Creating Momentum for Nutrition-Sensitive Agriculture: Experiences and Lessons from the Australian Aid Program

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ABSTRACT

Global efforts to improve malnutrition have regained considerable momentum. Enhancing cross-sectoral and multilevel coordination for accelerating progress in reaching global nutrition goals has been a key focus. These efforts have recast how the international development community plans for and implements agriculture policy and programming.

While creating and maintaining political momentum for improved nutrition in high-burden countries must be a priority, building the institutional capacity of donor countries to orient investments for enhancing nutrition outcomes is key to this overall vision.

From 2013 to 2015, the Australian aid program made significant progress in aligning its agriculture policy and programming to be more nutrition-sensitive. During this period, multiple influences converged to create the conditions for change. This paper takes a retrospective analysis of the shifts that transpired over this period, and the broader policy environment, which made these possible. The important role played by the Food Systems Innovation (FSI) initiative, a partnership between three Australian research and development players in driving this process, is highlighted.

The lessons shared here are offered in the spirit of supporting other donors and organizations working in international agriculture development to undertake similar organizational-level action towards greater nutrition-sensitivity. In doing so, agriculture development programs will be better aligned to meet Sustainable Development Goal 2, which seeks to improve nutrition and sustainable agriculture globally. The paper concludes by highlighting the key priorities for sustaining momentum and converting this to results at the ground level.

Keywords: Nutrition-sensitive agriculture, enabling environment, agricultural development, aid programming
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INTRODUCTION

Recent global efforts to improve malnutrition have regained considerable momentum. Not since the United Nations Children's Fund (UNICEF)-led push to improve global child survival rates in the 1980s has the international community mobilized so strongly to combat malnutrition. In the past five years, improving maternal and child nutrition outcomes, which has been the focus of the World Health Organization's (WHO) Global Targets 2025 (2018), emerged as a key Sustainable Development Goal (SDG) and was featured in a second Lancet series (2013) to evaluate the evidence for improvements in maternal and child malnutrition. This resurgence in nutrition-focused activity has sought to create momentum for global cross-sectoral action to reduce malnutrition across the research, practice, and policy domains.

There are multiple drivers for this momentum, which reflect significant progress in international development research and practice. Combined with slower-than-expected improvements in reaching maternal and child nutrition development goals, especially in parts of Africa and Asia (Black et al. 2013), there is growing recognition of the role other sectors play in mediating nutrition outcomes. Agriculture, as a critical contributor to sustainable food systems, has emerged as a sector capable of accelerating progress on reducing malnutrition (Popkin 2014; Herforth et al. 2015; Fanzo 2015). A growing call for food systems innovation and an increasing appreciation of brokering processes for driving institutional change has also fuelled momentum for action (Hall 2005; Horton, Prain, and Thiele 2009; World Bank 2012).

Additionally, continued economic and political pressure to demonstrate effectiveness of foreign aid investments in the face of global economic austerity has highlighted the need for multisectoral cooperation to reach development goals. These drivers, in part, have recast how the international development community plans for and implements agriculture policy and programming.

Tackling this global challenge of improving the nutrition-sensitivity of food systems has led to the mobilization of key international organizations and partnerships championing national, regional, and global actions. The Scaling-Up Nutrition (SUN) movement and the Strengthening Partnerships Results and Innovations in Nutrition Globally (SPRING) are some of the initiatives, leading efforts to provide practitioners and researchers with guidance on improving the nutrition-sensitivity of agricultural development initiatives. This has combined with efforts by the United Nation's Food and Agriculture Organization (FAO), the World Food Programme (WFP), and bilateral donors to improve the nutrition-sensitivity of programming more broadly.

While creating and maintaining political momentum for improved nutrition in high-burden countries must be a priority, building the institutional capacity of donor countries to orient investments for enhancing nutrition outcomes is key to this overall vision. Building capacity of this type can facilitate change more broadly by developing cross-sectoral nutrition-sensitive policy and programming mechanisms, which have the potential to affect large-scale change.

From 2013 to 2015, the Australian aid program made significant progress in aligning its agriculture policy and programming to be more nutrition-sensitive. During this period, multiple influences converged to create the conditions for change. This paper takes a retrospective analysis of the shifts that transpired over this period, and the broader policy environment, which made these shifts possible. It highlights the important role played by the Food Systems Innovation (FSI) initiative, a partnership between three

Australian research and development players[1] in driving this process. Our analyses use Gillespie and colleagues' (2013) Enabling Environment Framework (EEF) to shape our discussion of the activities and events, which led to creating momentum for change.

