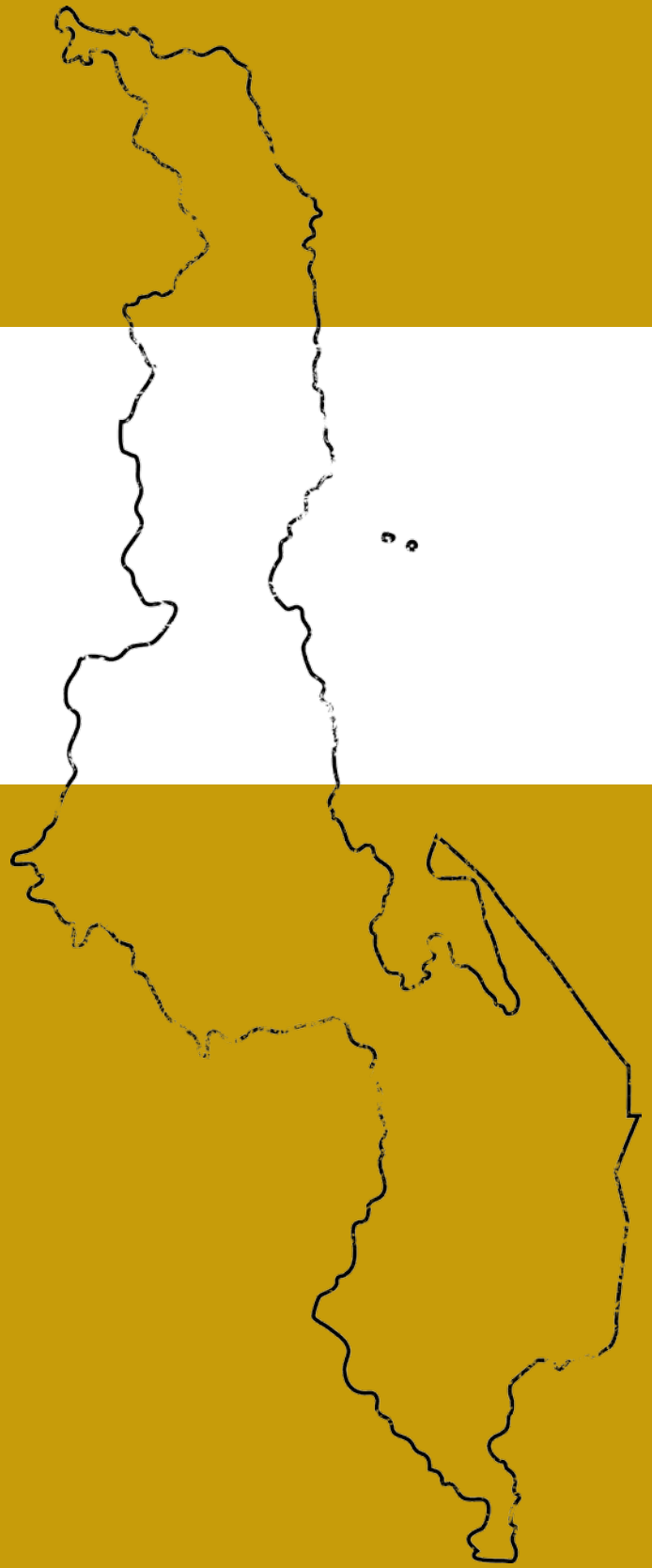


Malawi's Open Aid Map

*Catherine Weaver, Stephen Davenport, Justin Baker,
Michael Findley, Christian Peratsakis, and Josh Powell*



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Acronyms and Abbreviations

AfDB	African Development Bank
AIMS	Aid Information Management System
AMF	Aid Management Fellow
AMP	Aid Management Platform
CCAPS	Climate Change and African Political Stability
CSO	Civil Society Organization
DAC	Development Assistance Committee
DANIDA	Danish International Development Agency
DFID	Department for International Development
DP	Development Partners
DRR/M	Disaster Risk Reduction/Management
FICA	Flemish International Cooperation Agency
GIS	Geographic Information Systems
GIZ	<i>Gesellschaft für Internationale Zusammenarbeit</i>
HESN	Higher Education Solutions Network
IATI	International Aid Transparency Initiative
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
M4R	Mapping for Results
MOU	Memorandum of Understanding
NORAD	Norwegian Agency for Development Cooperation
OAP	Open Aid Partnership
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development

OGP	Open Government Partnership
UCDP	Uppsala Conflict Data Program
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Emergency Children's Fund
USAID	United States Agency for International Development
UT	University of Texas at Austin

Executive Summary

In mid-2011, Malawi became the first country in the world to capture the near-universe of official development aid activities at the subnational level in a publicly available, dynamic map. Led by a team at the University of Texas at Austin’s Climate Change and African Political Stability team, in collaboration with AidData, Development Gateway, the Government of Malawi, the goals of the Open Aid Malawi initiative were three-fold. The first goal was to build upon the single-donor mapping efforts of the Mapping for Results partnership between the World Bank and AidData (Strandow et al 2011) to show that it was indeed possible to gather robust, subnational, project-level information on all donor programs throughout a country. The second goal was to apply the UCDP/AidData geocoding methodology (Findley et al 2011; Strandow et al 2011) to visualize these data on a publicly accessible and transparent interactive dashboard that would enable users to easily search for specific information on donors and their aid activities. The third and most important goal was to begin the process of facilitating development analysis, evaluation, and decision-making by national and international stakeholders. The publicly available maps make this possible by allowing users to display selected project- and activity-level aid data alongside other critical information, such as poverty, population density, and other development indicators. The end product was a major breakthrough in aid transparency, harnessing the power of geomapping to make aid data accessible and usable for a wide array of development stakeholders.

Given that other countries—Timor Leste, Uganda, Senegal, Haiti, and Kenya—are now following the Malawi model, this paper tells the story of Malawi’s Open Aid Map from conception to “proof of concept” to key lessons learned. The first section of the paper traces the evolution of the mapping initiative, detailing the key goals, actors, and processes that led to the collection and geocoding of information on nearly 800 aid projects and 2,900 activities from 31 ODA donors in Malawi. The second section presents the data and illustrates how the data have the potential to be a powerful tool for analysis and decision-making through the presentation and discussion of several types of maps, including those specific to key donors and sectors of aid. This section also discusses what we *cannot* see in the maps, highlighting critical data gaps and constraints that will inform future mapping work. The third section of the paper in turn offers reflections

on the tremendous potential of aid mapping, while noting the challenges inherent to sustaining such work and the need to demonstrate the impact of mapping on aid transparency, accountability and effectiveness.

Malawi's Open Aid Map

*Catherine Weaver**, *Stephen Davenport***, *Justin Baker**, *Michael Findley****,
*Christian Peratsakis*****, and *Josh Powell*****

Opening Aid: Transparency in International Development

In the past several decades, international development aid has been the focal point of high profile public campaigns and academic debates. These debates generally fall along a lengthy spectrum of ideological stances that view aid, on the one hand, as a potential panacea for countries stuck in poverty traps and, on the other, the perpetrator of persistent poverty and underdevelopment in the world.¹ Behind this vitriolic battle is a growing awareness that what we actually know and do not know about aid and its effects is contingent upon the quantity and quality of available data.

Historically, comprehensive information about where development aid was going, to whom, by whom, and to what end, was severely limited. Due to factors such as technical constraints, a lack of political awareness, or pressure for collecting data through donor or recipient reporting mechanisms, tracking development aid has been a grueling and seemingly never-ending task. The Organisation for Economic Co-operation and Development (OECD's) Development Assistance Committee's Creditor Reporting System was for decades the only source of information on global aid flows. Today, the OECD Development Assistance Committee (DAC) continues to be the primary vehicle for capturing data on official development assistance (ODA) and official assistance flows, albeit almost exclusively aid from OECD member states and participating multilateral organizations.² Since 2004, AidData has provided an additional source of rich project-level information on aid flows from both DAC and non-DAC aid donors from 1970 to the present, bringing the total aid tracked to \$5.4 trillion.³

1. See, e.g., Sachs 2005; Collier 2007; Easterly 2006 and 2008; Moyo 2009; Easterly and Williamson 2011; Roberts et al 2011.

