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TRACKING AID FOR FOOD SECURITY: METHODOLOGY AND PILOT CASE STUDY IN MALAWI

EXECUTIVE SUMMARY

Little is known about how donors are addressing the three core aspects of food security – *access*, *availability*, and *utilization* – and whether food security programs are primarily geared towards short-term assistance or long-term development objectives. This brief presents a new methodology for tracking aid for food security, designed to capture robust information on food security activities at the aid project level. To pilot this method, researchers coded and mapped all available official development assistance projects, active between 1996 and 2010, from five major donors in Malawi. This study found that approximately 29 percent of development activities across these donors were relevant to food security, a figure much higher than the average percentage of development assistance spent on food security across developing countries. However, the individual approaches of donors vary considerably between *availability*, *access*, and *utilization*. Combined with mapping of project locations, this new food security coding represents a key step in understanding how donors are approaching food insecurity in developing countries. This tracking effort can lead to better targeting of food security programs, as well as increased donor coordination.

AUTHORS

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WHY TRACK AID FOR FOOD SECURITY?

The 2015 target date for achieving the Millennium Development Goals (MDGs) is now less than two years away and the world is far from achieving the goal to "halve, between 1990 and 2015, the proportion of people who suffer from hunger."[1] Today, nearly one billion men, women, and children around the world suffer from food insecurity. Of these, 230 million live in Sub-Saharan Africa, a region that also suffers from the highest rates of undernourishment as a percentage of total population.[2]

Many factors contribute to food insecurity in Sub-Saharan Africa, including many African governments' underinvestment in agriculture (e.g. not meeting the 2003 Maputo Declaration on Agriculture and Food Security commitments); the tendency of the international community to react with emergency food relief in the context of humanitarian crises rather than focusing on the enhancement of long-term food security; and the vulnerability of smallholder farmers to political, economic, and environmental shocks. African nations' agricultural sectors also suffer from unequal trade policies, high levels of rain dependency, low use of inputs such as fertilizer and improved seeds, lack of proper storage facilities, and low access to credit.[3]

Official development assistance (ODA) to Africa has gone through several iterations over the past four decades. On the tail of the Green Revolution in Asia during the 1960s and 1970s, Africa received heavy investment in food production as donors attempted to replicate strategies that had proven successful on another continent.[4] Donors also gave large quantities of in-kind food aid as a strategy to increase food supplies within a receiving country and reduce grain surpluses in their own countries.[5] Later, as global food prices waned and donors focused on other development objectives such as education and health, ODA for food security began to drop.[6]

Food security never completely left the donor agenda, but it was not until the dramatic price hikes of 2007 and 2008, the shocking spike in absolute poverty rates, and subsequent protests across the developing

world that the international community recommitted itself to the goal of reducing food insecurity in developing nations. Donors at the G8 Summit in l'Aquila, Italy in 2009 pledged USD 20 billion in new and additional ODA financing for food security over a three-year period.[7] Then, at the G8 Summit at Camp David in 2012, donors launched the New Alliance for Food Security and Nutrition, seeking to promote private sector investment and innovation.[8]

Despite a growing consensus that food price volatility and food insecurity represent some of the biggest challenges to sustaining development progress, the Organization for Economic Co-operation and Development (OECD) estimates that the total amount of aid given for food security around the world was USD 11.7 billion in 2010 — only 7 percent of total ODA.[9]

Recognizing that the key policy challenge is moving aid practices from food aid to food security programs, this methodology seeks to identify whether aid projects are addressing short-term or long-term needs.

Today, most donors and international organizations vary slightly in their wording for the definition of food security. Most, however, find their origins in the 1996 World Food Summit definition that "food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

Drawing from an extensive review of the burgeoning literature on food security and development, this research brief describes a new methodology for coding donor projects at the activity level to determine where and how aid donors are addressing three key components of food security: access, availability, and utilization. Recognizing that the key policy challenge is moving aid practices from food aid to food security programs, the methodology seeks to identify whether aid projects are addressing short-term or long-term needs.

Examining projects at the activity level begins to answer important questions about aid effectiveness and donor coordination. Specifically: 1) How are international donors addressing the three aspects of food security (access, availability, and utilization)? 2) Is one aspect receiving more attention than others? 3) What percentages of activities within donor projects are addressing the three components of food security? and 4) Are donors successfully integrating short-term food aid/relief and long-term development projects?