The Enabling Environment Framework presents a convincing case for strategically and deliberately planning for policy-level action and change. The EEF is applied to document the learning that took place in the Australian aid program to make its agriculture portfolio more nutrition-sensitive. The enabling conditions, which created momentum for change, as well as the hurdles faced along the way are highlighted. In doing so, additional considerations for donors undergoing similar change processes are identified. By sharing these lessons, the intent is to better align Australian development programming to meet SDG 2, which seeks to improve nutrition and sustainable agriculture globally. The paper concludes by highlighting key priorities for sustaining momentum and converting this momentum to results at the ground level.

THE ENABLING ENVIRONMENT FRAMEWORK

In June 2013, the second Lancet series on Maternal and Child Nutrition re-evaluated the evidence for continued action on maternal and child malnutrition. The series covered both nutrition-specific and nutrition-sensitive interventions, incorporated the full spectrum of malnutrition to include problems caused by overweight and obesity, and examined the malnutrition problem from a range of actionable levels including policy and governance.

Co-authoring the fourth paper in the series, Gillespie et al. (2013) posited that deliberate action was required to create "enabling environments" for reducing malnutrition. Enabling environments are defined as “political and policy processes that build and sustain momentum for the effective implementation of actions that reduce malnutrition” (Gillespie et al. 2013). The framework presented contains key features, which help to create and maintain political momentum for reducing malnutrition and, over time, translate to results on the ground (see Box 1).

Covering the period 2013–2015, the EEF is applied to retrospectively analyze the experiences and lessons of championing a nutrition-sensitive agriculture (NSA) agenda in the Australian aid program. Building commitment for NSA action requires the development and support of capabilities and systems able to bridge multiple boundaries successfully, including boundaries across the agriculture-nutrition, science-policy, and research-practice domains. The analysis reveals the usefulness of applying the EEF to guide progress on complex development agenda and identifies additional considerations for creating sufficient momentum for action.

The framework was published around the same time that the Australian aid program began thinking more deeply about prioritizing nutrition in the agriculture portfolio, hence, was not available to guide the change process at the time. In retrospect, however, the pillars identified in the framework were key components of a process critical to the program’s achievements. While the pillars were key to its success, the experience revealed additional actions and mechanisms that were helpful to the change process. The domains listed above and the experiences in applying them are described in more detail below.

1 The Food Systems Innovation (FSI) initiative was a partnership comprising the Commonwealth Science and Industrial Research Organization, the Australian Centre for International Agriculture Research, including the Australian International Food Security Centre and the Australian Department of Foreign Affairs and Trade.

EXPERIENCES AND LESSONS IN CREATING AND SUSTAINING MOMENTUM

Prior to 2013, the Australian government's aid investments in agriculture, despite being oriented towards improving food security, had largely been "nutrition-blind", with a few exceptions (DFAT 2015a). As with many other donors, Australia's agriculture programs had previously focused primarily on increasing agricultural productivity or income, neither of which automatically translates to improved nutritional status in individuals, households, or communities (Herforth and Ahmed 2015; McDermott et al. 2013).

While previous efforts were made by some individual agriculture projects to be nutrition-sensitive, the 2015 evaluation of the Australian aid program and child nutrition entitled "A Window of Opportunity" (DFAT 2015a) found that there was scope for leveraging programs to improve nutrition outcomes. The inclusion of clear nutrition objectives in programs, adopting cross-sectoral approaches, and improving the nutrition capacity of staff were identified as opportunities to enhance nutrition outcomes.

The following sections showcase how momentum to better integrate nutrition considerations in agricultural programming was created and sustained in the Australian aid program in a two-year period from 2013 to 2015. While the discussion aligns with the three pillars contained in the EEF (see Box 1), experience has shown that the pillars and interactions between them are not parallel and discrete tracks. Instead, they function as overlapping and interwoven pathways, with each pathway being necessary but insufficient to bring about change. In addition, there are two key ingredients, which helped to create momentum for change: an initial phase of orientation and awareness-building of agriculture-nutrition links, and a dedicated and resourced platform—the FSI initiative—from which to share and test new ideas.

Pillar 1: Knowledge and Evidence

Selecting the right narrative to frame, package, and communicate knowledge and evidence for use by decision makers describes the first pillar in the EEF. As Gillespie et al. (2013) highlight, "undernutrition is a multisectoral challenge that is open to various interpretations (e.g., as a health, economic growth, intergenerational rights, or humanitarian issue). Each context needs its own enabling narrative or framing." From 2013 to 2015, the political and policy environment shifted in the Australian aid program with a change in government. In addition to being mindful of context, it was found that each audience

Box 1. Framework for creating an enabling environment for accelerated undernutrition reduction

Gillespie et al.'s (2013) framework consist of three pillars that shape enabling environments to (1) create and sustain political momentum, and (2) translate momentum into ground-level results in high-burden countries. These pillars are:

- ***Knowledge and evidence.*** The appropriate framing and communication of information and the collection of robust evidence;
- ***Politics and governance.*** Investing in partnerships and systems to improve multisectoral cooperation; and
- ***Capacity and resources.*** The building of multilevel capacity to scale up and maximize investments.

needed its own narrative and framing. The two distinct audiences for this purpose were senior policy decision makers and practitioners (both agricultural researchers and aid practitioners).