2. See <http://www.oecd.org/dac/stats/usersguidetothecreditorreportingsystemcrs/aidactivitiesdatabase.htm>

3. See <http://www.aiddata.org>

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Yet the rapidly shifting landscape of international development aid, and growing concern about aid effectiveness, is placing increasing pressure on existing reporting systems to include more comprehensive, detailed, accessible and comparable information on aid activities and results.⁴ Specifically, the growth in the number of actors involved in providing development assistance (from both non-DAC states and non-governmental organizations) has generated interest in expanding data collection beyond traditional donors to capture the full spectrum of aid resources available to developing countries in this new “age of choice.”⁵ The expanding gamut of development objectives, including governance and anti-corruption, environment, gender, and climate change adaptation, has in turn incited demand for new reporting schemas to capture aid activities that did not fall into traditional sectors of aid lending. Moreover, the growing demand for better aid information has generated interest in developing means of collecting real-time data on aid activities, as well as more precise information on the subnational locations of aid to facilitate targeted allocation and impact evaluation. All of this is now encompassed in a larger international aid transparency agenda that is converging with emerging international norms regarding informational disclosure and open government policies.⁶

Over the past ten years there has been tremendous movement in advancing the global aid transparency agenda, under the premise that the provision of better aid data will lead to numerous positive spillover effects, including: improved feedback loops between donors, governments, and beneficiaries; improved donor division of labor; enhanced partner country government “ownership”; improved monitoring and evaluation of aid programs; and eventually better resource accountability and performance. Serious steps towards aid transparency were taken at the 3rd High Level Forum on Aid Effectiveness in Accra, Ghana in 2008, as a follow on to commitments made at the 2003 and 2005 High Level Forums in Rome, Italy and Paris, France. As a joint initiative of the United Kingdom’s Department for International Development (DFID), the World Bank, and the government of Malawi, the International Aid Transparency Initiative (IATI) was created after the Accra meetings to establish a common data reporting mechanism that would be “necessary but not sufficient” to facilitate development effectiveness. Over the course of the next four years, the list of participants in the IATI standard expanded to include over 35 donor agencies, 22 partner countries, and over 100 civil society organizations publishing data. Culminating in 2012, at the final High Level Forum in Busan, South Korea with the official United States Government IATI endorsement from then Secretary of State Hillary Clinton, the aid transparency agenda reached a tipping point. With over 75 percent of all ODA represented by IATI signatories, the standard became the basis for the “Global Standard” agreed to in the Busan Declaration.

With aid information supply gearing up, the challenge immediately turned to demand for and accessibility of those data. In 2010, the World Bank Group, struggling to demonstrate the impact of its own development programs to the general public, launched the Mapping for Results initiative (M4R)⁷ to geocode the lending portfolios of the International Development Association and International Bank

4. See for example the efforts of the Publish What You Fund campaign (<http://www.publishwhatyoufund.org/>) and the Center for Global Development and Brookings Institution’s Quality of Official Development Assistance annual assessment of aid agencies’ performance (<http://www.cgdev.org/page/quality-oda-quoda>). For an overview of the international aid transparency movement, see Dodds et al (forthcoming).

5. Greenhill, Prizzon and Rogerson 2013.

6. On the aid transparency movement, see the International Aid Transparency Initiative (IATI), at <http://www.aidtransparency.net/>. On the open government movement, see the OGP at <http://www.opengovpartnership.org/>

7. <http://maps.worldbank.org>

for Reconstruction and Development. It was during this M4R work that the geocoding process and methodology was formalized and enhanced, in partnership with AidData. Tremendously successful both internally and externally, the World Bank was approached by several other aid agencies who were interested in replicating the World Bank's and AidData's mapping programs, ultimately culminating in the creation of the Open Aid Partnership (OAP).⁸ As of April 2013, Sweden, the United Kingdom, Spain, the Netherlands, Estonia, Finland, the Czech Republic, Canada, the African Development Bank, and the World Bank have endorsed the Partnership and engaged in similar project geocoding and analytics. Additionally, several development agencies have approached Development Gateway and AidData to kickstart their geospatial work, including the African Development Bank (AfDB), the Asian Development Bank and the Islamic Development Bank.

The World Bank's efforts to geocode its own global portfolio and make this information available in open source maps was a major breakthrough in aid transparency, facilitated by the Bank's recent overhaul of its information disclosure policies and the publication of all project documents on its public website. The initiative demonstrated for the first time that it was indeed possible to take complex information on aid, buried in dense spreadsheets or internal reports, and visualize that data cleanly in a map format. End users are able to interact with the data to see aid in a whole new way, layering World Bank project location data on top of indicators such as poverty and literacy rates, to analyze patterns of aid allocation and identify where gaps in aid provision exist. The Mapping for Results initiative provided a critical demonstrative effect, establishing a best practice for data accessibility in international aid transparency.

However, the maps lay bare the limits of single-donor mapping. In particular, to get traction on key issues such as donor division of labor, to better assess aid allocation patterns, and to identify gaps in service delivery, it was necessary to capture *all* donor aid activities on a common interactive visual platform. Researchers at the University of Texas at Austin and AidData recognized this and began searching for a means of capturing all donor aid activities for a given country to provide a more comprehensive picture of total aid resources. Such a task was a logical follow-on to the World Bank's efforts, but a tremendous challenge given the need for – and the dire scarcity of – project-level information from other aid donors. Replicating M4R for all donors globally represented a difficult task, even as IATI made discernible progress in getting donors to commit to the publication of project information.⁹

The Malawi Experiment

By the end of 2010, it was clear that comprehensive donor aid mapping would need to proceed at the country level. The first step, however, was finding a way to access and collect donor project information. One way to approach this task was to approach each donor through headquarter contacts, obtain all project documents for a given country or set of countries, and then carry out the coding. Unfortunately, at that time, most donors either would not provide access to documents or did not have their documents packaged at the headquarter level. The preferred alternative was to perform the data collection in-country,

8. <http://www.openaidmap.org/> See also Dodds et al (forthcoming).

9. IATI has a geocoding standard based on the UCDP/AidData methodology, but geocoding reporting remains optional for IATI signatories.

by working with recipient country governments already managing such documents and maintain a close working relationship with local donor offices.

The key entry point was finding a country progressive enough in using a domestic aid management platform to track ODA flows. In December 2010, Professors Kate Weaver and Michael Findley of the University of Texas at Austin's Climate Change and African Political Stability (CCAPS) program, with Christian Peratsakis (formerly with CCAPS, now at Development Gateway), partnered with Stephen Davenport and Josh Powell at Development Gateway to identify a recipient country in Development Gateway's Aid Management Platform network that would be able and willing to facilitate the donor outreach and data collection necessary to support cross-donor geocoding. In December 2010, Peratsakis, Weaver and Findley traveled to Nairobi, Kenya for Development Gateway's annual Aid Management Platform (AMP) Best Practices Workshop.¹⁰ Together with Davenport, they identified several countries with progressive finance or planning ministries that might be willing to partner on a pilot project to map the universe of active ODA projects within a single country.

The Malawi delegation at the 2010 AMP workshop included Stan Nkhata (Deputy Director of Aid and Debt Coordination Unit, in Malawi's Ministry of Finance) and Aaron Batten (Overseas Development Institute fellow, then seconded to the Ministry of Finance in Malawi). Both were open to the possibility of geocoding the universe of donor aid in Malawi proposed by the CCAPS and Development Gateway team. Over the course of the meeting, the University of Texas and Development Gateway team reached a mutual agreement to move forward and secure agreement from all necessary parties. The Malawi Ministry of Finance gave full permission at a follow-up meeting in Lilongwe in January 2011. Findley traveled to Lilongwe to meet with officials in the Ministries of Finance and Development, Planning, and Cooperation and also assess the availability of donor project documents. Batten arranged a number of meetings in the Ministry to help relevant officials understand the potential of mapping. During the visit, the Malawian Secretary to the Treasury gave verbal agreement, with a memorandum of understanding (MOU) following shortly afterwards. This MOU was essential for securing government cooperation with the geomapping pilot, as well as gaining access to the AMP system to identify the full list of donors working in country and an inventory of active aid projects.

Gathering project documents needed for geocoding, however, proved to be far from straightforward. Although the Ministry of Finance maintained some current donor documentation, most of their donor documents were dated and/or represented closed projects, and nearly all were in hardcopy (non-digital) form. Accessing current project documents became the key priority. During the January 2011 visit to Lilongwe, Findley, along with Batten, met with representatives at the United States Agency for International Development (USAID) mission, Irish Aid country office, and the World Bank representative stationed at the Ministry of Finance to discuss obtaining documents directly from their offices. These meetings were generally positive, though preliminary, and paved the way for a larger team to return and track down the bulk of the documents.