Researchers at the Climate Change and African Political Stability (CCAPS) program and Innovations for Peace and Development (IPD) at the University of Texas at Austin developed this pilot methodology during the spring of 2013.[10] The team tested the methodology using project documents from five major ODA donors in Malawi.

Building on the previous geomapping and climate aid tracking work of CCAPS,[11] this research methodology uses activity-coded and geo-coded ODA projects to examine donor-funded food security projects throughout Malawi. Using GIS technology, the team created spatial data to reveal where these select donors are active in pursuing food security programs in Malawi and to understand whether these programs are well-aligned with areas of need.

OVERVIEW OF THE FOOD SECURITY CODING METHODOLOGY

The coding process involves several steps. First, coders read through donor project documents – such as project appraisal documents and implementation documents – to identify all activities within the project (according to a list of over 700 possible activities developed by AidData).[12] Second, coders geocode the projects to the highest level of geographical precision possible, such as district or village level, given information available in the project documents. Coders then assign the activities to a category of food security according to the specific methodology that the CCAPS/IPD team developed.

At each step, activities are coded by two research assistants (whose inter-coder reliability rate was higher than 93 percent) and arbitrated by a senior coder to resolve any discrepancies. The food security coding consists of classifying individual activities within a project document

as either "Food Security," "Not Food Security," or "Food Aid/Relief." If an activity falls under either of the last two categories, the activity is recorded under the category and the process stops. If, however, the activity is classified as "Food Security," coders categorize the activity into one of the three aspects of food security: access, availability, or utilization. Furthermore, each activity that falls into one of the three categories of food security must then be classified as either short-term or long-term development. The coding process is illustrated in Figure 1. Activities are coded along this process according to CCAPS/IPD definitions as shown in Figure 2.

METHODOLOGY: STEP-BY-STEP GUIDE

Step 1: Activity Coding

The CCAPS/IPD food security methodology builds upon the CCAPS methodology for tracking aid for climate change adaptation.[13] One of the key lessons from the CCAPS methodology is the importance of coding at the activity level rather than project level. Coding each activity, rather than the project as a whole, ensures greater accuracy and detail in the results. For example, one development project may have multiple activities that broach different areas such as prevention of sexually transmitted diseases and basic nutrition. Coding at the activity level allows researchers to capture donor aid for food security even when it is not the main or only component of a development project. This decreases estimation errors and also provides a far richer source of information on aid activities relevant to food security to both donors and country government partners.

Step 2: Pre-Assign Scores

After projects are coded at the activity level, each activity is pre-assigned to one of the categories of food security: "Food Aid/Relief," "Food Security," or "Not Food Security." Pre-assigned codes were determined based on an extensive literature review of food security in Sub-Saharan Africa. Pre-assigning codes anchors activities to their standard classification *most of the time*, so coders manually check exceptions in Step 3.

Step 3: Manual Coding

After all the activities in a project document have been assigned a pre-set food security score, a coder manually verifies the pre-set code according to the details and context of the project document. Coders can then change the score according to evidence in the project document. This step allows coders to capture the maximum activities for food security. For example, the activity, "all banking and financial services education and training" is pre-set as "Not Food Security." However, a coder would change this pre-set