Framing for policy decision makers

In 2013, the Australian aid program underwent a period of political change. The then incoming government merged the Australian Agency for International Development (AusAID) into the Department of Foreign Affairs and Trade (DFAT), and the aid budget was significantly reduced. In June 2014, a new aid strategy was released with "agriculture, fisheries and water" as one of six priority areas (DFAT 2014). This was a shift from the previous government's strategy, which placed an emphasis on food security rather than on agriculture. Importantly, in the new aid paradigm, agriculture and fisheries were acknowledged as "key growth sectors and critical to strengthening global food security and improving nutrition." This new policy direction combined with a reduced aid budget meant that many ideas and interests were jostling for primacy within the DFAT and other aid stakeholders. It was a time of political uncertainty. In the previous government, success was made in establishing Australia's place in nutrition's "global governance" through membership in the SUN Movement and endorsement of the Global Nutrition for Growth (N4G) Compact in May 2013. With a new government in place in September 2013, there was the need to once again argue the case for aid investments in nutrition.

While investments in nutrition-specific actions have demonstrated effectiveness (see 2013 Lancet series), arguing the case for investing in nutrition-sensitive actions presents many challenges. The multisectoral nature of nutrition presents complexity in the implementation of effective programs (Gillespie et al. 2013). For agriculture programs, there can be long results chains from agriculture to improved nutrition status, long time lags to realizing the economic benefits of NSA, and the need to transform complex food systems with multiple business and trade interests.

With funding from the FSI partnership (Box 2), the Commonwealth Science and Industrial Research Organization (CSIRO) compiled

Box 2. Partners in the Food Systems Innovation (FSI) initiative and their respective roles

From 2012 to 2015, the FSI was a partnership between three Australian Commonwealth Government agencies with significant roles in the Australian aid program's agriculture portfolio:

- the Australian Department of Foreign Affairs and Trade (DFAT, including the former AusAID), which is responsible for setting the Australia government's aid policy and managing its aid investments;
- the Commonwealth Scientific and Industrial Research Organisation (CSIRO), which carries out scientific research, and facilitates the uptake of research; and
- the Australian Centre for International Agriculture Research (ACIAR), including the Australian International Food Security Centre, which invests in applied research and capacity building in agriculture and food systems in developing countries.

Serving as a knowledge hub for reflection, analysis, sharing and learning, the initiative brokered links among stakeholders engaged in the aid program, including policymakers, practitioners, scientists, and aid managers across government, NGOs, universities, and contractors. The FSI collaborated with Australian aid projects and programs to share lessons and connect with up-to-date international experience and good practice.

recent and seminal work about NSA into accessible and concise dossiers–short syntheses of key themes to emerge from the international literature at the time. Using these dossiers, a case was argued that despite the dearth of evidence that agriculture programs contribute to better nutrition, agriculture programs must not harm nutrition outcomes, and where possible, should improve the food environment, and ultimately, diets.

While the change in government meant needing to argue the case for nutrition anew, the timing provided an opportunity to inform the shaping of new policy. A new aid paradigm necessitated the development of new strategies and guidance notes to articulate the priorities for aid funding in the agriculture sector. Seizing this opportunity, the FSI initiative directed efforts at ensuring that the Strategy for Australia's Aid Investments in Agriculture, Fisheries and Water (2015) incorporated nutrition considerations. The Strategy now recognizes the importance of the agriculture sector in achieving food and nutrition security and includes "enhancing food, nutrition and water security" as one key strategy among three core strategic objectives.

Within the agriculture portfolio, two further policy discussions were underway: women's economic empowerment and the growing double burden challenge of malnutrition in the Pacific region.[2] Women's empowerment has long been regarded as a cornerstone of agriculture-nutrition pathways.[3] The Australian aid program's primary focus is the Asia Pacific region. In this region, partner and recipient countries struggle with undernutrition in children alongside rapidly increasing adult overweight and obesity prevalence, leading to a double burden of malnutrition. Papua New Guinea, as the largest recipient of Australian aid (DFAT 2015d), has some of the highest child stunting rates at 50 percent, while overweight and obesity has reached 48 percent. Other Australian aid partner countries with sizable agriculture programs, such as Timor-Leste, Cambodia, Indonesia, Solomon Islands, and Pakistan, experience ongoing or worsening malnutrition challenges (Table 1). Given these nutrition challenges, there was a clear rationale for the Australian aid program's agriculture portfolio, with a budget estimated at AUD 243.4 million in 2017–18[4] (DFAT 2015c), to adopt a nutrition-sensitive approach.