Following the visit, another formal memorandum of understanding between the Malawi Ministry of Finance and the University of Texas' (UT's) Robert S. Strauss CCAPS program was signed. Weaver then organized a group of Master's students from The LBJ School of Public Affairs at UT-Austin to travel

10. The Best Practices Workshop is a forum provided by Development Gateway for its 24 AMP partner countries to share experiences and lessons learned in aid management.

to Lilongwe to obtain donor documents. Armed with hand scanners and laptop computers, the team¹¹ visited Malawi for two weeks in March 2011 and scanned as many donor documents as possible. They also contacted several donor agencies directly (e.g. by phone, email, local visit, etc.) to collect documents, where available, for projects listed as active (open) in the AMP portfolio. During the first visit, they obtained documents for approximately 50 percent of the active projects to Malawi.

At the conclusion of this visit, the Master's students returned with the digitized project documents to the University of Texas. In May-July 2011, the CCAPS program, along with AidData at the College of William & Mary and Brigham Young University, sponsored a summer internship at Development Gateway in Washington, D.C. for graduate and undergraduate students. Under the supervision of Powell and Peratsakis, twelve students geocoded all the activities found within the aid project documents collected in Malawi, according to the UCDP/AidData geocoding methodology (Strandow et al 2011). During the coding process, the team was in constant contact with the team in the Malawi Ministry of Finance. Initially, Aaron Batten served as the primary contact. However, in July 2011, Batten transferred from Malawi to Papua, New Guinea. This personnel change, combined with the limited coverage of available documentation prompted Powell and Peratsakis to begin preparations for a return trip to obtain as many of the remaining documents as possible. The return visit occurred in August 2011. Powell and Peratsakis, with the assistance of Jethro Buttner (Development Gateway's Project Manager for the Malawi Aid Management Platform) met with approximately 15 donor country offices (including USAID, DfID, World Bank, AfDB, NORAD, FICA, UU, UNDP, UNICEF, GIZ, and IrishAid). The team was able to successfully locate documents for an additional 30–35% of the active projects, which accounted for US\$5.3 billion in total commitments (about 75% of all commitments) and \$3.7 billion in total disbursements (about 80% of all disbursements) of the overall development assistance flowing into Malawi at that time, as recorded in the AMP system. Another key output of this trip was to build a sustainable relationship with the Ministry of Finance team. Specifically, Batten was replaced in the Ministry by a UNDP expert, Magdalena Kouneva, who became the team's key point of contact in securing donor documentation. This mission is instructive, as future attempts of multi-donor geocoding should include multiple visits in-country to create close contacts and to accommodate turnover in both the Ministry and Donor Country offices.

Following the second visit, the UT CCAPS team completed all geocoding between September and October 2011. Additionally, all projects were sector coded according to the AidData sector coding methodology (Tierney et al 2011) so a thorough examination of all facets of the development assistance would be possible. The CCAPS team then created maps illustrating all donor project locations in Malawi. These data and maps were published on the CCAPS dashboard, developed in partnership with Development Gateway, available at ccaps.aiddata.org/aid.

Beyond Geocoding: Sectoral Mapping of Malawi's Climate Aid

The initial geocoding pilot provided a unique opportunity for another key innovation in the use of geographic information systems (GIS): the use of geocoding to conduct a targeted subnational, sectoral

11. The team was composed of four MA students from the University of Texas: Dylan Malcomb, Gigi Mao, Hoor Jangda, and Sarah Fiorenza.

analysis of international aid for climate change adaptation and mitigation programs in Malawi. The CCAPS climate aid tracking project was the result of a recognition by the Intergovernmental Panel on Climate Change (IPCC) of Africa's high vulnerability to climate change risks, as well as the call from the United Nations Framework on Climate Change (UNFCCC) for better tracking of developed countries' pledges of "new and additional finance" for climate change adaptation in developing countries. More importantly, the CCAPS project was a response to Malawi's own emerging attention to climate change risks and the need to mobilize national and international resources for adaptation, particularly in Malawi's rainfall-dependent agricultural sector.

From September 2011–May 2012, the CCAPS team developed a method for coding the climate change relevant activities within the portfolio of Malawi aid projects.¹² The coding methodology was based upon an extensive literature review of climate aid studies and reports, and vetted with subject matter experts from numerous development aid agencies, think tanks, non-government organizations, and academic scholars. In November 2011, the CCAPS teams, under the direction of Weaver and Peratsakis, organized a workshop on tracking climate adaptation aid at Development Gateway. The workshop included participants from the World Bank, Inter-American Development Bank, World Resources Institute, and other major aid agencies, NGOs, and academic centers. The workshop was followed by a full day conference on the Open Aid initiative, organized by Development Gateway, AidData and CCAPS, and hosted at the World Bank, which featured both the work on Malawi's Open Aid Map as well as the climate-sector work.¹³

The UT CCAPS team completed the climate coding in early Fall 2012 and published the methodology as a CCAPS research brief.¹⁴ The climate and geocoded aid data for Malawi were published on the CCAPS dashboard (see Appendix A). The CCAPS team gathered feedback on the methodology and maps in Lilongwe, Malawi in January 2013. This climate aid mapping work represents one first extension of the general aid mapping work into a sector previously not captured within traditional OECD purpose or sector reporting schemes.

Initial Results

The Open Aid Map for Malawi (see figure1) captures 754 projects (534 of which were successfully geocoded) in over 2,500 project locations from 31 donors (see Appendix B).¹⁵ Projects were geocoded with the most specific location information possible, as obtained from the Ministry of Finance or directly from donors. Below we discuss a few very simple static maps to demonstrate the kind of visualizations that are possible using these data.

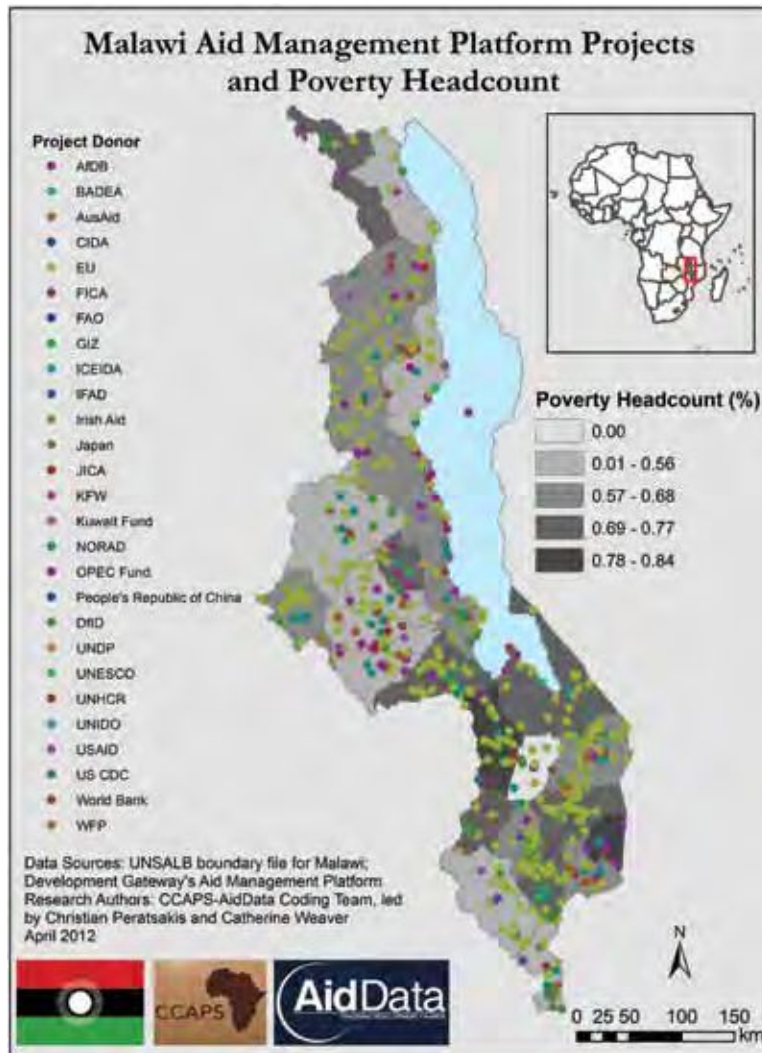
12. The team, led by Weaver and Peratsakis, included Dylan Malcomb, Justin Baker, Milad Pournik, Abigail Ofstedahl, Sarah McDuff, Elena Rodriguez, Hannah Murphy-Pack, Bryan Stephens, and Florence Pichon.

13. <http://www.strausscenter.org/details/168-conference-putting-aid-data-to-work.html>.

