
FINCLUSION LAB STATE OF THE DATA REPORT 2015





ABOUT FINCLUSION LAB

FINclusion Lab (www.finclusionlab.org) is an analysis and data visualization workshop designed to inspire the coordinated delivery of responsible financial services to underserved communities. Currently in beta development, FINclusion Lab is MIX's latest product offering. FINclusion Lab tools enable users to analyze the access, quality, and usage of financial services for excluded communities at national and sub-national levels. Transforming financial inclusion data into insight FINclusion Lab allows policymakers and financial service providers to optimize their strategies and measure progress towards national goals.



ABOUT THE MASTERCARD FOUNDATION

The MasterCard Foundation works with visionary organizations to provide greater access to education, skills training and financial services for people living in poverty, primarily in Sub-Saharan Africa. As one of the largest, independent foundations, its work is guided by its mission to advance learning and promote financial inclusion in order to alleviate poverty. Based in Toronto, Canada, its independence was established by MasterCard when the Foundation was created in 2006. For more information, please visit www.mastercardfdn.org or follow us on Twitter @MCFoundation.

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1.0

EXECUTIVE SUMMARY

As governments and financial service providers design financial inclusion strategies, they increasingly seek good quality data to answer questions around supply and demand for financial services. Improving both data quality and the regularity with which it is gathered has thus emerged as a priority issue for financial inclusion practitioners, donors, and policymakers around the world.

While the Global Findex and the IMF's Financial Access Survey are beginning to fill the gap in national-level measures of financial inclusion, FINclusion Lab aims to address the subnational aspects of measuring a country's progress towards financial inclusion, incorporating state- and district-level information to provide a more granular picture of where financial inclusion is surpassing or falling behind the national average. Including these geo-spatial components of both supply and demand for financial services provides a nuanced picture of how market characteristics may influence the types or relative numbers of financial service providers present in a given geographic area. It also allows the providers themselves to more accurately assess demand for services and can inform new products or delivery channels.

For more than three years MIX has engaged with hundreds of stakeholders to better understand the types of questions that different actors are trying to answer in order to increase financial inclusion. The questions range from: *How does geographic proximity impact usage of financial*

services? to How effective are non-traditional providers in increasing access to financial services in rural areas?

FINclusion Lab, MIX's financial inclusion data workshop, hosts data visualizations and analytics that seek to answer these questions at a subnational level in 20 countries. During our initial data discovery phase MIX uncovered a large quantity of non-standardized data on access (primarily location of cash-in, cash-out points) and a more limited supply of data on usage and quality. Each country shows a unique scenario of data ranging from a regulator in Peru that provides monthly data on access and usage of financial services at

“FINCLUSION LAB AIMS TO ADDRESS THE SUBNATIONAL ASPECTS OF MEASURING A COUNTRY'S PROGRESS TOWARDS FINANCIAL INCLUSION, INCORPORATING STATE- AND DISTRICT-LEVEL INFORMATION TO PROVIDE A MORE GRANULAR PICTURE OF WHERE FINANCIAL INCLUSION IS SURPASSING OR FALLING BEHIND THE NATIONAL AVERAGE.”

a subnational level, to regulators in Africa that currently gather little, if any, geo-coded data. As a result, MIX employed a variety of tactics, such as web-scraping and stakeholder outreach, to address the data gaps and provide a comprehensive baseline measurement of financial inclusion in each country.

1.0

MIX observed many commonalities in the types of data used to measure financial inclusion, including both formal and informal channels, and alternative mechanisms such as agent and mobile banking. Each country was unique, however, in the types of data currently gathered and shared with the public. As a result, FINclusion Lab's online data workbooks vary between countries in terms of the type and granularity of data displayed. Local taxonomy was also preserved in an attempt to more effectively serve local stakeholders. These differences are highlighted in comparative charts throughout this report.

As stakeholders begin to address some of the data and measurement gaps in their countries, MIX's data quality matrix (see Tables 1 and 2) highlights the challenges currently impacting a country's ability to measure financial inclusion. Some examples include lack of market coverage, such as missing

mobile money agents or cooperatives; timeliness, i.e., outdated census data; geographic precision, such as the lack of X/Y coordinates; and geographic accuracy, including inaccurate addresses or discrepancies between place names in the data and place names in the geographic shape file.

This first data scoping exercise revealed some important lessons both in terms of which data is currently available across varying countries and continents and the importance of building more robust and regular financial inclusion measurement systems. With data and measurement increasingly valued in the global quest for financial inclusion, there is an opportunity to support local stakeholders in building sustainable data collection and management systems that promise a systematic means to diagnosing the most pressing barriers to financial inclusion.