Further success was achieved when an operational guidance note on NSA was developed through the FSI initiative. Co-developed by the DFAT and the CSIRO, this guidance note (August 2015) sought to support the DFAT activity managers to integrate nutrition considerations in agricultural programming. While the strategy outlines the Australian Government's broader aid policy relating to agriculture, the Guidance Note provided staff with tools for the practical implementation of NSA. Together, they frame the argument for adopting a nutrition-sensitive approach and communicate existing knowledge about good practice.

Framing for practitioners

An additional audience for the framing of knowledge and evidence are practitioners who design, implement, and evaluate agriculture programmes. Practitioners in this context include agricultural and food security researchers, and aid practitioners. Unlike policy decision makers who require arguments for

2 See for example, Joint Standing Committee on Foreign Affairs, Defence and Trade's (2016) "Food for Thought: Improving Health and Nutrition in the Indo-Pacific Region."

3 See for example, USAID's (2017) "Gender considerations for achieving nutrition outcomes through agriculture: Technical Guidance Brief."

4 1 AUD = USD 0.74 as of 25 July 2018 (https://www.bloomberg.com/quote/AUDUSD:CUR)

Table 1. Malnutrition in the Asia Pacific*

Countries	Stunting of children under the age of five (5) and year of data collection	Adult Overweight and Obesity (2014)	
		Obese (BMI>30)	Overweight (BMI>25)
Timor-Leste	50 (2013)**	2	15
Pakistan	45 (2012)	5	23
Cambodia	32 (2014)	3	18
Indonesia	36 (2013)	6	25
Papua New Guinea	50 (2010)	28	61
Solomon Islands***	33 (2007)	32	68
Fiji	8 (2004)	36	71

Notes:

*Unless otherwise specified, the data are drawn from the Global Nutrition Report 2015 Country Profiles at http://www.globalnutritionreport.org/the-data/nutrition-country-profiles/

**Data for stunting in Timor-Leste is drawn from the Timor-Leste Food and Nutrition Survey, Timor-Leste Ministry of Health, 2013.

***Data for the Solomon Islands are drawn from the 2014 Global Nutrition Report's Country Profile at http://www.globalnutritionreport.org/the-data/nutrition-country-profiles/

investing in NSA, practitioners typically seek a consensus on NSA conceptual frameworks, good practice examples, and evidence that such frameworks and practices work.

At the time of the FSI initiative's inception, pathways between agriculture and nutrition were only beginning to emerge. A rapid national search for NSA capability revealed a dearth of available expertise. Indeed, there was not yet an agreed definition of NSA in the international community. In time, the Lancet papers (2013), the Food and Agriculture Organization's (FAO) State of Food and Agriculture (2013), and Prioritizing Nutrition in Agriculture and Rural Development published by the World Bank (2012) provided FSI partners with a loose working definition to begin exploring the concept at organizational and partnership levels.

The FSI initiative adopted an initial definition of NSA as a "cross-sectoral approach for addressing the underlying determinants of malnutrition through agricultural interventions." This initial framing provided a general starting point from which to raise awareness of the issue. The definition evolved over time as international consensus on the topic grew, and as FSI partners developed a clearer sense of how NSA aligned with their own organizational mandates and visions. It took many months to arrive at a mutually agreeable definition of NSA, which was finally accepted as "agriculture with a nutrition lens." Considerably more effort and time was needed, however, before sufficient buy-in was created across the FSI partnership and genuine momentum for action on NSA was generated.

The need to step back and undertake an initial process of consensus-building and sense-making became an essential first step in creating legitimacy for pursuing an NSA agenda. We refer to this preliminary process as "arriving at the table," an unexpected and additional process needed to create momentum

for action and change. In diplomatic parlance, "a seat at the table" is often a strategic goal for decision makers seeking influence and position. In the case of the FSI, there was a need to initially convince stakeholders that the NSA table is important, and that a seat at this table is worth pursuing. These preliminary steps were necessary in order to muster support going forward, and to make sense of the challenges that lie ahead. Only then is it possible to identify champions willing to adopt the vision.

To encourage participation in this learning process, the FSI convened a series of cross-organizational learning events, which included day-long workshops designed to share information and experiences on nutrition-related work. It also arranged informal individual and small group conversations with partners and colleagues to raise awareness of NSA and to spark interest in a shared vision. It was also during this orientation and sense-making phase that an initial platform for relationship and trust-building across and within partnering organizations was created (Figure 1). These early phases generated ideas for creating knowledge products and learning activities to better meet partners' and stakeholders' needs for raising awareness and building capacity. To have created and disseminated knowledge products without initially engaging more deeply with stakeholders about their particular information needs would have been ineffective.

As the leading science organization in the partnership, the CSIRO led the creation of knowledge products, primarily using desktop research to synthesize seminal works available at the time. These products were varied and included discussion briefs, dossiers, and practice notes.[5] They were tailored in consultation with decision makers and written concisely, enabling them to bridge sectoral and organizational boundaries. The FSI team eventually labeled these products as "boundary objects" in reference to their "bridging" qualities.