14. A step-by-step guide on the CCAPS climate coding methodology is available from Christian Peratsakis, Justin Baker, and Catherine Weaver, "Tracking Climate Adaptation Aid: CCAPS Climate Codebook" (Austin: Robert S. Strauss Center for International Security and Law, 2012). The raw climate-coded and geocoded dataset is available for download at <http://www.strausscenter.org/aid.html>.

15. The 220 projects not accounted for here were "uncodeable" due to insufficient information in the project documents.

Figure 1: Malawi's Open Aid Map (2012)



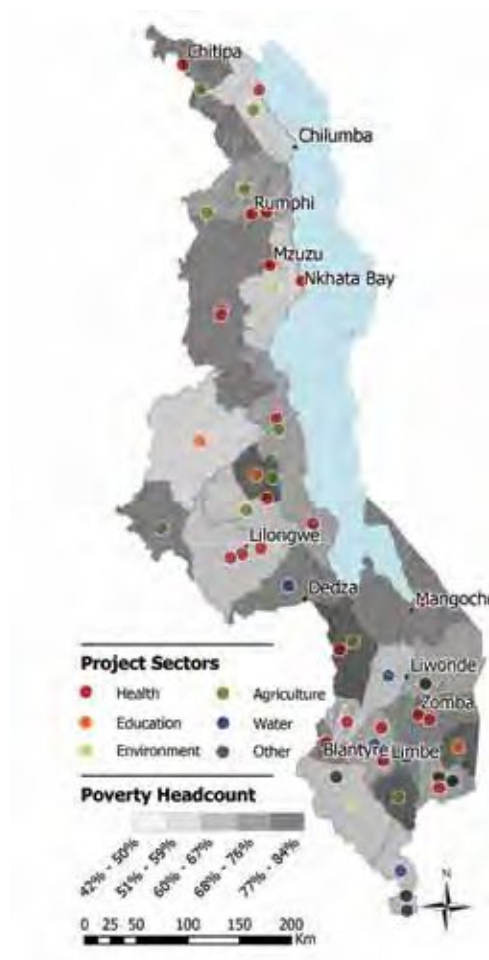
The Open Aid Map, available in a dynamic, searchable platform at ccaps.aiddata.org/aid, emphasizes the 'spread' of aid in Malawi, with many donors working on projects across the country. The advantage of the ESRI ArcGIS platform, on which the map is built, is that it allows for the importation of numerous base-layer maps to enable users to locate aid projects in relation to other key development indicators, such as poverty rates. Such a visual platform provides a potentially powerful analytical tool for aid planning, allocation assessment, and evaluation. For example, even without sophisticated spatial statistical analysis, it is evident that aid is heavily concentrated in densely populated urban areas, such as Lilongwe (the capital) and Blantyre (the country's commercial center). While it is critical not to draw too many inferences or normative judgments from static maps (issues we discuss below), the geocoded data readily provide easily accessible and navigable information on aid that raises important questions and can inform further analysis.

As discussed below, the greatest value of this data from donors comes from its various applications. The following sections illustrate the potential utility of the Open Aid Maps by outlining examples of how the data can be visualized and combined with other data sources to aid in analysis, coordination, and planning.

By Donor

A single-donor map, such as that shown in figure 2, provides insight into the allocation of aid by a single donor across sectors. In this case, the map shows USAID's portfolio against a measure of district-level poverty in Malawi. This type of map can be used to locate future projects within particular sectors. Furthermore, these maps could be easily generated on a regular basis to provide consistent updates on donor work, both for donor reporting and accountability by others.

Figure 2: USAID Project Locations and Poverty in Malawi

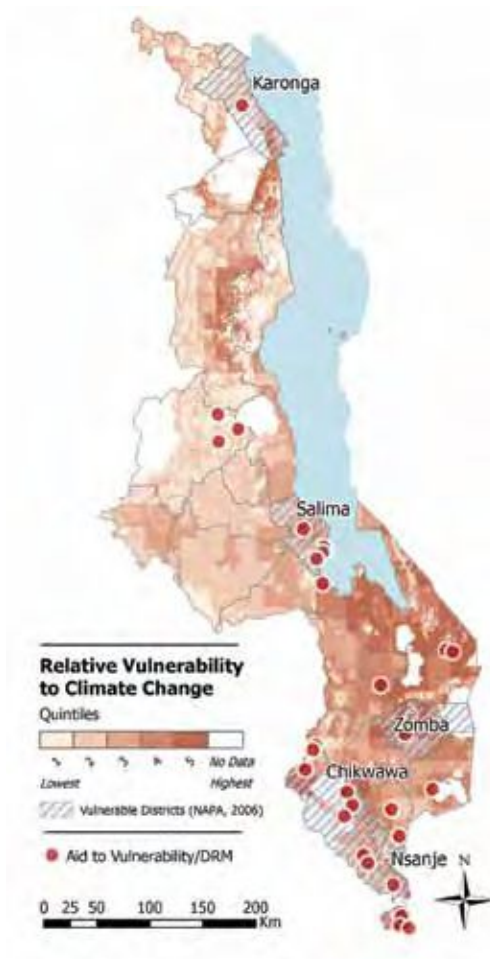


By Sector

While donor-specific maps are useful for accountability and feedback at donor headquarters, sector maps have the potential to increase the efficiency of the aid itself by providing information that can foster intra-donor cooperation and line ministry budget planning. For example, multi-donor sector maps can signal whether or not a given donor is targeting the areas in greatest need and identify where existing projects or programs overlap. This can enable the government to identify areas where domestic programs could best complement aid resources or fill critical strategic and immediate gaps.

Figure 3, for example, shows Malawi's climate-related Disaster Risk Reduction/Management (DRR/M) projects over the CCAPS climate change vulnerability index. The map demonstrates that these projects are generally well-targeted, as they fall in and around the most vulnerable districts in the country—identified under Malawi's 2006 National Programme of Action.¹⁶

Figure 3: Climate-related DRR/M Projects and Climate Change Vulnerability in Malawi



16. For more information, see Malawi's National Adaptation Programme of Action (NAPA), First Edition, Ministry of Mines, Natural Resources and Environment, Environmental Affairs Department, March 2006

Figure 4: Water Sector Projects and Average Rainfall Levels in Malawi



Another example comes from the water, sanitation, and irrigation sector. In figure 4, we see water supply, sanitation, and irrigation projects overlaying a measure of average rainfall in Malawi. The map raises several important questions, such as whether water projects are being implemented in the areas of lowest rainfall, or whether water projects are reaching rural areas that are far from pre-existing infrastructure.

Figure 5 shows health projects relative to health facility density across Malawi. A donor planning a health project might use this information to target areas relatively underserved by both health facilities and other projects. Together, these sector maps illustrate how precise geocoded data allows aid location information to be combined with a variety of other GIS data sources (e.g. remote-sensed and census data) to ask and begin to answer key development questions.

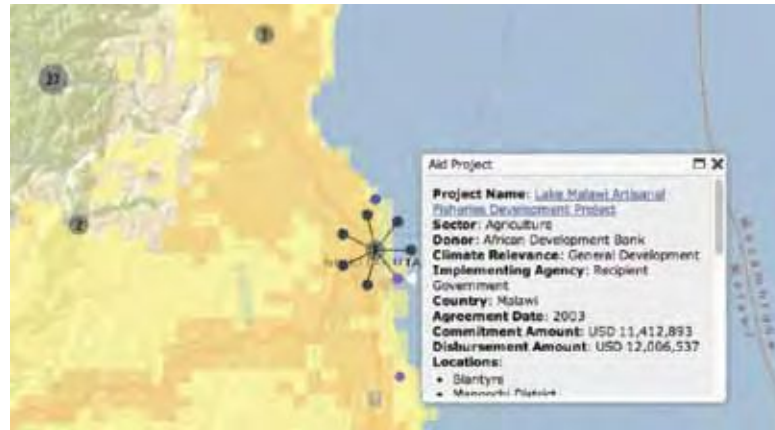
Figure 5: Health Projects and Health Facility Density in Malawi



Dynamic and Interactive Mapping

All of the Malawi geocoded aid data is publicly available through the online CCAPS dashboard (<http://ccaps.aiddata.org> and <http://ccaps.aiddata.org/aid>): an interactive platform that brings together spatial data on vulnerability, conflict, and aid. This dynamic platform offers a number of advantages over static maps. The interactive dashboard (built on ESRI's Javascript Application Program Interface) allows users anywhere, even with minimal technical skills, to access the dataset and related analytics. The dashboard can also be easily and regularly updated. Moreover, it allows multiple base data layers and base maps to quickly show data patterns and trends. Projects can be searched and filtered to focus on certain criteria and are linked to source information directly. Figure 6 demonstrates how information on a specific project can easily be viewed in the dashboard.