2.0 INTRODUCTION

Financial inclusion initiatives increasingly feature accountability components that require sound data collection and reporting. To determine if a country is making adequate progress towards its financial inclusion goals, high quality data on access and usage of financial services is necessary. Improving data quality has thus emerged as a priority issue for financial inclusion practitioners, donors, and policymakers around the world.

Financial inclusion data can be used in multiple ways: by national governments to track national or regional progress, or to identify potential challenges and solutions in expanding financial inclusion; by financial service providers to understand new markets or options for new products or delivery channels; and by donors to more effectively target investments.

A number of high-profile efforts are currently underway to improve the quality of financial inclusion data. The Alliance for Financial

A NUMBER OF HIGH-PROFILE EFFORTS ARE CURRENTLY UNDERWAY TO IMPROVE THE QUALITY OF FINANCIAL INCLUSION DATA.

inclusive financial policies in developing countries, has created a Financial Inclusion Data Working Group (FIDWG) dedicated to promoting and sharing information on the topic of financial inclusion measurement.

Inclusion (AFI), a network of financial inclusion policymakers from more than 90 countries working together to advance the adoption of

FIDWG's ultimate goal is to develop a common framework for measuring financial inclusion, including components and indicators, and to share lessons learned. The Global Platform for Financial Inclusion (GPFI), a platform for G20 members and other interested countries, announced its *Basic Set of Financial Inclusion Indicators* in 2012, which intended to capture three aspects of financial inclusion: access, usage, and quality.

Data sources for financial inclusion remain limited, however. Since 2012 the World Bank has published the Global Findex, a demand-side data source that collects information on several financial inclusion indicators for 148 countries. Similarly, the FinScope and FinAccess surveys provide a nationally representative perspective of the demand side of financial services - primarily in African markets. Many AFI member countries are also implementing their own nationally-representative demand-side surveys.

On the supply side there are numerous initiatives, such as GSMA's efforts to provide data on mobile money deployments. However, few take a holistic approach, combining demand- and supply-side indicators to present a comprehensive, subnational picture of financial inclusion in any given country. The Bill & Melinda Gates Foundation is supporting this effort via the FSP Maps project. FINclusion Lab, launched in May 2014 and supported by the MasterCard Foundation, is MIX's contribution to closing this critical data gap.

3.0 WHAT IS FINCLUSION LAB?

FINclusion Lab is an analysis and data visualization workshop designed to inspire the coordinated delivery of responsible financial services to underserved communities. The online platform (www.finclusionlab.org) offers dynamic views through dashboards, charts, maps, and matrices, allowing users to customize their data analyses in ways that respond to their unique financial inclusion questions. Data acquired for FINclusion Lab flows through a multi-step process, beginning with data gathered from multiple trusted sources, followed by data cleansing, geo-coding, data standardization, and modeling. Unlike most data

UNLIKE MOST DATA SOURCES WHICH ANALYZE FINANCIAL INCLUSION AT THE NATIONAL LEVEL, FINCLUSION LAB TAKES A SUBNATIONAL APPROACH.

sources which analyze financial inclusion at the national level, FINclusion Lab takes a subnational approach by gathering data at the first, second, and, if possible, third administrative units in a given country. This granular picture of access to and usage of financial services allows local decision makers to devise more tailored solutions to specific

geographic areas within a country. Some examples include supporting expansion to underserved areas through new policy or programs; identifying new markets or delivery channels for expansion; targeting areas for financial literacy programming; or detecting saturated markets and potential risks of over-indebtedness. The present document builds from this experience and provides a detailed overview of the “State of the Data”, as well as principal challenges associated with its collection and use.

4.0

DATA QUALITY & VALIDATION

A fundamental piece of any quality data infrastructure is a standardized set of precise data definitions. FINclusion Lab’s “data catalog,” which identifies all data elements and describes their content, coding options, and format, is available through the Data Catalog tab. All available datasets on the platform can be downloaded from this tab. Users can also find a detailed “About the Data” report for each country, with a complete explanation of the data included and its source, and a rating scale that evaluates the quality of each dataset based on a standard set of criteria.

FINclusion Lab uses a rating system to monitor data quality for each of the workbooks published. Table 1 is an example of the data quality matrix used for the Malawi workbook. Table 2 explains how each rating is measured.

Within any given country the collected data relevant to physical access to financial products and services varies across types of institutions. The best data collection efforts are likely to be found through the principal financial regulator (Central Bank or Financial Superintendency). Data collection by microfinance institutions or credit unions tends

TABLE 1 - DATA QUALITY MATRIX - RATINGS FOR EACH DATA SOURCE.