Figure 1. Food Security Coding Methodology

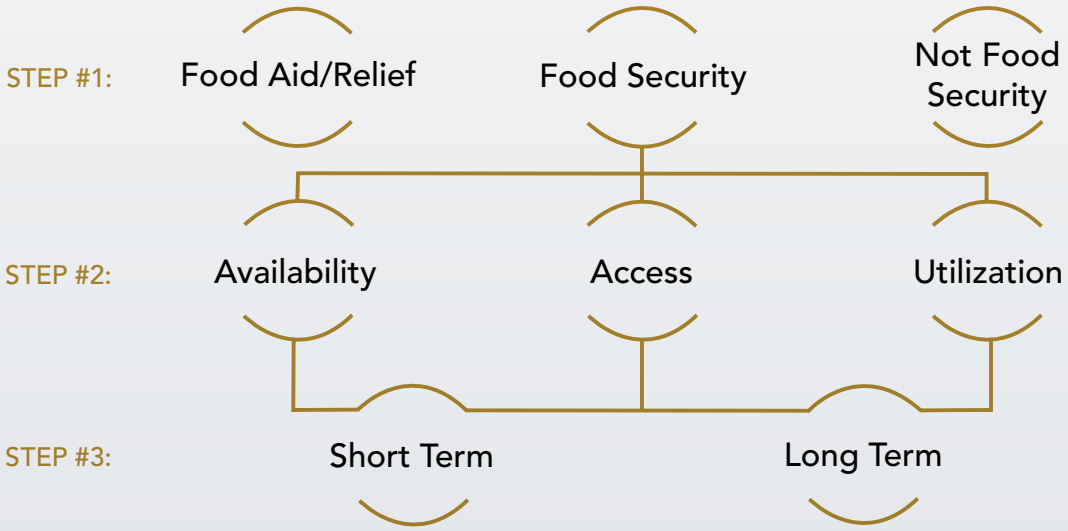


Figure 2. Food Security Definitions Used in This Study

FOOD SECURITY

The FAO's *The State of Food Insecurity in the World* defines food security: "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutrious food that meets their dietary needs and food preferences for an active healthy life."[14]

FOOD AID/RELIEF

Provision of food commodities for free or on highly concessional terms to individuals or institutions within one country by foreign donors. This type of aid may or may not be in response to a humanitatian crisis.

ACCESS

Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic, and social arrangements of the community in which they live (including traditional rights such as access to common resources).

AVAILABILITY

Availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports.

UTILIZATION

Utilization of food through adequate diet and clean water to reach a state of nutritional well-being where all physiological needs are met. This brings out the importance of non-food inputs in food security.

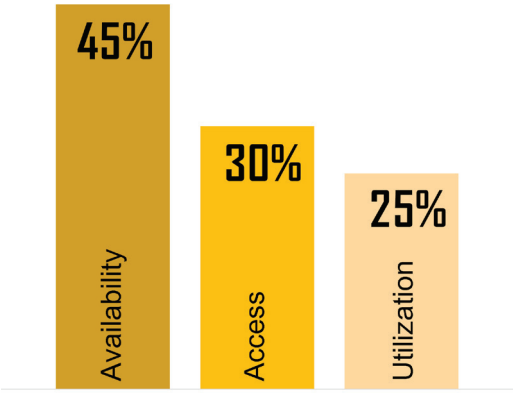
SHORT-TERM IMPACTS

Impacts require seasonally, yearly, or otherwise repeated inputs from donors.

LONG-TERM IMPACTS

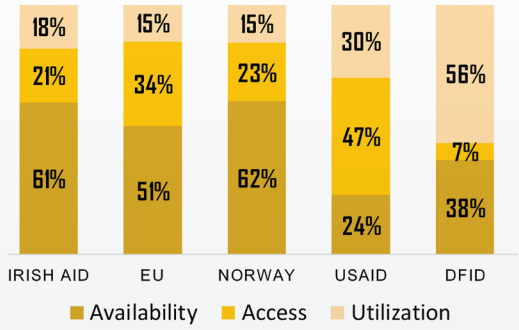
Impacts last past the period of project implementation.

Figure 3. Project Activities by the Three Dimensions of Food Security



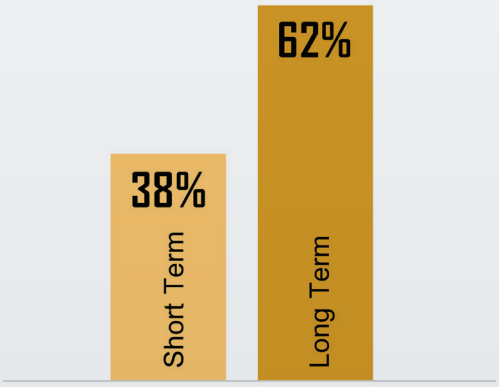
Source: CCAPS/IPD

Figure 4. Project Activities Addressing the Three Dimensions of Food Security, by Donor



Source: CCAPS/IPD

Figure 5. Project Activities Focusing on Long-and Short-Term Impacts



Source: CCAPS/IPD

if he or she found evidence that the banking services were extending credit to small-holder farmers. All projects go through a double-blind coding process and final arbitration by a senior coder.

Implementing the CCAPS/IPD methodology found that 29 percent of all activities within the projects in this study were relevant to food security.

