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Tanzania's story of change in nutrition: Political commitment, innovation and shrinking political space



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ABSTRACT

In the past 15 years, Tanzania has made considerable progress in the fight against child undernutrition. This paper analyses in what respects an enabling environment for nutrition action in Tanzania has emerged. It critically investigates the nature of government political commitment and assesses the breadth and depth of a range of public policies, initiatives and actions within and across nutrition-specific and nutrition-sensitive sectors, and at the national, sub-national and community levels. It finds that Tanzania has undertaken substantial policy innovation and institutional development, carrying significant promise to accelerate nutrition improvements, provided they are accompanied by stronger domestic investments, and greater political space enabling communities to hold the government to account for its performance combating malnutrition.

1. Introduction

During the past 15 years, Tanzania has made considerable progress in the fight against child undernutrition. Stunting levels for children under five years of age have seen gradual declines, from nationwide averages of 48 per cent in 1999, to 44 per cent in 2005, and to 34 per cent in 2015 (Government of Tanzania, 2016). A recent re-analysis of the Demographic and Health Survey data suggests that official figures are underreporting the achievements, finding stunting levels to have declined to 30 per cent in 2015 (Headey et al., 2019).

This downward trend is replicated among neighbouring countries' under-five stunting rates, with Malawi, Kenya and Uganda exhibiting similar reductions. For example, between 2003 and 2014, Kenya's under-five stunting rate declined from 36 per cent to 26 per cent (Government of Kenya, 2015). Faster declines over a similar period were noted in South East Asia, where Nepal experienced a reduction in stunting level of 21 per cent between 2001 and 2016 (Government of Nepal et al., 2017) and Cambodia a decline of 18 per cent over a 14 year period (Government of Cambodia et al., 2015). These figures have contributed to the overall global reduction in stunting, with levels falling by more than 10 per cent, from 33 per cent in 2000 to 22 per cent in 2017 (UNICEF et al., 2018).

Several studies have sought to explain the reduction of stunting in Tanzania by exploring the drivers of improved nutritional status, with

notable attention given to the positive role of better access to general health interventions, wealth gains and strengthened education of mothers (Masanja et al., 2008; Semali et al., 2015). Using a decomposition analysis to quantify the empirical drivers of positive change in underfives' height-for-age, Headey et al. (2019) find dramatic increases in infants' birth size to be the most significant factor, attributed to, in order of significance, improved maternal health monitoring, malaria prevention, HIV infection testing and improved water and sanitation facilities. However, overall, relatively little has been reported on the role of the enabling environment for nutrition action in Tanzania.

This paper hence seeks to investigate the ways in which changes in the enabling environment may have underpinned the contributions of determinant factors towards declining stunting rates. Gillespie et al. (2013, p. 553) define enabling environments as the 'political and policy processes that build and sustain momentum for the effective implementation of actions that reduce undernutrition'. Drawing upon this definition, we examine the role that the Government of Tanzania has played. The study thus adds to a portfolio of country case studies documenting the mechanisms by which nutrition has improved over the past 15 years in several countries as part of the *Stories of Change in Nutrition* project (Gillespie and Van den Bold, 2017; Harris et al., 2017; Kampman et al., 2017; Nisbett et al., 2017).

We accordingly investigate the nature of government political commitment and assess the breadth and depth of a range of public policies,

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initiatives and actions within and across nutrition-specific and nutrition-sensitive sectors, as these operate at the national, sub-national and community levels. We apply a framework of political commitment devised by Brinkerhoff (2000) and adapted by te Lintelo and Lakshman (2015). This framework allows for an investigation of a range of aspects widely deemed essential to the acceleration of undernutrition reduction (Black et al., 2013; Gillespie et al., 2013; Pelletier et al., 2012): policy, legal and financial efforts; horizontal and vertical coordination between sectors within and outside government; the facilitation of evidence in decision-making; the fostering of institutional capacities; and the incentives necessary to deliver the implementation of measures at subnational levels.

Although we identify several clear weaknesses and recognise that evidence is not always clear-cut and in important instances absent, we consider that on balance the Government of Tanzania has expressed significant initiative indicating political commitment to combat undernutrition. With significant support and encouragement from the international community, it has put in place a range of innovative policy initiatives and constructed institutional infrastructures that contribute towards establishing an enabling environment with potential to facilitate improved child undernutrition outcomes. Our fieldwork in two districts also provides some evidence that rural communities are slowly witnessing an improving enabling environment.

2. Data and methods

Primary and secondary data were drawn from three sources: national policy documents, and qualitative interviews with national stakeholders and community members.

2.1. Study sample

2.1.1. Policy documents

Twenty-seven policy documents from the period 1996–2016 were identified for this study, both from directly nutrition-related sections of government and other key nutrition-sensitive sectors. The broad time-frame allowed for detection of important changes in which nutrition was envisaged, framed and acted on as a multisectoral developmental problem.