Figure 6: Snapshot of CCAPS Dynamic Aid Map



Maps inherently open the analysis and discussions of development assistance to new communities of knowledge and practice. It no longer requires the ability to manipulate data within complicated database structures to ask fundamental questions about aid allocation, efficiency, and effectiveness. In many regards, mapping of development finance is the quintessential example of the “democratizing development” agenda of which Robert Zoellick, then-President of the World Bank, spoke in 2010 (Zoellick, 2010).

But a crucial question remains: for whom are we increasing aid transparency and how are stakeholders using the mapped information? The CCAPS dashboard is a step in the right direction, but also represents the beginning of a much longer journey. To have a larger impact on development, the dashboard’s reach must be further expanded to ensure that aid data is integrated with that of the Government Aid Management Platform (aid) and the Government’s own expenditure data (budget). Strong government ownership is key to the success or failure of this expansion and directly related to a larger open development effort. With this in mind, Development Gateway is currently working with the Government of Malawi to update its AMP to include the geocoded data by providing an Advanced GIS Module. Once included, Ministry staff will be able to geocode new projects themselves, visualize the latest data in their own locally-hosted system, and perform analysis on their own country platform. An example of such work

Figure 7: Aid in Honduras



is shown in Figure 7, a screenshot of Honduras' recently-launched public Advanced GIS Module. This module has similar functionality to the CCAPS dashboards and is integrated with the AMP platform.

The Promise and Power of Open Aid Mapping: Initial Lessons

When the initial Malawi maps were created, they generated significant interest within the donor community and other partner countries using AMP. These maps were presented at the World Bank Spring Meetings in Washington, DC in support of the official launch of the OAP and to mobilize interest in replicating the multi-donor mapping model established in Malawi across several other countries. In January 2012, the Malawi maps were presented at Development Gateway's annual AMP Best Practices Workshop, inspiring many other AMP countries to request similar work.¹⁷

In building the Malawi Open Aid Map, we learned several lessons about how such aid mapping efforts could be designed, implemented and sustained. In anticipation of efforts to develop similar programs in other countries, three broad issues need to be addressed in open aid mapping:

1. Government ownership

When building an Open Aid Map, it is critical for the government to take a leading role in all facets of data management from data creation to data dissemination and analysis. There is likely a huge up-front investment in data creation designed to “catch up” to the present point in time by geocoding all ongoing activities or all activities in the local Aid Information Management System (AIMS). This work may best be done by outside groups who have the resources and technical capacity, such as CCAPS and AidData in the case of Malawi's Open Aid Map. However, a third-party solution is not sustainable. The government and its development partners (DPs) must be prepared to take over the data creation process immediately upon completion of this up-front investment. If a significant lag occurs between the initial geocoding and local takeover, there will again be a large backlog of new projects in need of geocoding and momentum will be lost in-country. Therefore, all applicable software tools should be installed as early in the process as possible and all relevant actors (i.e., groups responsible for updating geocoded data) should be trained both early and often. There is also great advantage in doing this in country as opposed to remotely. Beyond reasons of investment and ownership, proximity to donors and timely access to project information are critical for keeping the data in the maps as current and accurate as possible.

While greater government ownership of the mapping efforts is critical for sustainability, one of the greatest challenges here is the high rate of turnover within ministry and country office staff and decision makers. For example, in Malawi our key focal point in the ministry, an ODI fellow, transferred to another country in the middle of the data collection process. Focal point turnover should be managed by constant communication and collaboration to train replacement staff and familiarize them with the nature and

17. The subsequent use of the Malawi maps, combined with AMP country interest, led USAID to provide five years of funding (2013-2018) to the AidData partnership to create Open Aid Maps in 15 partner countries through the Office of Science and Technology's Higher Education Solution Network (HESN).

importance of the ongoing work. The best way to handle the turnover of the staff updating the data during the sustainability phase is to (a) train as many staff as possible at one time, (b) provide multiple follow-up trainings, and (c) provide a clear, comprehensive user manual to walk new staff through the entire geocoding process and features of the applicable software.

It is also important for the government to take a lead role in requesting the compliance of its development partners. DP country offices are constantly subjected to data and reporting requests from a variety of actors (government, headquarters, local initiatives, etc). This can lead to resistance in providing the information needed to build an Open Aid Map. We have found in several countries (Malawi, Nepal, Laos, and Haiti) that this resistance is softened when a data request is accompanied by a letter from high-ranking officials in the relevant ministry (e.g., Planning, Finance, Prime Minister—wherever the Aid Coordination Unit is located). Further, allowing the government to set the agenda and schedule donor interactions fosters government ownership and ensures sensitivity to any local political dynamics.

II. Building Relationships and Focal Points in Country

The process of developing an Open Aid Map is dependent upon building and maintaining local relationships. In previous geocoding efforts, Development Gateway's engagements in implementation of Aid Management Platforms made long-term relationships with the Aid Coordinating Ministries possible. Future Open Aid Map programs may lack this strong pre-existing relationship, however, and thus should focus early efforts on building strong partnerships with the government at the outset, as well as with development partners. If a strong relationship exists with the government, the local donor coordination group is likely the best entry point.

However, it should be noted that a multi-donor meeting is not a replacement for individual DP meetings at their local offices. Where possible, every effort should be made to build a strong relationship with each DP, to ensure that the proper technical staff is in attendance, and to obtain the designation of an individual focal point. For both ministry and DP partnerships, multiple in-country trips are recommended with time dedicated to regular meetings with DPs—particularly the largest ones (to build strong support from influential actors) and the ones who are slowest in providing data (to build a stronger relationship and provide a sense of urgency). If possible, a long-term consultant should be embedded in the relevant Ministry to provide a sustained in-country presence for donor outreach and government training, to initiate outreach to line ministries and civil society, and to provide additional quality assurance for the data being generated. Development Gateway's new Aid Management Fellows program¹⁸ provides a good working example of this type of sustained engagement.

At the conclusion of the initial trip, the geocoding team should have a roster of contact information for individuals who have been designated by the government and each DP as a focal point for this exercise. Within the government, this focal point is responsible for follow-up with donors who fail to comply with their commitment to provide data, informing the ministry of progress, informing the geocoding team of any particular needs (e.g., focus donors to geocode quickly and present to a minister or visiting delegation)

18. For information on Development Gateway's Aid Management Fellows program, see <http://blog.aiddata.org/2013/01/the-aid-management-fellow-decoded.html>.

and helping to maintain the momentum of the program. Each DP focal point should serve the purpose of collecting information on individual projects from project managers/leads, answering specific questions about individual projects from the geocoding team, and informing the country office of progress. Having these focal points in place and specifically designated by the participating organizations (e.g., by asking a DP manager directly who will serve as your counterpart for the exercise) is critical to ensuring the timely and thorough provision of data from each DP.

The most frequent objection to geocoding from DP country offices is that it will require too much effort on their part. The process of gathering project documents, validating locations with implementing partners, or filling out lengthy forms is onerous when paired with their existing reporting responsibilities. Thus, it is critical that the collection process is sensitive to the existing workload of country office staff and provides simple ways to report information. AidData has developed and augmented a location collection template and often recommends that donor staff simply share this template with each project manager as a survey that will take them only a few minutes to complete. This excel template is also easy to geocode and integrate with other data. This is often a preferred method of data provision for the DPs as opposed to the emailing of project documents for each project. As an overarching principle, it is important to communicate to the donors a willingness to answer any questions, join calls, or do anything else that will simplify the process for them. Meeting with DPs on multiple occasions is an excellent way to ensure that their needs are met (both in reporting to and benefitting from the initiative) and that their reporting efforts are producing results.

III. Go Local

The map of Malawi created a significant buzz in the international development community. It has been shown in many World Bank, Open Aid Partnership, and academic presentations. The CCAPS map dashboard (<http://ccaps.aiddata.org/aid>) represents one of the most exciting ways in which the data have been used. However, there has not yet been a substantial effort to publicize this information in-country—to government line ministries, local universities and Civil Society Organizations (CSOs), and even to the DPs who participated in the data collection exercise. In the future, there should be a substantive “wrap-up” mission in each country that focuses significant attention on raising local awareness about these data and how they can be put to use. This mission should focus on providing training to Ministry and DP staff, as well as outreach and training to line ministry and CSO staff. This should help maximize the impact of Open Aid Maps and also contribute to the political will needed to sustain and update the maps. Where possible, this “wrap-up” mission should also represent a kickoff for more long-term collaboration and conversation between the Open Aid Map creators, the government, and civil society. Rather than considering the work complete after initial publication, additional engagement should be maintained to ensure the sustainability and timely updating of the dataset and maps.