RESULTS OF PILOT STUDY

The CCAPS/IPD Food Security Coding Methodology was tested on five donor agencies selected for this pilot study due to their size and espoused commitment to addressing food insecurity in Malawi, using project documents collected through Malawi's Aid Management Platform (AMP).[15] These included the U.S. Agency for International Development (USAID), Irish Aid, the U.K's Department for International Development (DfID), the European Union (EU), and the Norwegian Agency for Development Cooperation (NORAD). Taken together, these donors gave about USD 2.7 billion dollars in aid to Malawi from 1996 to 2010 (about 45 percent of all reported aid to Malawi), in a total of 347 projects. Implementing the CCAPS/IPD methodology found that 23 percent of the 1,560 activities within these projects were food security relevant. Though this figure cannot be directly compared to the OECD estimate of approximately seven percent of ODA spent on food security around the world, it still represents a substantial proportion of these donors' aid portfolios (ranging from 12 to 43 percent of individual donor activities).[16] It also corresponds to a general focus on food security by donors in Malawi.[17]

However, perhaps the most important distinction highlighted by this work is the breakdown between *availability*, *access*, and *utilization* across all project activities (see Figure 3). While a focus on increasing the *availability* of food, as expected, plays the largest role (45 percent) within food security work by these donors, there were also substantial *access* and *utilization* components of projects as well. This finding suggests that these donors do not all focus resources exclusively on food production in Malawi; indeed, even among the 14 projects explicitly referencing food security

in the project title, approximately 40 percent of activities were coded as either *utilization* or *access*.

This research analyzed individual donors for their distribution of activities (see Figure 4). While Ireland and Norway showed similar percentages of activities within the three components, USAID and DfID were substantially more focused on *access* and *utilization* (respectively). This level of detail can allow donors to coordinate efforts and focus on their relative strengths. For example, the majority of Norwegian food security aid was allocated to availability, aligned with its expertise and commitment to helping farmers adapt to climate change through 'climate robust agriculture.'[18] Finally, tracking the intended duration of projects is especially important in Malawi, which has seen much debate over the merits of repeated agricultural input subsidies over the past decade. This analysis found that nearly two-thirds of all food security relevant activities were intended to be long-term (lasting beyond the period of implementation), which is an encouraging trend (see Figure 5).

Future coding work will include all ODA donors in Malawi (approximately 31 donors reporting to the AMP system), as well as government programs tracked by Malawi's Food Security and Nutrition Program and major non-governmental organizations (NGOs) working on key agriculture and food security programs in the country. The integration of the tracking of both government and donor work on food security will lead to a comprehensive 'snapshot' of food security support over the past decade. Further work could also include consideration of financial commitments and in-depth sector analysis, such as analyzing the percentage of food security activities that fall within the agriculture sector.

Mapping food security project locations over a climate change vulnerability indicator can help to make allocation decisions based on current and projected needs.

Coding aid projects in this manner offers clear benefits, including the use of accepted definitions of the aspects of food security (availability, access, and utilization), and the ability to independently evaluate projects for food security relevance. Still, challenges remain in using this methodology.

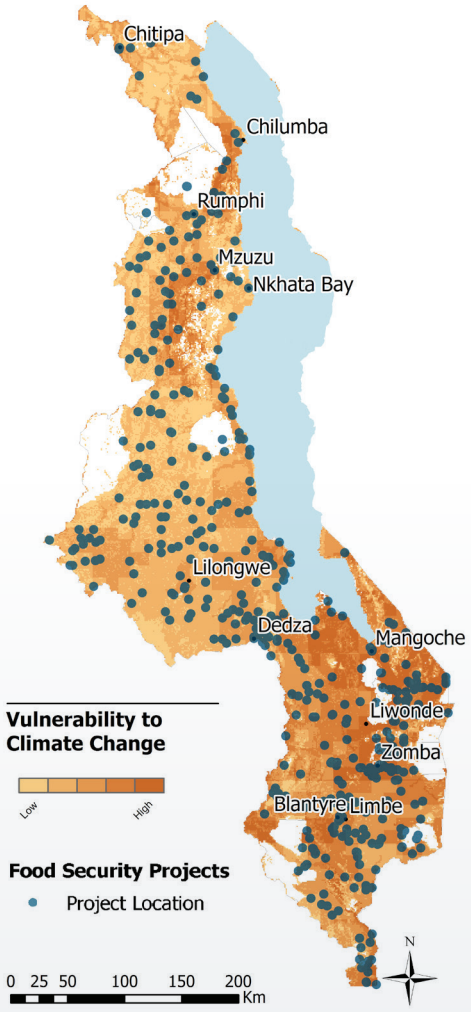
First, accessing project documents for donors remains difficult, with the exception of a few donors such as the World Bank and the African Development Bank. Second, some activities are difficult to place within one aspect of food security. For example, should a water supply activity count as *availability* or *utilization*? In the methodology presented here, only one aspect is chosen for each activity in order to both avoid double-counting of activities and produce meaningful policy guidance.