Our analysis drew on and added to initial work by the Tanzania Food and Nutrition Centre (TFNC) and United Nations Renewed Efforts Against Child Hunger and Undernutrition (UNREACH) in their 2016 Policy and Programme Overview (Johnson, 2016). Firstly, we reviewed a broad set of Government of Tanzania policies, strategies, and implementation guidelines to determine 1) whether malnutrition was acknowledged as a problem, 2) the inclusion of nutrition-specific or sensitive actions and 3) whether indicators measuring progress of nutrition work or budgets were presented.

Secondly, we investigated how well each policy document addressed 19 pre-identified nutrition-specific actions (see Annex 1) selected by TFNC and UNREACH as necessary to address the most pressing nutrition issues in Tanzania. We updated these indicators with other key factors identified in Headey et al.'s (2019) analysis of Tanzania's decline in stunting.

2.1.2. National and local level stakeholders

This article builds on research conducted in Tanzania by the authors from 2012-17, during which a range of 60–70 nutrition policy stakeholders had been engaged in workshops and in interviews, to produce research notes on the nutrition policy process and to generate policy mappings. In addition, a set of qualitative semi-structured interviews were conducted with 11 national level policy stakeholders in 2018, as well as with 20 government officials at district and regional levels.

We analysed data from policy documents and national/sub-national stakeholder interviews using a code list informed by the literature and nine indicators set out in our conceptual framework (section 2.2). Interviews were guided by a grid of structured questions tailored to preidentified functionaries. A common set of *core* questions was asked

across all frontline worker interviews, with additional questions tailored to the interviewee's area of expertise (i.e. health, sanitation, social protection, agriculture and education) to investigate their perceptions of major policy interventions and socio-economic changes affecting local nutrition outcomes in the last 15 years.

2.1.3. Community members

Two administrative districts in Tanzania were identified for community data collection based upon their distinct trajectories of change in child stunting. One district exhibited rapid improvements in stunting rates since 2010 (Mpwapwa District, Dodoma Region), while the other experienced stagnation after a period of decline (Iringa District, Iringa Region). Both regions have received significant government and donor investments to address nutrition. Within each district two villages were identified in consultation with the District Nutrition Officer, one based on proximity to District Headquarters and the other in a more remote location.

To gain community-level insights into changes in the nutrition situation and service delivery over a 15-year period, interviewees were selected in all four villages by frontline workers and snowball sampling. Two Focus Group Discussions (FGDs) were conducted in each village. Each group involved five to seven mothers. One group covered mothers whose youngest child is in the 0–3 age group, while the other group included mothers with youngest child in the 4–7 age group. While most mothers had multiple children born in the period under study, by asking the mother to focus on her youngest child we aimed to minimise recall bias.

All interviewees and FGD participants were informed of the purpose of the research and guaranteed anonymity prior to recording, with recorded informed consent obtained in each instance. Fieldwork was conducted by two female Tanzanian nutrition researchers who used an FGD manual and enquired about the general situation in the village, the nutrition situation and nutrition services. FGDs generally lasted 1.5 h and were conducted in the language respondents felt most comfortable using. The most engaged and vocal participant was then chosen for a semi-structured follow-up interview to further explore topics raised in the FGD. All discussions were digitally recorded, then translated and transcribed into English where the local language was used. Transcripts were then reviewed and coded by two authors.

2.2. Conceptual framework

To analyse the evidence, we used a framework of political commitment devised by Brinkerhoff (2000) and adapted by te Lintelo and Lakshman (2015). The framework covers major politico-institutional factors driving undernutrition reduction (Gillespie et al., 2013; Heaver, 2005; Pelletier et al., 2012). By examining qualitative evidence (findings from document analysis and interviews) through the lens of nine key indicators that jointly present an analytical framework of commitment, the presence of an enabling environment for nutrition action can be detected. The nine indicators cover both policy intent and implementation action, summarised in Table 1.

2.3. Analysis

Data from policy documents and national/sub-national stakeholder interviews were analysed using a code list developed from the political commitment framework. Codes were organised into numerous sub-themes within each section, developed inductively and iteratively by two authors upon analysis of transcripts' themes. Additionally, analysis sought to reference the key drivers of stunting reduction factors identified by Headey et al. (2019). Community inputs were similarly reviewed using the code

¹ Instead of delineating the analysis into two broader themes of 'commitment' and 'coherence', akin to previous *Stories of Change in Nutrition* studies (Kampman et al., 2017), we have opted to absorb coherence in to the 'implementation' indicator to facilitate a more cohesive analysis.

Table 1 Indicators of political commitment.