One of the key motivating factors for DPs and governments in pursuing geocoding is to have a quick overview of who is doing what and where. Frequently, when requesting data from a DP, the DP’s first question will be “when will this be available to us and to the public?” Having a short lead-time is helpful in motivating data collection from DPs and also helps to build and sustain momentum for continued

use of the mapping tools for both data updates and ongoing analysis. In a country with many donors and projects, this may require beginning with the largest donors and providing interim releases of data

Box 1. Current Open Aid Map Methodology

Based upon the lessons learned in Malawi discussed above, and subsequent pilots in Haiti, Laos, and Nepal, AidData has created an updated implementation methodology to be used in its work with the Open Aid Partnership and USAID's HESN. The ideal implementation steps are outlined below.

1) Formal agreement with country government

As with Malawi, it is critical that a formal, signed agreement is reached with the country government prior to initiating work. This agreement should clearly define the terms of use for the data (ideally public with an open attribution license), the expected inputs from each partner (geocoding labor, project management, local training, and an embedded Aid Management Fellow from AidData; formal data requests to donors, hosting of Aid Management Fellow, availability of staff time to provide sustainability after the initial effort from the Ministry), and the proposed timeline of the activities.

2) Identification and training of Aid Management Fellow

Selecting and training a well-qualified Aid Management Fellow (AMF) is a critical step in the Open Aid Map process. The AMF serves as the in-country conduit between the Open Aid Map team, the partner country government, and the donor community. The AMF is also critical for providing repeated training sessions to Ministry and DP staff to ensure that the relevant groups are prepared for the sustainability phase. Finally, the AMF is responsible for much of the data quality assurance and should train Ministry staff to perform those same quality assurance checks.

Kickoff Mission

The kickoff mission is perhaps the most important step in the Open Aid Map process. During the initial mission, training should be provided to Ministry staff, senior management at the Ministry should be briefed and presented with the goals and timelines of the activities, the logistical preparations and introduction of the AMF should be arranged, selected line ministries and civil society organizations should be contacted and informed of the upcoming work (to begin stoking the demand for the data), and all of the major donors should be contacted to provide a formal data request signed by a senior Ministry official. Plans should also be made for follow-up dates to ensure that the donors follow through on their commitments to provide the requested data. Finally, if the country does not already have the latest version of its AIMS with a geospatial module capable of visualizing the geocoded data, a software upgrade should be performed during the kickoff mission (or shortly thereafter).

Initiate geocoding work and provide interim data releases

The geocoding work should begin as soon after the initial mission as possible, to ensure the shortest time lag between informing in-country stakeholders of the initiative and sharing the earliest results with those stakeholders. To accomplish this, interim releases of data (e.g., after completing the 5 largest donors) should be provided and incorporated directly into the AMP for country ownership and visualization.

Interim visits to country (if necessary)

For countries with large portfolios, or where progress in obtaining documentation from donors is slower than anticipated, interim visits to the country are advisable to ensure ample progress toward agreed-upon milestones – this is critical for maintaining the momentum and enthusiasm of the initiative.

Wrap-up mission and beginning of sustainability phase

After geocoding the existing AMP portfolio, a wrap-up mission should take place to promote the data locally, ensure seamless transition to government maintenance of the dataset, and provide trainings to line ministry and donor staff, CSOs, and other relevant groups (as defined in the kickoff mission) on how to use the data to improve their decision-making, division of labor, business processes and software applications, and to put the data to use in new and exciting ways. This sustainability phase should also include detailed documentation of lessons learned, applications developed, and other information that can be used to inform similar work in other countries.

and maps at logical milestones (e.g., 25 percent of all projects geocoded, top 5 donors geocoded, etc.). Providing the data in an easy-to-use visual platform, organizing local events (e.g., hackathons, workshops, etc.), and providing the data as quickly as possible and with frequent updates are three ways in which local uptake can be encouraged. This local uptake is crucial for demonstrating to the government and DPs the demand for an up-to-date, publicly available dataset.

Analytical Prospects and Challenges

Ultimately the usefulness of the Malawi map will depend on the potential analytic applications. At first glance, most of the maps offer interesting stories that motivate important questions. Using the maps to raise questions for research and planning is an appropriate use indeed. Basic analysis is also crucial at this point, as it will enable an understanding of the strengths and weaknesses of the data as well as lessons that might be learned. But any more sophisticated analysis needs to exercise caution in the inferences made, for a number of reasons:

Incomplete Data: Although this initiative represents the most comprehensive effort to date at mapping activities sub-nationally, it is still a challenge to ensure the maps represent the full universe of activities. The data are incomplete particularly with respect to *donor comprehensiveness*. Although the Malawi Open Aid map is groundbreaking, in that so many donors provided full documentation, a few donors are missing nonetheless (such as DANIDA, the Danish Aid Agency) either because they do not report through AMP or their activities are not well captured in reporting systems. Thus, analytical efforts need to be aware of the missing aid information, even if it represents a fairly small proportion of overall aid.

Another challenge stems from gaps in information on disbursed (versus committed) aid amounts, as well as data on implementing partners. Inevitably, as projects move from plan to implementation, details can change. Objectives, locations, and spending amounts may shift. Real-time mapping efforts might endeavor to capture such information, in order to sustain the validity and credibility of maps and open aid generally. But the key insight here is that the information embedded in maps is only as good as the information embedded in donor aid project documents. Thus, better data collection and reporting needs to start earlier in the process, in terms of the consistency and depth of information captured in donor documents, and then follow the projects through their life-cycles.

Feedback: Coding for Malawi was based on full project documentation, but by third-party researchers without input from those originally or currently involved in the process of allocating and managing the aid. Moreover, the maps do not have a feedback mechanism, which could help provide clarifying information from a variety of stakeholders. Nor do the maps have a centralized accountability procedure to allow changes or updates. The methodology is robust to many concerns (i.e., double-blind coding and arbitration of every project prevents many errors), but for maximum accuracy, additional input will be necessary.

Currency: The maps posted on the CCAPS dashboard for Malawi are not actually fully current. The projects coded fall under the timeframe 1999–2011 and represent most of the aid to Malawi during that

time, though there is more sporadic coverage of the earlier years due to the lack of available project-level information needed for geocoding. But of course much has happened since that time. The Ministry of Finance, in partnership with Development Gateway, should begin to ensure the ongoing availability of project documentation and subsequent coding of the documents. Preferably, Ministry of Finance officials should update their data management plan to incorporate geocoding into their existing workflow of AMP updates so that the maps can remain current. For some purposes, real-time maps are not crucial. For example, studies might conduct a historical analysis, which may make allowance for the brief time lag. But for any research or analysis for decision-making that hopes to be fully current, analysts need to recognize the limitations in the current process. Likewise, for further historical analysis, it would be necessary to find archived project documents. However, it is not clear where—or if—these project documents exist, particularly across all the donors who have historically been active in Malawi.

Inference: The maps have generated much attention and a number of efforts to interpret patterns of aid allocation and effectiveness. There is a real risk of inferring the wrong lessons from the maps, however. It is important that analysts understand the challenges with missing aid information, the lack of any tracking of government spending, as well as challenges with outcome data. Analysts should thus use these maps to begin the process of identifying lessons learned, but reserve judgment about any more conclusive inferences.

The key caution here is to avoid drawing quick inferences from simple maps. For example, there may be very good reasons that we see a lack of aid in some locations coupled with what appears to be an oversaturation in others. What may appear to be areas of aid neglect may actually be areas already well served by government, NGO or private sector resources, or areas of prior aid. Simply put, we cannot—or should not—readily presume that we know the reasons for or the implications of certain patterns of aid allocation.

We thus encourage analysts to use the maps as a way to ask pressing questions about aid allocation and effectiveness, rather than draw final conclusions. That said, many data efforts are incomplete; research and policy need to progress. Only through rigorous analysis will we fully learn the strengths and weaknesses of the data. Data analysis and planning should therefore move forward, but cautiously.

Political and economic challenges: As these data (and much other development data) become available, we will begin to learn more about the associated political sensitivities. At this stage, such challenges are not yet understood. Data can be quite political, and we know very little about why some donors may be reluctant (or unable) to provide data on the front end or how data will be used on the backend. It is unclear how this process will unfold as we move forward from mapping to analysis and policy insights. Any analysis will have implications for the donors as well as the government. The effort should highlight the virtues of the aid process, but will undoubtedly draw attention to significant shortcomings that could be consequential for sustaining data collection and mapping efforts.