MOVING FORWARD

This methodology delves into the details of donor project documents to determine what donors are doing to address food security in Malawi, especially in regard to access, availability, and utilization. While this pilot study was limited in scope, it shows that variation exists in the types of food security activities implemented in Malawi. Furthermore, different donors focus on different aspects of food security.

This type of methodology can contribute to increasing donor transparency and coordination within food security aid. Transparency is increased as donors are held accountable to the types of projects they implement, especially under pledges such as those made at the l'Aquila Summit in 2009. Coordination can be improved both in terms of geographic focus and policy goals; for example, mapping food security project locations over a climate change vulnerability indicator can help to make allocation decisions based on current and projected needs (see Figure 6). In terms of policy, this information serves as a tool that policymakers can use to prioritize certain interventions – for instance, targeting malnutrition and the stunting associated with it – a high priority for the government of Malawi. If expanded to include government, NGO, and private sector expenditures, this tracking methodology could provide a comprehensive picture of food security aid in Malawi and beyond.

Figure 6. Food Security Project Locations and Climate Change Vulnerability in Malawi



Source: CCAPS/IPD Food Security Dataset; CCAPS Climate Security Vulnerability Model[20]

ENDNOTES

1 United Nations Development Programme, "Goal 1: Eradicate Extreme Poverty and Hunger," 2015 Millennium Development Goals.

2 FAO, "Hunger Portal," www.fao.org/hunger/en/.

3 Alexander Gaus, "Food Security: A Mapping of European Approaches," *GPPi Research Paper No. 15* (Berlin: Global Public Policy Institute, 2012).

4 R. E. Evenson and D. Gollin, "Assessing the Impact of the Green Revolution, 1960 to 2000," *Science* 3000, 5620 (2003): 758-762.

5 Jennifer Clapp, *Food* (Cambridge: Polity Press, 2012), 28-31.

6 Gaus, "Food Security: A Mapping of European Approaches," 11.

7 L'Aquila Food Security Initiative, "L'Aquila Joint Statement on Global Food Security," 2009.

8 G8 Summit at Camp David, "Camp David Declaration," May 18-19, 2012.

9 OECD, "Aid for Food and Nutrition Security."

10 The authors would like to acknowledge Caroline Thomas, Madeline Clark, Gabrielle Castagno, Cherie Saulter, David Hensley, and Sarah McDuff for their contributions to this project.

11 Catherine Weaver, Justin Baker, and Christian Peratsakis, "Tracking Climate Adaptation Aid: Methodology," *CCAPS Research Brief No. 5* (Austin: Robert S. Strauss Center for International Security and Law, 2012).

12 AidData's methodology is available at www.aiddata.org/content/index/user-guide/coding-scheme.

13 Weaver et al., "Tracking Climate Adaptation Aid: Methodology."

14 FAO, 'The State of Food Insecurity in the World 2012," (Rome: FAO, 2012), 57.

15 Created by Development Gateway, the Aid Management Platform is an online application designed to assist governments in managing their aid portfolios. See www.developmentgateway.org/ programs/aid-management-program.

16 The individual donor percentages are DfID, 12%; USAID, 20%; Norway, 24%; EU, 35%; and Ireland, 43%.

17 For example, see the New Alliance for Security and Nutrition, "Country Cooperation Framework to Support the New Alliance for Food Security and Nutrition in Malawi," www.gov.uk/government/uploads/system/uploads/attachment_data/file/208059/new-alliance-progress-report-coop-framework-malawi.pdf.

18 See Norad, "Malawi," www.norad.no/en/countries/africa/malawi.

19 For further information, see Edward Buffie and Manoj Atolia, "Agricultural Input Subsidies in Malawi. Good, Bad or Hard to Tell," *FAO Commodity and Trade Policy Research Working Paper 28* (Rome: UN Food and Agriculture Organization, 2009).

20 For more on the CCAPS Climate Security Vulnerability Model, see Joshua Busby et al., "Advances in Mapping Climate Security Vulnerability in Africa," *CCAPS Research Brief No. 13* (Austin: Robert S. Strauss Center for International Security and Law, 2013).

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