Indicator	Description
Publicness	Do citizens have the ability to scrutinise public policies? Does physical and online access exist? Do political and policy elites publicly state their support for and prioritisation of the policy agenda?
Voluntary ownership	Are hunger and nutrition policies a donor agenda foisted on developing country governments or 'owned' by national and local governments?
Explicitness	Do governments set clear and realistically attainable policy goals, with specific targets? Are budgets sufficient to address problems? Is nutrition discussed in electoral manifestos?
Irrevocability	Do governments adopt institutional mechanisms to raise the cost of policy reversal and lend credibility? Are there clear budgets and financial tools to make spending promises harder to renege on?
Mobilising support	Do governments mobilise support to build consensus? Are they accountable to a wide range of actors, and permit representation of divergent interests in the policy process?
Analytical rigour	Do governments undertake in-depth assessments of the nutrition problem at hand, and effectively generate and use data to devise technically suitable and politically feasible policy interventions?
Continuity and capacity	Do government go beyond 'one-shot' efforts, sustaining effort (in the face of opposition) until results achieved? Is technical capacity being developed and strengthened?
Implementation	Are there strong relations between spending and coverage of nutrition interventions? Are multisectoral horizontal and vertical coordination mechanisms well-supported?
Credible incentives	Do government bureaucracies provide credible incentives to agencies and individual civil servants to deliver policy initiatives, and reward good performance?

Source: te Lintelo and Lakshman (2015).

list regarding stunting reduction factors, complemented with new codes for other themes repeatedly raised by community members, to deepen the picture of changes perceived by the nutritionally-vulnerable.

3. Results

3.1. Commitment

We run through each of the nine indicators of political commitment set out in Table 1 (above) to consider their relation to enabling environments, covering both nutrition specific and nutrition sensitive areas of intervention.

3.1.1. Publicness

Our policy analysis shows Tanzania's national nutrition policies are easily accessible online, enabling public scrutiny. Nutrition has been integrated into critical national multi-sectoral and standalone policy plans and strategies (see Table 2, Annex). Specific indicators have also been included in the Vision 2025 on National Strategy for Growth and Reduction of Poverty (2010) and the National Five Year Development Plan 2016/17–2020/21.

Within Tanzania's highly centralised political system, top political leaders' public support has been a critical factor in advancing an enabling environment for accelerating stunting reductions: 'When the president is addressing an issue, changes are seen' (Pers. Comm., Member of Parliament, October 2014). Tanzania's fourth President, Dr Jakaya Kikwete (2005–2015), was an important and publicly visible champion for nutrition. He signed Tanzania up to the Scaling Up Nutrition (SUN) movement in 2011 and further issued a 'Presidential Call to Action for Increased Accountability in Tackling the Nutrition Situation in Our Country' (Government of Tanzania, 2013). The Call set out the scale of the nutrition challenge and the government's response. Moreover, Kikwete underscored the importance of nutrition by referring to it as a 'national disaster' (Pers. Comm, nutrition focal person, Ministry of Livestock and Fisheries, October 2014), a label previously issued only to the HIV/AIDS epidemic that devastated communities in previous decades.

3.1.2. Voluntary ownership

Tanzania continues to be significantly dependent on the contributions of bilateral and multilateral donors. Aid constituted 33 per cent of government spending in 2010–11 (Development Partners Group Tanzania (DPG), 2019). Donors have strongly driven the global and Tanzania's nutrition agenda in the last decade, funding 77 per cent of nutrition investments between the 2010 and 2013 (Ministry of Finance and Planning (MoFP) and United Nations Children's Fund (UNICEF),

2018). Nevertheless, former President Kikwete's motivations to place nutrition on the political agenda were said to be personal, as his mother reportedly suffered from goitre, an iodine-deficiency induced ailment (Pers. Comm., food fortification campaigner, July 2018).

Parliamentarians have also demonstrated taking greater voluntary ownership of the nutrition agenda. The Parliamentary Group on Child Rights, Food Security and Nutrition (PG), an informal cross-party caucus of about 40 MPs, have championed nutrition since 2012 with support from the civil society organisation Partnership for Nutrition in Tanzania (PANITA). The PG has capitalised on political reforms adopted in 2007 encouraging greater parliamentary autonomy, debate, strengthened law-making and budget scrutiny roles (Prabhu, 2014). The PG campaigned for political party manifestos for the 2015 elections to give greater attention to nutrition, with some success.

Voluntary ownership of the nutrition agenda is however not assured. Several interview respondents noted that current President Dr John Magufuli (2015-ongoing) has not taken over Kikwete's garb of nutrition champion. However, Vice-President Samia Suluhu Hassan declared taking this role and driving nutrition compact innovations (see 3.1.9), and the Prime Minister started personally chairing the Joint Multisectoral Nutrition Review process from 2017 (see 3.1.7).

3.1.3. Explicitness

The Tanzanian government launched a five-year National Nutrition Strategy (NNS) in 2011 to re-energise implementation of the National Food Policy (1992). The NNS, for the first time, set out explicit goals and nine targets relating to the prevalence of undernutrition, including a reduction of stunting prevalence in children under five from 42 per cent in 2010 to 27 per cent by 2015. The achieved pace of stunting reductions (Headey et al., 2019) suggests that targets were ambitious, but also quite realistic.