Impact and Use of Maps: We do not have a great sense of whether and how the maps will actually improve upon existing allocation and coordination practices. A robust impact assessment will be crucial to understand how the maps will be received and used, as well as improved.

It should be noted that there is significant heterogeneity in who will use the maps, and we know little to date about how users will do so. We tentatively see open aid maps as useful to four broad sets of actors. First, government ministries within recipient countries may use the maps to track aid distribution. Most relevant, ministries of finance and planning will want to track aid for the purposes of understanding how much aid is flowing into the country as well as to plan their own activities. In addition, line ministries (such as the Ministries of Agriculture, Health, and Education) may find the maps useful in sectoral budget planning and program coordination. Second, aid donors may use the maps to track their own activities and those of other donors to plan future work or monitor existing work. There may be a need to use maps both at donor headquarters as well as within donor country offices for various operational, planning, communication, and transparency purposes. Third, as citizen-engagement activities continue to increase, we expect that some individuals within countries may use the maps to understand where aid is distributed, how it affects their community or industry, and how they can leverage open geographic data to develop new products and tools. Finally, scholars will want to understand the allocation of aid, along with its effects on a variety of development outcomes. The diverse set of constituents and end users underscores the need to build in feedback loops not only to enhance accountability and learning in aid, but also to ensure that the means through which we provide information on aid, such as maps, do in fact serve the purposes of increasing transparency and empowering stakeholders.

Pragmatic Challenges: Finally, it is increasingly imperative that we evaluate how and how well maps are used. Many maps, when capturing a great deal of information, can easily become dense, difficult to read, and sometimes confusing. This undermines the intended effect of maps, which is to make information on aid more accessible and digestible to multiple audiences. Moreover, there are technical challenges to accessing and using maps, especially in developing countries. Sophisticated data dashboards require internet connections and high bandwidths, and computers or smart phones. Moreover, the best use of maps, including the integration of other datasets and construction of baselayers, may require knowledge of and access to other data sources and in some cases basic GIS abilities.

Next Steps

In the case of Malawi, we envision several next steps in the open aid initiative. *Local “data literacy” workshops are critical to stimulating a broader uptake* of the maps and analytics. This will include an intense reengagement with the government and other local stakeholders and comprehensive software upgrades. We will *conduct a robust evaluation*, possibly through a randomized control trial or field experiment to discern the conditions under which visual analytics will facilitate budget planning, resource allocation, aid accountability and monitoring and evaluation. We will then *promote these results in several global initiatives*.¹⁹ Finally, we hope to *replicate the Malawi work* in other countries in collaboration with the Open

19. Global venues and initiatives include:

OGP: Open Government Partnership, <http://www.opengovpartnership.org/>

IATI: International Aid Transparency Initiative, <http://www.aidtransparency.net/>

EITI: Extractive Industries Transparency Initiative, <http://eiti.org/>

GIFT: Global Initiative for Fiscal Transparency, <http://fiscaltransparency.net/>

Aid Partnership and the AidData Center for Development Policy, which is supported by a five-year Higher Education Solutions Network collaborative partnership with the United States Agency for International Development.

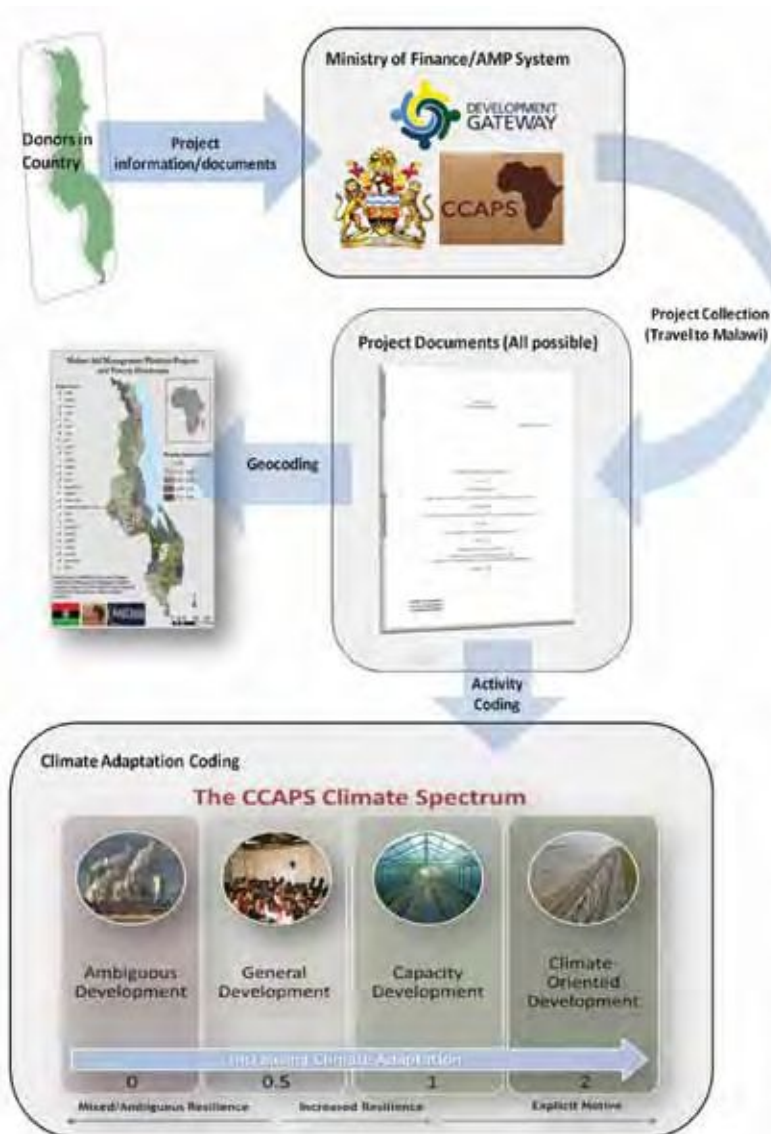
Like the World Bank's seminal Mapping for Results initiative, the *Malawi Open Aid Map provides a powerful "roadmap" for future mapping efforts* within the international aid community. Certainly, moving from this proof of concept to provide a sustainable, comprehensive approach to aid mapping at the global level requires significant investment and application of the lessons learned to-date. Yet in many ways, the genie is out of the bottle. Like most technological revolutions, the development and application of mapping for international development will not easily be undone, and we can expect that open aid mapping will be at the heart of the international aid transparency movement in the years to come.

There are, to our minds, three key steps we can take now to build on the constructive lessons from the Malawi pilot map and move forward in the Open Aid movement. First, the importance of *mapping should be further demonstrated to multiple constituencies* to make mapping efforts viable, sustainable, and scalable. This is feasible right now by providing clear examples of how aid maps can be used not only for research purposes, but also for budget planning and development management in-country by governments and local partners. For example, the initial launch of the Mapping for Results maps in 2010 forced difficult but constructive conversations to occur within the World Bank itself about how project locations were being determined and tracked. As a direct result, the Africa Region department now requires the tracking of component and activity locations in all projects. Furthermore, in Malawi, as a result of the Malawi pilot maps, donors are working with the Government to create more robust donor coordination working groups, and plan to use updated maps to evaluate potential duplication or fragmentation of efforts. Demonstrating and diffusing these positive outcomes will be an essential next step in building momentum around open aid mapping.

Second, insofar as aid is only one source of funding for development activities, it will be important to *integrate mapping and tracking of other forms of development resource flows*, such as government budget, NGO activities, foreign direct investment, and philanthropy from private foundations. In other words, "comprehensive resource mapping" is an ideal goal. But these funding flows will themselves need to become more open and methodologies will need to be developed and rigorously tested to ensure that such maps accurately and fully capture all resources in manner that allows for comparability across sectors and funders.

Third, and finally, open aid mapping provides exhilarating possibilities for enhancing the transparency, accountability, and effectiveness of international development aid and contributing greatly to what we know about what works and does not work in development. We need to *embrace global initiatives and standards*, such as those found in the Open Government Partnership (OGP) and IATI to make more data publicly available. Moreover, we should strive to better understand through rigorous evaluation techniques, how improved aid transparency, in the forms of open aid maps, directly contributes to aid accountability and effectiveness. Demonstrating this broader impact of open aid mapping will not only elicit support for mapping work, but more critically will sustain and build upon the broader goals of the Open Development movement.