These boundary objects aimed to communicate complex concepts simply, were designed for broad use by a range of audiences, and flexible enough to be used for a variety of communication, briefing, and planning purposes. Their publication created exposure to the work underway and generated requests from partners for input to strategic and programming development. In time, these outputs played a key role in policy-relevant discussions and eventually, combined with favorable policy shifts, were pivotal in the shaping of strategic and operational advice.[6] Box 3 summarizes the lessons generated from experience in framing NSA knowledge and evidence for diverse audiences.

Pillar 2: Politics and Governance

The second pillar in the EEF refers to the political economy of stakeholders and the importance of understanding their ideas and interests. The challenge with this pillar is to engage various stakeholders and agencies, each with different and competing agendas, to work together to reduce undernutrition (Gillespie et al. 2013).

The stakeholders working on the Australian aid program's agriculture portfolio included: Australian government agencies (i.e., DFAT, CSIRO, Australian Centre for International Agriculture Research (ACIAR), and the Department of Agriculture), partner (aid recipient) governments, and aid implementers (NGOs, contractors, and universities). As the

5 Discussion briefs consisted of 8–10 pages outlining the case for considering nutrition in agricultural programming, while dossiers examined key themes in NSA planning and implementing.

6 The dossiers helped to inform both the development of Operational Guidance Note on Nutritionally-Sensitive Agriculture and the Strategy for Australia's aid investments in agriculture, fisheries, and water.

Figure 1. The chronology of NSA action in the Australian aid program

Phase	Actions and Milestones by Quarter
Inception Can we really do this?	May 2013: The Australian Government joined the Scaling-Up Nutrition (SUN) Movement and endorsed the Nutrition for Growth (N4G) Compact. June 2013: NSA was selected as a work theme in the Food Systems Innovation (FSI) initiative.
Orientation Where do we sit in the bigger picture? Who is doing what in Australia and globally?	July–August 2013: A series of cross-organizational learning events including day-long workshops designed to share information and experiences on nutrition-related work were conducted. These were held in Brisbane and Canberra. September 2013: A change in government and the merger of AusAID into DFAT.
Sense-making How does NSA fit with our own experiences and priorities?	May 2014: Discussion Brief: Enhancing the Nutritional Impact of Investments for Improved Development Outcomes October 2014: Dossier 1: Improving Nutrition through Agricultural Linkages was released.
Window of influence Period of testing, brokering, and operationalizing knowledge Building external partnerships	February 2015: Australia's agriculture strategy, The Strategy for Australia's aid investments in agriculture, fisheries and water (February 2015), includes 'enhancing food, nutrition and water security' as the third of three strategic objectives. March 2015: Design mission for DFAT's first purpose-built NSA project in Timor-Leste, TOMAK – Farming for Prosperity. April 2015: An evaluation of the Australian aid program and child nutrition, entitled "A Window of Opportunity," found that there was scope for leveraging programs to improve nutrition outcomes.
Reflecting and learning Responding to specific needs and requests, linking with international expertise	July 2015: Dossier 2: Food systems and the double burden of malnutrition was released. August 2015: The DFAT's Operational Guidance Note on Nutrition-Sensitive Agriculture was co-developed by DFAT and CSIRO. September 2015: The Joint Standing Committee on Foreign Affairs, Defense and Trade (JSCFADT) was tasked to report on the role of development partnerships in agriculture and agribusiness in promoting prosperity, reducing poverty, and enhancing stability in the Indo-Pacific region, with a strong emphasis on nutrition. November 2015: NSA master-class with an international expert for practitioners was held.
Moving forward Where are we now? Where to next?	

TIMELINE

Box 3. Lessons for framing, generating and communicating NSA knowledge and evidence

1. Frame arguments for investment in nutrition to align with priorities of policy decision makers.
2. Information for use by decision makers must be concise, accessible and jargon-free.
3. Producing, synthesizing and disseminating knowledge and evidence is not sufficient to create momentum and action. Building legitimacy for NSA action among policy makers and practitioners was a pivotal step in building buy-in for change. Orientation to the problem ('arriving at the table') was an unexpected initial task.
4. Broad-level engagement and collaboration in the development of tools, such as the Operational Guidance Note, was essential to develop consensus and generate learning.
5. Linking the NSA agenda to ongoing relevant policy discussions in the Pacific double burden challenge and women's economic empowerment helped to create momentum.

department responsible for setting aid policy, the DFAT leads the development of aid policy including the development of the strategy and related operational guidance notes in consultation with stakeholders.