3.1.4. Irrevocability

The Government of Tanzania has put in place several legal measures that are more difficult to revoke than ordinary policy measures promoting nutrition. Legislation mandates micro-nutrient fortification of key processed staples, including wheat and maize flour and cooking oil (Government of Tanzania, 2011); and Guidelines on Prevention of Mother to Child Transmission oblige pregnant women taking HIV (blood) tests when first obtaining ante-natal care (Government of Tanzania, 2012).

Significantly too, a range of measures have institutionalised multisectoral policy coordination mechanisms. The 2011 NNS created multisectoral nutrition steering committees (MSCN) at each level of government. The High Level Steering Committee on Nutrition's (HLSCN) started convening representatives from ministries, development partners, civil

society and the private sector at national level. The MSCN have provided a forum to ensure costed nutrition plans and actions are aligned with national policy and monitoring the use of resources. In tandem, nutrition focal point persons were designated across nutrition-sensitive ministries, while a big push was initiated aiming to ensure that each regional and district administration appointed qualified nutritionists as Regional and District Nutrition Officers to support local nutrition steering committees. Elaborate terms of reference and toolkits were created to guide the functioning of the committees and implementation of nutrition policies (Government of Tanzania, 2018a, 2018b).

Financial allocations for nutrition per district/municipal council increased from TZS 58 million in 2011/12 to TZS 217 million in 2014/15 (Government of Tanzania, 2016). A nutrition line was added to the government budget in 2012/13, accompanied by support to councils to ensure nutrition interventions were enshrined in planned budgets. Yet public expenditure reviews for 2010/11-2011/12² indicated inadequate funding of nutrition activities at local level and disbursement delays in allocated funds (Picanyol et al., 2015). Since then, the President's Office for Regional and Local Government (PO-RALG) increased the minimum mandatory nutrition funding allocation per child from TZS 500 in the 2016/17 financial year to TZS 1,000 in 2017/18 (Government of Tanzania, 2017). Critically, this sub-national funding for nutrition activities has to be budgeted by local government authorities but has not been ring-fenced and can therefore be used for other purposes. In addition, the government doubled spending to TZS 11 billion (USD 6 million) in 2017 for local government support to Maternal Infant and Young Child and Adolescent Nutrition (MIYCAN). Furthermore, budget accounting mechanisms (PLANREP) were revised in 2017, allowing for the detailed tracing of nutrition spending across sectors from the district up to the national level. Accordingly, clear budgetary measures have been initiated to make elevated spending promises harder to renege on.

3.1.5. Mobilising support

Multisectoral nutrition steering committees at district, regional and national level offer invited spaces for selected civil society organisations, private sector actors and others to represent diverse values and interests to contribute to nutrition dialogue. Yet, simultaneously, Tanzania has undergone increasing closure of political space for civil society groups and opposition political leaders to voice criticisms and demand accountability of the government. The passing of the Statistics Act (2015), the Cybercrime Act (2015), the Online Content Regulations (2018), and the Statistics Act (Amendments) in 2018 encode in law vaguely-defined offences punishable with minimum jail sentences and financial penalties. In protest, the World Bank and the IMF, among others, have expressed serious reservations and frozen disbursement of aid monies (Reuters, October 3 2018).

3.1.6. Analytical rigour

The generation and use of data to support nutrition policymaking has increased markedly over the past 15 years. Tanzania is now undertaking nationally representative nutrition surveys every 4-5 years and is integrating data collection across health, agriculture and other sectors by gradually harmonising ministries' Management Information Systems (MIS). Another important initiative underway concerns the development of a National Nutrition Scorecard, rolled out in all districts across the country. The scorecard offers a web-based tool providing quarterly snapshots of each district's performance in delivering nutrition interventions and targets specified in the National Multisectoral Nutrition Action Plan to support vertical accountability. Rapidly growing numbers of Tanzanians (23 million out of 52 million in 2017) access the internet (Ngˈwanakilala, 2018). Provided that in future scorecard data is open to scrutiny and freely and easily accessible online

and offline, it may also provide a critical source of evidence for social accountability, for instance, by civil society groups engaging in nutrition advocacy in multisectoral nutrition steering committees.

3.1.7. Continuity and capacity

Nutrition posts existed at regional and district levels until the early 1990s. However, as policy steered towards promoting food security, such roles were replaced by agricultural officers seeking to advance food production (Pers. Comm., Member of Parliament, October 2014). The resulting loss of capacity and attention to health, environmental hygiene and caring aspects of nutrition are somewhat hesitantly being undone by the reinstatement of trained nutritionists at each level and across sectors. An ambitious plan to increase the number of local nutrition workers from 120 to over 600 from 2013 to 2018 (Godfrey, 2017) ultimately did not receive government support, though efforts are being made to reassign trained nutritionists to nutrition officer positions without loss of salary (Pers. Comm, PORALG, July 2019). Nevertheless, our research suggests that the standing of nutrition personnel and inter-departmental working practices have changed at the subnational level. As one informant noted:

Before, ... you could find that a person from the nutrition department stands alone. They used to stand alone without collaborating with these other cadres like WASH, without knowing that in nutrition there are issues of hygiene, so there was a problem. But later on when the collaboration started and became stronger now, you can see the health department can sit as one.'

