ; school attendance; Health vist; UCT = Child school enrolment ; school attendance; Health vist PWs = Conditioned to participating in public works; Elderly, orphans and disabled allowance = Unconditional | Unconditional in-kind transfer |
| Targeting mechanisms | Geographical & Administrative targeting | Geographical & Administrative targeting | FFW and FFA = Geographical & Community targeting; UCT = Community targeting; Education and health subsidies = Community targeting; Food subsidies = Geographical and community targeting; School feeding = Geographical & Administrative targeting | Geographical & Administrative targeting | Geographical & Administrative targeting | Geographical & Administrative targeting | CCT = Geographical, Community & PMT; UCT = Geographical,Community & PMT; PWs = Participatory community-based planning approach; Elderly, orphans and disabled allowance = community and geographic targeting | Geographical and community |
| Payment mechanisms | Students get food at school | Students get food at school | FFW and FFA = Food ration is collected at the dedicated centers; UCT = Cash-based payment mechanisms; Education and health subsidies = In person delivery; Food subsidies = In person delivery; School feeding = on-site meals | Students get food at school | Students get food at school | Food assistance = Individual scooping; UCT = cash-based payment mechanisms | CCT ; PWs ; & UCT = Mobile money service; Elderly, orphans and disabled allowance = on a cash basis | paper-based and collected in person at private agro-dealers shops |
| Implementation challenges | Reluctance of parents to contribute food for their children and cash for paying the cook. | Not reported | FFW and FFA = Low caverage and absence of rigorous impact evaluation; UCT = Sustainability; Education and health subsidies = short-term delivery with no graduation period + small transfers + limited resources available to respond to the many needs; Food subsidies = Accuracy targeting is missing; School feeding = Parents reduce child meals at home expecting feeding at school | Not reported | Not reported | Food assistance = Lack of adequate infrastructure for food distributions points and lack of beneficiary addresses ; UCT = Not reported | CCT = Targeting mechanism; data accuracy; small transfer value especially the transfer tied to secondary school; payment delays and missing; UCT = CCT PWs = payment delays and missing; Elderly, orphans and disabled allowance = Higher transfer level thus limiting the capacity to expand the coverage | Delayed delivery of vouchers, and program knowledge and graduation strategies |

# SUPPLEMENTARY MATERIAL 2.2

| Methodological quality criteria | 1 | 2 |
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| | Gichane et al.(2022) | Smith (2011) |
| 1.1. Is the qualitative approach appropriate to answer the research question? | Yes | Yes |
| 1.2. Are the qualitative data collection methods adequate to address the research question? | Yes | No |
| 1.3. Are the findings adequately derived from the data? | Yes | Yes |
| 1.4. Is the interpretation of results sufficiently substantiated by data? | Yes | Yes |
| 1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation? | Yes | No |

| Methodological quality criteria | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| | Chzhen et al. (2021) | de Walque et al (2014) | Evans et al. (2014) | Fahey et al.(2020) | Wang et al.(2022) | World Bank (2016) | Xavier et al.(2012) |
| 2.1. Is randomization appropriately performed? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2.2. Are the groups comparable at baseline? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2.3. Are there complete outcome data? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2.4. Are outcome assessors blinded to the intervention provided? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2.5 Did the participants adhere to the assigned intervention? | Attrition observed | Attrition observed | Attrition observed | Attrition observed | Attrition observed | Yes | Yes |

| Methodological quality criteria | 1 |
|---|---|
| | de Hoop et al (2020) |
| 5.1. Is there an adequate rationale for using a mixed method design to address the research question? | Yes |
| 5.2. Are the different components of the study effectively integrated to answer the research question? | Yes |
| 5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? | Yes |
| 5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed? | No |
| 5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved? | Yes |