In reality, the charge to make the agriculture program more nutrition-sensitive was led by the FSI partnership, highlighting the importance of dedicating specific resources to drive change. The FSI partnership (see Box 2) had identified NSA as one of three priority areas for policy and program innovation. Within the NSA work theme, the CSIRO led work on what Gillespie et al. (2013) refer to as knowledge, evidence, and capacity, while the DFAT influenced policy, governance, and resourcing. These reflected each agency's strengths and roles within the aid program. The FSI partnership meant that human and financial resources were invested to enhance nutrition outcomes through research and capacity building (see Box 4).

In early 2015, an opportunity for political will and policy frameworks to be translated into ground-level action was presented. The DFAT's Timor-Leste country program was designing a AUD 25 million agriculture program TOMAK-Farming for Prosperity (TOMAK 2017). This was to be DFAT's first purpose-built NSA program containing explicit nutrition objectives and FSI was perfectly placed to harness nutrition champions and experts to support the program's design. TOMAK focuses on promoting good nutrition by increasing dietary diversity, improving agricultural practices to ensure a year-round supply of locally-available nutritious food, and empowering women. The TOMAK design was critical in building confidence to successfully design a nutrition-sensitive program under the agricultural portfolio. The TOMAK design also created an opportunity to "test-drive" the new Operational Guidance Note on NSA prior to its finalization in August 2015.

This experience illustrates that to create momentum for NSA, action is required at multiple boundaries. NSA necessarily spans the science-policy interface, the private sector-research interface, the agriculture-nutrition-health sectoral interface, and the individual-partnership interface. The FSI used multiple pathways to navigate these boundaries including brokering—the deliberate process of creating, linking, and inspiring the collaboration of people and ideas. Brokering had multiple uses and purposes for creating momentum. It was used to identify, and in some instances, create a common language to discuss the most important issues. Brokering brought people together to both frame issues of concern, and to drive change.

Box 4. Lessons for political economy of stakeholders, ideas and interests

1. In this relatively new area of work, a partnership capable of generating policy-relevant knowledge and evidence is necessary to build momentum in NSA. The FSI partnership created a platform for this work to occur.
2. The creation of NSA-related knowledge products was insufficient in themselves to bring about change across the Australian aid program's agricultural portfolio. To drive this change, political will was required and articulated through strategic policy documents.
3. Adopting a 'learning by doing' approach by grasping opportunities to test drive ideas, through for example, program design, builds capacity and confidence in applying NSA-approaches.

Pillar 3: Capacity and Resources

Leaders and champions in nutrition who are capable of building strong links across a range of sectors, organizations, and levels are key to creating and sustaining momentum on nutrition action (Gillespie et al. 2013). These include high-level advocates within policymaking organizations capable of agitating for change. Equally valuable are champions who are able to operate across a range of boundaries, which effectively build bridges across research, policy, and disciplinary divides. Less often recognized are the myriad of non-scientific skills and capabilities needed to operate across boundaries. These include science communication, knowledge brokering, and facilitation skills.

The collaborative partnership the FSI initiative was able to develop across the aid program and its implementing partners helped to identify and, in some cases, develop leaders in nutrition. The partnership enabled the development of operational guidance advice. Lunchtime seminars were organized to communicate the key themes contained in the note and, in time, the note was disseminated across the Australian aid program and published on the DFAT website.

To create legitimacy and trust in the quality of the information shared, an international expert on NSA was engaged to visit Australia and deliver a two-day master class in NSA. Attended by a range of interested professionals, including representatives from civil society and universities, the event was an opportunity to build collective technical knowledge and boost confidence in direction and approach. The opportunity also linked participants to current international thinking.

Through the development of capabilities and the creation of useful tools for informing both policy positions and research strategies, a core group of individuals was able to offer NSA guidance in priority countries in the region, which are grappling with significant nutrition problems. Timor-Leste's agricultural livelihoods program TOMAK commenced in 2016 and integrated NSA principles in very early planning stages, an approach considered essential for enhancing nutrition impact.

The resourcing required to deliver learning events, develop practical tools, and build networks was significant. The FSI initiative created both the space to engage in early discussions about NSA in a neutral forum and provided the financial and capability resources to do so. Without dedicated resourcing, it is very unlikely that enough momentum could be generated to enable this level of impact.

Finally, flexibility in how dedicated resources are used enabled the initiative to adapt workplans as necessary. Without sufficient autonomy to explore a range of approaches and techniques, innovation is less likely to be realized. Our lessons for building multi-level capacity are summarized in Box 5.

Box 5. Lessons for building multi-level capacity to scale up and maximize investments

1. Dedicated resources that bridge networks and translate knowledge are essential.
2. Building NSA capacity requires sufficient and dedicated resourcing.
3. A forum that is either neutral or familiar to all stakeholders provides necessary political distance and autonomy to test ideas and raise questions.
4. Flexibility and adaptive management helps to foster the conditions for change.