(Environmental Health Officer, Dodoma Region, September 2018)

Another important innovation by the government of Tanzania concerns the annual Joint Multi-Sectoral Nutrition Review (JMNR). The first country in Africa to institute the exercise (in 2014), the JMNR convenes a wide range of partners from ministries, agencies, development partners, the private sector and research institutions, alongside members of parliament, district and regional nutrition officers and civil society representatives. The multiple day-long reviews examine the cross-sectoral implementation of the NMNAP by using the latest data, to facilitate unprecedented joint capacity building and learning across subnational and national administrations. Moreover, the introduction of a clear national-level Terms of Reference potentially provides an instrument guiding the functioning of district and regional MSCN (Government of Tanzania, 2018a).

3.1.8. Implementation

Efforts across a range of areas discussed above, from improved access to harmonised data, to higher spending, to elevated human resourcing levels, to new institutional mechanisms for cross-sectoral coordination, are likely to jointly contribute to the stronger implementation of nutrition policy in Tanzania.

While strong efforts to foster coherence demonstrate commitment to nutrition efforts, a mixed picture emerges on nutrition spending. Despite clearly established budget lines for nutrition at the national level, specified budgets and guidance issued to local authorities on budgeting for nutrition activities, challenges continue on the disbursement side. Interviewees (Pers. Comm., senior UNICEF official, June 2018) as well as a government report (Government of Tanzania, 2015) noted that funds would arrive late, and local authority disbursements would not match allocated funds, or get used to support non-nutrition activities (Pers. Comm., Senior official, Prime Minister's Office, June 2018). Deliberately or inadvertently, this undermines implementation of nutrition policy. Furthermore, local taxation powers to support development including nutrition are constrained:

'If I plan my activities for nutrition they are required to be funded by own source funds - something which is not possible because Mpwapwa does not have enough money coming from own sources.'

(Pers. Comm., District Nutrition Officer, Mpwapwa District, October 2018)

 $^{^2\,\}mathrm{A}$ further Public Expenditure Review was undertaken in 2017 but was not available for inclusion in this paper.

3.1.9. Credible incentives

Tanzania's potentially outstanding innovation in terms of incentives to senior officials is the performance contract, or 'nutrition compact'. To support the implementation of NMNAP 2016-21, this instrument was being rolled out from late 2017. The Vice President and PO-RALG now hold 26 Regional Commissioners to account for performance against NMNAP goals, using the national nutrition scorecard to monitor progress. Commissioners are required to demonstrate results against spending (the per child allocation of TZS 1,000 on nutrition). The contract strengthens the incentives to deliver policy and demands greater levels of accountability. Preliminary evidence suggests that the contract is being 'passed down' from Regional to District Commissioners, driving data use and sharing, and increased coordination within and between administrative levels (Pers. Comm, senior UNICEF official, June 2018). Notwithstanding important limitations noted above, our analysis across nine indicators of political commitment demonstrated that the Government of Tanzania has undertaken a range of efforts towards building an enabling environment for nutrition. It has exhibited innovative, multi-fold continuous efforts to build capacity, improve coherence and bolster coordination from national to subnational levels. As the enabling environment is strengthening, communities would be expected to benefit. Accordingly, in the next section, we explore if and how local communities and frontline officials experienced changes reflecting a more enabling environment for nutrition, like the analysis of Senegal by Kampman et al. (2017).

3.2. Communities

3.2.1. Knowledge, awareness and capacity to act

Fieldwork found communities reporting that their ideas and perceptions of suitable food, nutrition and child feeding practices had significantly changed over the last 15 years, sometimes with dramatic effects:

'There is a difference between my elder child and my younger child; I just fed him for survival. As for my younger child, I was more aware ... I have put more efforts in ensuring I feed the child well including vegetables.'

(FGD participant, Mpwapwa District, September 2018)

Yet, despite new knowledge and awareness of nutrition, many mothers reported an inability to provide more diverse diets and change behaviour because of limitations of time and income. Local officials also emphasised that many families still did not adhere to best nutritional practices, highlighting the dominance of maize porridge (ugali) – both economical and timesaving – as the 'default' food prepared for children. This aligns with Headey et al.'s (2019) finding that where nutrition improvements are found, these do not stem from improvements to household diets.