Appendix A: CCAPS Climate Aid Coding Methodology



Appendix B: Donors in Malawi's Open Aid Map

African Development Bank
Australian Aid
Arab Bank for Economic Development in Africa
Canadian International Development Agency
United Kingdom's Department for International Development
European Union
United Nations Food and Agricultural Organization
Flemish International Cooperation Agency
German Agency for International Cooperation
Global Fund
Icelandic International Development Agency
International Fund for Agriculture Development
IrishAid
Japanese International Cooperation Agency
Kreditanstalt für Wiederaufbau
Kuwait Fund
Multi-Donor Trust Fund
Norwegian Agency for Development Cooperation
OPEC Fund
Republic of India
Saudi OPEC Funds
UNAIDS
UNDP
UNESCO
UNHCR

UNIDO
US CDC
USAID
WHO
World Bank
World Food Program

Appendix C: List of Interviews and Meetings

Interviews conducted by the CCAPS and Development Gateway Teams
March 2011–January 2013

March 2011

Irish Aid

Vincent O’Neil, Head of Development Coordination

Innovations for Poverty Action

Niall Keleher, Country Director

Joint United Nations Program on HIV/AIDS

Patrick Brenny, Country Coordinator

International Food Policy Research Institute

Monica Fisher, Research Fellow

CARE

Chrispin Magombo, Program Director for Food Security/Economic Development, Director of Food Security, Regional Program Coordinator

GTZ

Uta Borges, Country Director

European Commission

Enrica Pellacani, Head of Rural Development and Food Security

Japanese International Cooperation Agency

Godfrey Kapalamula, Senior Program Office

Japanese International Cooperation Agency

Michael Malewezi, Program Officer, Assistant Resident Representative

Malawi Ministry of Finance

Aaron Batten, Oversees Development Institute Economist, Malawi Ministry of Finance

Oversees Development Institute Economist

U.S. Agency for International Development

Stephen Raphael Mwale, Governance Program Management Specialist

Karolyn Kuo, Democracy and Governance Officer

Mary Ng'ambi, Development Outreach and Communications Specialist, Project Management Specialist

Norwegian Agency for Development Cooperation

Marita Sorheim-Rensvik

United Nations Development Program

Jan Rijpma, Assistant Resident Representation, Environment, Energy & Climate Change

Total LandCare (in Nkhosakota, Malawi)

Richard Museka, Zonal Manager

UK Department for International Development

Howard Standen, Climate Change Advisor

July–August 2011

United Nations Development Programme- Malawi

Ms. Ilaria Gallo, Programme Analyst for Climate Change, Environment, Energy and Climate Change Cluster, UNDP

Ms. Etta Rachel M'mangisa, Programme Analyst for Climate Change, Environment, Energy and Climate Change Cluster, UNDP

Project for Management of Adaptation to Climate Change (NORAD)

Haig Sawasawa, GIS Specialist, Total Land Care

Millennium Challenge Account- Malawi

Mr. Sam Kakhobwe, Coordinator and Point of Contact

Ms. Susan Banda, Environmental & Social Assessment Specialist

Kickstart UNDP/ATMS Project

David Anderson, Impact Evaluation and Monitoring, Nairobi, Kenya.

Project for Climate Change Adaptation in Africa (IDRC/DFID)

Ms. Miriam Kalanda-Joshua, Researcher, Chancellor's College

Coordination Unit for the Rehabilitation of the Environment (CURE)

Mr. Khumbo Kamanga, Programme Officer, CURE

Project for the Community Vitalization and Aforestation in Middle Shire (JICA)

Mr. Peter Moyo H. Mkwapatira, Project Manager

Blantyre City Assembly

Mr. Costly Chanza, Director of the Department of Town Planning and Estate Services

Civil Society Network on Climate Change (CISONECC)- Quarterly Meeting

Mr. Melton Luhanga, Chair of CISONECC & Director of Churches Action in Relief and Development (CARD)

Mr. William Chadza, Secretariat of CISONEEC & Director of Center for Environmental Policy and Advocacy (CEPA)

Ms. Agnes Lumphezi Banda, Humanitarian Response Officer, Danish Church Aid

Mr. Tamani Nkhono Mvula, National Coordinator for Civil Society Agriculture Network

Ms. Chisimpika Mphande, Communications Officer, CEPA

Mr. Ken Matekenya, Program Officer ActionAid

Mr. Prince Kapondamgaga, Officer in Farmers Union Malawi

James Kalikwembe, Evangelical Association of Malawi

Jacob Nyirongo, Norwegian Church Aid

Mr. Khumbo Kamanga, CURE

Sustainable Rural Growth and Development Initiative (SRGDI)

Mr. Maynard Nyirenda, Director of SRGDI

Reforestation of the Soche Mountain Forest Reserve (A GEF Small Grants Program)

Mr. Maynard Nyirenda, Director of SRGDI

Mr. Rex Falasi, Soche Forest Reserve Guard

Mr. Helmes Chimombo, Chairmen Chilobwe Village

Mr. Journey Chikumba, Member Chilobwe Village

Mr. Kelius Zaina, Member Chilobwe Village

Ms. Myra Magareta, Treasurer Somba Village

The Community Vitalization and Aforestation in Middle Shire (JICA)

Mr. Peter Moyo H. Mkwapatira, Project Manager
Ms. Glory Kalagho, Forestry Extension Officer, Traditional Authority Kapeni
Ms. Emira Msungeni, Chiwalo Village Head
Mr. Matambala, Lead Farmer in mPira village

Climate Change Adaptation in Africa (IDRC/DFID Project)

Mr. Lugani, Agricultural Crops Officer, Agriculture Development Department- Chikwawa
Mr. Mbosta Chilembwe, Agriculture Extension Officer, TA Maseya
Mr. Kennedy Brown, Chairman Mpaso Village
Mr. Steven Brown, Secretary Mpaso Village
Rafael Makadini, Treasurer Mpaso Village

Chikwawa District Agricultural Development

Mr. N. S. Maluwa, Chikwawa District Agricultural Development Officer (DADO)

Project for Improved Forest Management for Sustainable Livelihoods (EU)

Mr. Leonard Kamanga, Chikwawa District Forestry Officer

Project for Climate Adaptation for Rural Livelihoods and Agriculture (CARLA)- GEF NAPA Project

Mr. Peter Magombo, Environmental District Officer- Chikwawa

Mulanje Mountain Conservation Trust

Mr. David Nangoma, Programme Officer: Biodiversity Research and Monitoring

Mulanje District Agricultural Development

Mr. Noel Loimbani, Mulanje District Agricultural Development Officer (DADO)
Mr. Francis Mpembeka, Agricultural Crops Officer, Agriculture Development Department- Mulanje

Climate Change Adaptation in Africa (IDRC/DFID Project)

Mr. Francis Mpembeka, Agricultural Crops Officer, Agriculture Development Department- Mulanje
Mr. Namainja, Nessa Village Head

The Department of Climate Change and Meteorological Services

Mr. John L.Nkhokwe, Department Chief Meteorologist

Malawi Environmental Endowment Trust

Ms. Karen Price, Senior Projects Officer

Malawi Vulnerability Assessment Committee (MVAC), Ministry of Development, Planning and Cooperation

Mr. George Chimseu, MVAC Technical Advisor

Malawi's National Programme for Managing Climate Change

Ms. Jane Swira, Programme Manager- Climate Change

Environmental Affairs Department, Ministry of Natural Resources, Energy and Environment

Ms. Shamiso Nandi Najira, Principal Environmental Officer - EAD

Project for Climate Change Adaptation and Development Initiative (CC-DARE)

Dr. Richard Munang, Policy Strategist- Climate Change Adaptation & Development at UNEP

September 2011

Debt & Aid Coordination Unit, Ministry of Finance

Mr. Twaib Ali, Assistant Director, Debt & Aid Coordination Unit, Ministry of Finance

Ms. Chimvano Thawani, Debt & Aid Coordination Unit, Ministry of Finance

ICT Division, Ministry of Finance of Malawi

Ms. Chimvano Thawani, Debt and Aid Coordination Unit, Ministry of Finance

Mr. Michael Mkoko, ICT Division, Ministry of Finance

World Bank

Ms. Chrissie Kamwendo, Senior Operations Officer

Ms. Esther Lozo, Executive Assistant

Royal Norwegian Embassy

Mr. Augustin Chilkuni, Programme Officer

United Nations Development Programme

UN Staffers (UN Country Coordinator Representative's Office and UNCDF)

Mr. Sampson Msungama,

Department for International Development (DFID)

Mr. Alexander Stevens

Mr. Michael Mkoko, ICT Division, Ministry of Finance

Flemish International Cooperation Agency

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