LOOKING AHEAD: PRIORITIES TO ACCELERATE PROGRESS

Substantial progress has been made in the Australian aid program to bring the importance of nutrition-sensitive programming to the attention of decision makers. While NSA is now on the policy agenda, there is much work to be done before results on the ground are realized. This final section outlines the efforts needed to sustain momentum and to convert this into results. Recent release of the FAO's toolkit on NSA and food systems (FAO 2018) describes the varied and multiple entry points available to improve the nutrition-sensitivity of investments on the ground including guidance on indicators and integrated program development. There is much work to be done to achieve impact at scale. Highlighted below are several pathways that are considered essential to strengthening the policy and research environment to enable progress.

Pillar 1: Knowledge and Evidence

There is growing consensus among international donors and research organizations about how progress in NSA should be measured. The recently released FAO Indicator Compendium (FAO 2016) is one example of this emerging evidence. The extent to which this evidence is incorporated by decision makers into policy and planning decisions requires further investigation. Similarly, the extent to which emerging evidence is integrated into agricultural research programming by scientists who design and implement interventions requires more careful planning.

For policymakers, there is a risk that decision makers fall into what Gillespie et al. (2013) refer to as an "evidence vacuum", where decisions are made in the absence of contextually-appropriate data. This risk is even more acute for NSA given that methodological quality in studies of effectiveness has been previously questioned. While poor research design and evaluation does not necessarily indicate poor program performance, decision makers must find ways to assimilate appropriate and high-quality evidence in planning decisions.

From experience, the FSI partnership presented a unique opportunity for researchers and policymakers to interact with each other to improve knowledge and practice across both domains. The FSI demonstrated the role that researchers, research communicators, and research intermediaries (e.g., brokers) can play in making evidence more accessible to policy decision makers. However, these achievements were not without considerable effort and required resourcing.

For research impact to be realized, researchers and their organizations must better orient research goals to achieve development outcomes. This requires research organizations to create suitable incentive and support systems that enable and reward researchers for their efforts. Looking beyond the accumulation of traditional scientific outputs to creating value in using approaches, tools, and processes, which are more aligned to generating development and policy impact is a broader challenge to address.

Further investment in implementation research, or the understanding of process-related and contextual factors, which affect impact, drive uptake, or enable scale-up is also an area for further exploration in the research community.

For donors, the challenge is to continue engaging with others globally to learn from and contribute to international discussion on best practice in NSA. There are a range of opportunities to draw from related to knowledge and evidence across related portfolios, including: gender equality and women's empowerment, market systems, private-public partnerships, and impact pathways.

Finding pathways to achieve impact at scale is a challenge for all development programs. Knowledge and practice platforms such as the Global Donor Platform for Rural Development (GDPRD) have been particularly useful for sharing learning across the donor community and will continue to play a part in disseminating knowledge and evidence in the future. Communities of practice (CoPs) among the research community may also provide a resource for improving the quality of scientific research although the sustainability and effectiveness of these platforms in research environments has been mixed (Kerno 2008).[7]

Pillar 2: Politics and Governance

While gains were made with key stakeholders in the Australian aid program to get NSA "on the agenda", the challenge now is to translate aid policies into high-level and project-level action, and then to ground-level results in partner (aid recipient) countries.

High-level action necessitates convening and influencing many existing stakeholders of the Australian aid program, such as Australian government agencies, Ministries of Agriculture in partner countries, agricultural research institutes, and program implementers. It also means reaching out to new stakeholders operating in the nutrition space to ensure effective programs. Often, these stakeholders (e.g., private sector actors, health actors, education actors, and water supply and sanitation actors) are new and unfamiliar to agriculture programmers. In countries where SUN or other nutrition alliances are active, these already provide platforms in which nutrition information is shared and multisectoral actions are coordinated.

In May 2016, the Australian Joint Standing Committee on Foreign Affairs, Defense and Trade (2016) tabled its report, "Food for Thought: Improving Health and Nutrition in the Indo-Pacific Region." The recommendations of this report —which included strengthening whole-of-government coordination on nutrition and playing a leadership role in coordinating a donor response to the double-burden in the Pacific—provided further impetus for efforts already underway.

For the Australian aid program, quick wins can include working in the Asia Pacific region to: (1) strengthen engagement with global governance mechanisms (e.g., SUN and REACH) to improve nutrition; (2) strengthen accounting mechanisms for the quality and effectiveness of the agriculture portfolio in improving nutrition; (3) scale up innovation across Australian government agencies to improve nutrition outcomes through agricultural development and agriculture research programs; (4) support partner governments to build healthy food environments through improving policy frameworks and regulation; (5) incentivize and engage with private sector actors (e.g., through a dedicated funding envelop) to improve food environments and/or develop innovative solutions to nutrition challenges. An example is the DFAT Innovation Xchange's LAUNCH Food. It provides funding to support or scale

7 https://www.donorplatform.org/

innovations to improve health and nutrition outcomes in partnership with LAUNCH and US Global Development Lab.