3.2.2. Maternal healthcare improvements

Frontline officials and communities consistently reported increased access to new and upgraded health facilities over the past 15 years. The government's 'One Plan' health policy (2008–15) increased access to delivery care in localised primary facilities and upgraded local health centres, to achieve substantial progress in reducing child mortality (Hanson et al., 2017). The integration of HIV/AIDS testing and treatment into ante-natal care (ANC) was positively acknowledged, with local government policies circa 2008 mandating men to accompany their partner to the first ANC visit partially responsible for improved testing rates. Similarly, declines in malaria prevalence were linked to greater use of Insecticide-Treated Nets (ITNs) distributed at ANC clinics. As women have greater awareness of health and nutrition needs, and have gained improved access to better quality facilities, they are more strongly claiming their entitlements. One provider commented:

"[Women] used to come but it was just business as usual, they would come knowing that if a nurse or midwife touches their stomach that's all. But these days they know and they will tell you, 'today is my third dose of malaria [treatment] and I have not been given any'." (Pers. Comm, Regional Reproductive and Child Health Officer, Dodoma, September 2018)

However, mothers presented a mixed picture on the success of ANC appointments as a vehicle for disseminating nutritional advice. For some, such appointments created a transformational effect, as educational efforts stimulated exclusive breastfeeding behaviours:

'Before, we were not aware of much about breastfeeding, and the only thing we knew was the importance of having the connection with the babies'

(FGD participant, Iringa Region, September 2018)

Yet others highlighted that nutritional advice provision was sporadic. Inconsistencies were also reported in levels of service provision at the new facilities: the limited and unpredictable availability of doctors in-community and negative interactions with medical personnel presented barriers to communities' ability to improve their health. This affirmed findings of a recent evaluation, which noted that under the 'One Plan', financial allocations to maternal health decreased, that the health workforce remained seriously understaffed, and that ANC4 coverage (four visits to ANC) declined between 2005 and 2015 (National Evaluation Platform (NEP), 2018).

3.2.3. Water, sanitation and hygiene

While water access in many communities is generally improving, villagers noted that difficulties in reaching taps and maintenance problems persist. Community members also noted improvements in access to water and significant improvements in access to and use of sanitation infrastructures. Improved toilet facilities and hygienic practices over the past 15 years were linked to significant reductions in instances of hygiene-related diseases, such as cholera and diarrhoea. Focus groups also emphasised that attitudes towards the use of toilets among all age groups had transformed due to increased awareness:

'These days people have changed and are really using the toilets.' (FGD participant, Mpwapwa District, September 2018)

3.2.4. Agricultural change and food security

Finally, it is critical to note that in many of our fieldwork locations, rainfed agricultural livelihoods remain highly fragile, shaping communities' essentially uncertain ability to earn income and to achieve better health and nutritional outcomes. Stakeholders underlined the profound effect of climatic unpredictability, with families particularly vulnerable to variations in rainfall as they depend on a single annual harvest:

'During the rainy season the economic status usually becomes fairly good because there will be more harvest, but if the rains are few [families'] economic status will shatter.'

(Councillor, Mpwapwa District, October 2018)

Both local officials and community members reported the need for knowledge transfer on techniques and practices that enable adaptation to climatic volatility, including the growth of more hardy crop varieties such as millet. Numerous stakeholders also raised improved behaviours and greater technical knowledge on food preservation as a key change in the past 15 years, resulting in increased household food security during the dry season.

4. Discussion and conclusions

The global literature explains Tanzania's significant reduction of stunting levels for children under five years of age since 2005 in terms of contributions of determinant factors such as wealth gains, enhanced health interventions, strengthened education of mothers (Masanja et al., 2008; Semali et al., 2015), improved maternal health monitoring, malaria prevention, HIV infection testing and improved water and

sanitation facilities (Headey et al., 2019).

Less attention has been given to analysing the role of government efforts towards supporting an enabling environment for nutrition in Tanzania, unlike recent studies presented for Nepal (Cunningham et al., 2017), Bangladesh (Nisbett et al., 2017), Ethiopia (Warren and Frongillo, 2017), Senegal (Kampman et al., 2017) and Zambia (Harris et al., 2017). Accordingly, this paper interrogated the Government of Tanzania's political commitment to fashioning an enabling environment for nutrition. It investigated an array of policy initiatives and institutional architectures and presented community and frontline officers' perspectives on changing nutrition environments.

Our fieldwork findings resonate with some of the factors outlined in the existing literature on Tanzania. Reflecting on the past 15 years, communities noted having obtained improved access to water and sanitation facilities and better primary health care infrastructure. Moreover, they expressed a greater sense of entitlement, and willingness to demand services from local government providers. Furthermore, they reported having greater knowledge and awareness of the role that their behaviours have in achieving better child nutrition, including regarding exclusive breastfeeding, using improved sanitation facilities – now present in their villages – and observing handwashing hygiene. Yet while greater awareness of the importance of healthy diets was reported, poverty and fragile livelihoods dependent on erratic rain-fed agriculture remain potent structural barriers that hold back communities from acting on such knowledge. This echoes recent findings for Ethiopia (Warren and Frongillo, 2017).

Greater knowledge, awareness and sense of entitlement all suggest that rural communities are potentially in a better position to benefit from quality nutrition-specific and nutrition-sensitive services than they were 15 years ago. Undoubtedly, such services remain to be delivered at scale and sufficient quality; a concern often reported in global studies on nutrition, for instance in Bangladesh (Nisbett et al., 2017) and Zambia (Harris et al., 2017). Our analysis of political commitment however offers cautious reason to assume progressive movement on this front is possible.

We adopted Brinkerhoffs (2000) conceptual framework to assess public policies and initiatives within and across nutrition-specific and nutrition-sensitive sectors, at the national, sub-national and community levels. We find that looking across nine commitment indicators, the Government of Tanzania, with support from the international community, has made clear efforts towards building an enabling environment for addressing undernutrition. We have witnessed top-level leadership and voluntary ownership of the nutrition agenda, including by Parliamentarians, particularly under the Kikwete Presidency (2005-15). This has led to significantly greater attention for nutrition in law and policy, setting out explicit goals and targets for the first time in the National Nutrition Strategy (2011). Tanzania is not unusual in this respect. Top level political and bureaucratic leadership were noted in Ethiopia, Odisha, Senegal and Zambia (Harris et al., 2017; Kampman et al., 2017; Kohli et al., 2017; Warren and Frongillo, 2017). Strong national level policy rhetoric on nutrition was also noted in Bangladesh (Nisbett et al., 2017) and Zambia (Harris et al., 2017), and clear policy visions were expressed also in e.g. Odisha (Kohli et al., 2017) and Zambia (Harris et al., 2017).

Translating national visions and leadership to adequate funding and local action benefiting communities is often a major challenge (Harris et al., 2017; Kampman et al., 2017; Nisbett et al., 2017), and this is no different for Tanzania. Although some evidence points to the ongoing strengthening of appointments of skilled nutritionists at district and regional level, more needs doing to reinforce an atrophied workforce at scale to foster more effective implementation of national nutrition priorities. Funding these posts presents a continued challenge to the government. While new budget tracking and guidelines have potential to enhance transparency in nutrition financing, dependency on donor financing remains very high, and the ability and willingness of local authorities to generate revenue to support nutrition is limited. Tanzania's projected achievement of middle-income status in the coming decade and the associated haemorrhaging of donor support will thus present a litmus test for the government's willingness to invest in nutrition.

Several home-grown innovations provide a cautious case for optimism that enabling environments for nutrition will continue to be strengthened in Tanzania. These advances regard data management and access, horizontal and vertical policy coordination, and novel incentive mechanisms for civil servants to implement nutrition policy.

As in Senegal and Zambia, Tanzania is institutionalising multi-sectoral policy coordination. Annual Joint Multi-Sectoral Nutrition Reviews facilitate unprecedented capacity building and learning within and across subnational and national administrations towards the joint implementation of nutrition policy. However, whereas horizontal coordination mechanisms within subnational government are still rare in for instance in Ethiopia, Senegal and Zambia (Harris et al., 2017; Kampman et al., 2017; Warren and Frongillo, 2017), Tanzania is making clear efforts in this respect. Multisectoral nutrition steering committees review progress and support decisionmakers at national, regional and district levels of administration, offering invited spaces for selected civil society organisations, private sector actors and others to prospectively represent diverse values and interests.

Another instrument, the 'performance contracts' were initiated in 2017, offering novel incentive structures to fuel action within and across Tanzania's newly institutionalised steering mechanisms for nutrition. Anecdotal evidence suggests that the contracts can provide credible cascading incentives for senior officials to deliver on the national nutrition agenda, driving greater vertical coordination, policy coherence and accountability for nutrition investment delivery.

The generation and use of data to support nutrition policymaking has also increased markedly over the past 15 years in Tanzania. This includes efforts harmonising management information systems, drawing on administrative data across nutrition-specific and nutrition-sensitive sectors. Likewise, national nutrition scorecards have been piloted for roll-out at the district level across the country, providing up-to-date insights on local efforts and outcomes. The scorecard holds substantial potential to galvanise communities to hold the government to greater account for nutrition. However, to realise this potential scorecard findings must be routinely made public, offline and online, for all districts.

We conclude that despite the excitement, significant questions remain to be answered about the nature and impact of Tanzania's policy innovations. Empirical research is needed into the actual functioning of the national nutrition scorecards, the performance contracts and steering committees, to assess if they deliver on their promise to contribute to an enabling environment for nutrition. Such enquiry would have to consider whether and how innovations have narrowly strengthened vertical accountability within the administrative system, in the service of a highly centralised state, or if they support a more catalytic social accountability dynamic grounded in free data access that could accelerate nutrition improvements. This is particularly pertinent as the observed openness about policy goals, and the creation of multisectoral fora offering invited spaces for civil society groups is currently happening alongside a worrying trend of growing closure of political space to voice dissent, reducing people's ability to hold the government to account for its role in creating an enabling environment for improving nutrition.