Project-level actions that donors and practitioners can take to improve nutrition-sensitivity of agriculture projects have been exhaustively documented elsewhere (e.g., SPRING and FAO Toolboxes). The DFAT Operational Guidance Note in NSA (2015b) goes some distance in providing guidance to improving the nutrition-sensitivity of agriculture projects. Given the increasing urgency of the nutrition challenge in the DFAT's partner countries, existing agricultural projects can be updated at review or re-design stages to increase their nutrition-sensitivity.

Pillar 3: Capacity and Resources

Improving capacity in NSA across multiple levels including individual, organizational, and system is a key challenge going forward. This is particularly challenging for NSA given the multiple interfaces and systems implicated in research-for-development contexts. NSA crosses disciplinary, sectoral, and domain boundaries and bridging these requires dedicated resourcing and skills development. Harnessing the role of intermediaries such as knowledge and partnership brokers and cross-sectoral facilitators capable of connecting people and information will be important; as will strengthening the capacities of current disciplinary-based expertise to think more broadly during planning.

The FSI partnership developed individual and organizational capacities through the delivery of learning events where information and experience could be shared and tested. These efforts were useful in the short-term, leading to the increased awareness of the nutrition issues and over time, the development of nutrition-sensitive aid policy. These events also triggered changes within the CSIRO through the emergence of NSA considerations in high-level scientific planning discussions.

The FSI initiative ended in late 2015. While the Australian aid program's agriculture strategy now includes nutrition-sensitive goals, a number of the NSA champions involved in creating initial momentum have moved on to work in other projects and in other roles. To sustain the momentum created, NSA technical expertise is required to support practitioners, e.g., in project design or engagement with partner governments.

There is much room for improvement in research practice especially in the design and evaluation of agricultural programs claiming impact on nutrition outcomes. Better articulation of impact pathways, including documenting contextual factors that affect implementation, is a key step for converting momentum into results (Gillespie et al. 2013). For researchers, articulating theories of change and testing the assumptions that underlie the process are key areas for capability development.

Contemporary international agriculture research-for-development (AR4D) programs are required to design and implement programs, which take account of complexity on a number of fronts. This includes engaging diverse stakeholders as partners in research, integrating multidisciplinary perspectives, and demonstrating sustainable impact (Byerlee, de Janvry, and Sadoulet 2009; Fanzo 2015). For research organizations striving to implement effective cross-disciplinary programs, building organizational, and systems capacity will need strengthening. Incentives to reward non-traditional roles critical to science-policy collaboration including facilitation, brokering, and writing for policy need to be explored. The assessment of impact beyond scientific publications is also an area requiring development.

Converting technical advice into action for NSA requires leadership and commitment

in all stages of project planning. Ensuring that nutrition-related objectives are integrated early into programs and drawn from available (and legitimate) evidence is a good start. Knowledge relating to general nutrition principles or nutrition pathways is not yet widespread, even in developed settings. The notion that "nutrition outcomes happen"—without the clearly articulated objectives and set indicators —continues to be commonplace.

CONCLUSION

While the EEF outlines key pillars pivotal to creating and sustaining political momentum, lessons to inform how the pillars interact to enable (or hamper) progress to be made are yet to emerge. The experience shared here in creating momentum for change demonstrates that the pillars do not function in isolation from one another, nor are they sufficient in and of themselves to trigger change. This demonstrates that the pillars interact dynamically and contain overlapping drivers and outcomes.

In addition, an initial process of creating legitimacy to pursue an NSA agenda is an unexpected, yet necessary process before acceptance of any knowledge or evidence is possible. A concerted orientation and sense-making phase helped to muster support for progressing an NSA agenda and generated the legitimacy required. Given that for Australia, NSA at the time was an emerging topic, traction was needed to build momentum for action. A period of raising awareness of agriculture-nutrition links and building a shared understanding of the problem (and its impact pathways) was a critical first step for the aid program.

Finally, the capacity and financial resourcing provided by the FSI partnership were necessary pre-conditions to driving institutional change and improving the nutrition-sensitivity of the aid policy. A dedicated platform (and partnership) comprising of key players who were resourced to affect change was the central mechanism by which momentum was created. This platform created the space for partners to connect around the topic of NSA, sharing information, and testing new ideas.

The EEF is a useful framework to guide a change process. The three pillars provide a useful tool to guide thinking around the criteria essential to trigger institutional change. While the processes that enable change will differ among countries and policy environments, this suggests that there may be additional mechanisms and actions required to create momentum. A readiness to learn and adapt accordingly enabled the Australian aid program to orient agricultural investments to improve nutrition outcomes. While the Australian aid program has been successful thus far in creating momentum, further work will be required to convert momentum into results.

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