Declaration of competing interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Annex 1

Table 2 Summary of policies addressing nutrition in Tanzania, 1996–2016

Document					Nutrition	Nutrition-r	Nutrition-related actions covered	vered							Included	
Name	Acronym	Type	Ministry	Date	special on- jectives in- cluded	MIYCAN	Micronutrients	IMAM I	Healthy Lifestyles	Water, Hygiene & Sanitation	Agriculture & Food Security	Nutrition Governance	Education	Social Protection	Nutrition indicators	Nutrition budget
National Multisectoral Nutri- tion Action Plan	NMNAP	Plan	Prime Minister's Office	2016	×	2	2	1	2	2		က	2	1	×	×
Food and Nutrition Policy T- anzania Implementation Strateov (Draft)	FNPIS	Strategy	Health	2015/ 16	×	7	7	П	5	7	1	n	7	1	×	
National Five Year Development Plan	NFYDP	Plan	Finance & Planning	2016	×	2	2	1	2	2	1	8	2	1	×	×
National Food and Nutrition Policy (Draft)	NFNP	Policy	Health	2015	×	2	2	1	2	2	1	က	2	1	×	
National Fisheries Policy Health Sector Strategic Plan	NFP HSSP IV	Policy Strategy	Agriculture Health	2015 2015	××	7 7	7		1 5	1 2		с с	1 1	1	××	×
National Education and Training Policy	NETP	Policy	Education, Science,	2014						1		ო	73	1		
Tanzania Third National Mu- lti-Sectoral Strategic Fra- mework for HIV and AI-	NMSF III	Strategy	Prime Minister's Office	2013/ 14		7	1	П	7	1		က	1	1		
DS National Agriculture Policy National HIV/AIDS Policy (- Draft)	NAP NHAP	Policy Policy	Agriculture Prime Minister's	2013 2013	××	0 0	1		2	1	1	ო ო	2 1	1	××	
Implementation Plan for the Biotechnology Policy	IP-BP	Plan	Education, Science,	2011	×						1	2	1		×	
Implementation Plan of the National Research and Development Policy	IP-RDP	Plan	Education, Science, Tech	2011					1	1	1	e	1			
National Biotechnology Poli- cy	NBP	Policy	Education, Science, Tech	2010							1	7	1			
														00)	ontinued on	(continued on next page)

Table 2 (continued)

Document					Nutrition	Nutrition-1	Nutrition-related actions covered	rered							Included	
Name	Acronym	Type	Ministry	Date	-specific ob- jectives in- cluded	MIYCAN	Micronutrients	IMAM	Healthy Lifestyles	Water, Hygiene & Sanitation	Agriculture & Food Security	Nutrition Governance	Education	Social Protection	Nutrition indicators	Nutrition budget
National Research and Development Policy	NRDP	Policy	Education, Science, Tech	2010					1	1	1	က	1			
Livestock Sector Development Strategy	TSDS	Strategy	Agriculture	2010	×	2			1	2		8	1		×	
National Irrigation Policy		Policy	Water	2009						7 -	. 1	2 2				
Agricultural Marketing Policy Sera va Afva (National Health	SYA	Policy Policy	Industry Health	2008	×	7 2	2	1	1 2		_	n n		- L	×	
Policy) National Population Policy I- NPPIS	NPPIS	Strategy	Finance &	2007	×				1			ო	2		×	
mplementation	e e	i ioilea	Planning	9000	>							c	c		>	
ivanonai Popuiation Poncy	A A	Policy	Finance & Planning	2002	<				1			n	7		<	
National Livestock Policy	NLP	Policy	Agriculture	2006	×	2			1	2		3	1		×	
National Water Sector Devel-	NWSDS	Strategy	Water &	2006		1			1	2	1	3				
opment Strategy National Strategy for Gender Develonment	NSGD	Strategy	Irrigation Health	2002	×	7	2	1	4	2	1	က	8	1	×	
National Trade Policy	MTP	Policy	Industry	2003		1	2		3	1	1	3				
National Water Policy	NWP	Policy	Water &	2002		-1			1	2	1	3				
			Irrigation						,		,					
Agricultural Sector Develop- ment Strategy	ASDS	Strategy	Agriculture	2001		7			ī	7	-	n	-			
Sera ya Maendeleo ya Wana- wake na Jinsia (Policy on Women and Developme-	SMWJ	Policy	Health	2000		73	7		4	2	1	ಣ	2	1		
nt) Community Development P- olicy	CDP	Policy	Health	1996	×	7	7		4	2		е	2	1	×	

Source: Modified from Johnson (2016).

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