Data Source	Market Coverage	Timeliness	Geographic Precision	Geocoding Accuracy	# Access Points
COMMERCIAL BANKS	★★★★★	★★★★☆	★★★☆☆	★★★★☆	210
SACCOs	★★★★★	★★★★☆	★★★☆☆	★★★★☆	55
SACCOs MUSCCO	★★★★★	★★★★☆	★★★☆☆	★★★★☆	26
MFI	★★★★★	★★★★☆	★★★☆☆	★★★★☆	155
CENSUS DATA	★★★★★	★★★☆☆	★★★☆☆	★★★★☆	N/A

4.0

to be more sporadic. The availability and quality of data also varies, as might be expected, according to the income or level of development of the country. Less wealthy countries, including most of Africa and some smaller Latin American and Asian countries, tend to have limited data.





Among the key data quality problems associated with financial access points are:

- **Non-standardized data definitions:** Data providers use different definitions for the same elements (e.g. ATM, branch, etc.).
- **Lack of availability of data:** Data required does not exist or is not readily accessible.
- **Inconsistency:** Not all data providers report the same data elements.

- **Inconsistency over time:** The same data element is calculated, defined, and/or reported differently from year to year. Longitudinal inconsistency creates the potential for inaccurate trend analysis.
- **Data entry errors:** Inaccurate data.
- **Lack of timeliness:** Data is reported too late. Rushed reporting can often lead to poor data quality, while reporting that is delayed months or even years limits data utility.

Socio-economic and contextual data is also subject to quality problems. For example, in our context, low levels of granularity can present a problem.

TABLE 2 - DATA QUALITY GUIDE

Scale	Market Coverage	Timeliness	Geographic Precision	Geocoding Accuracy
QUESTIONABLE 	Statistics not available to confirm accuracy	Unknown date of production	Admin 1 (often state or province)	<50% of records match shapefile place names
NEEDS IMPROVEMENT 	Self-reported results > 20% different from trusted source (regulator or market study)	< 3 Years Old	Admin 2 (often County or District)	<75% of records match shapefile place names
GOOD 	Self-reported results < 20% different from trusted source (regulator or market study)	< 1 Years Old	Admin 3 (often municipality or sub-location)	>75% of records match shapefile place names
BEST 	Data provided by a public regulator	Monthly updates are provided, allowing time-series	Latitude and Longitude (XY) Coordinates	XY coordinates are provided by GPS locators

5.0

COUNTRIES INCLUDED IN FINCLUSION LAB

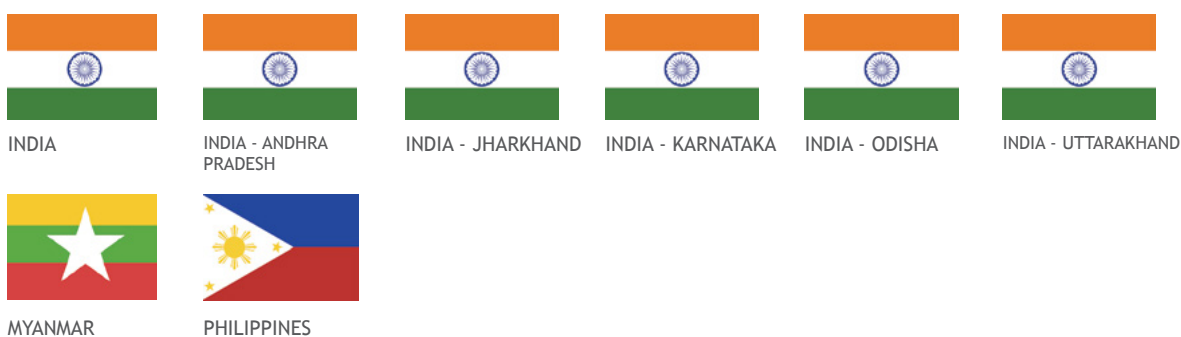
Currently, FINclusion Lab contains information and data on financial inclusion in 20 countries. Initially, MIX made its most concentrated data collection effort in Africa, where accessing information on financial inclusion is often particularly complex. As shown in Table 3, FINclusion Lab now includes data for 14 countries in Africa, 3 countries in Latin America, and 3 countries in Asia; additionally, workbooks are available for 5 Indian states, which provide additional data on agriculture and business correspondents. Each country's data is organized into standardized country workbooks that permit easy navigation.

TABLE 3 - COUNTRIES WITH DATA AVAILABLE ON FINCLUSION LAB

AFRICA



ASIA



LATIN AMERICA



6.0

DEFINING ACCESS POINTS FOR FINCLUSION LAB

Distribution of financial service access points within a country is among the most valuable data that can be accessed through FINclusion Lab. Access to financial services varies both in terms of the products and services offered as well as the type of institution distributing them. Most countries contain institutions operating under varying degrees of government regulation, including those with a high-degree of informality and little or no supervision. AFI defines “access point” as follows:

“An access point is any physical entity where an individual can perform cash-in and cash-out transactions with a regulated financial institution, such as bank branches, any type of banking office, and ATMs, agents and POS devices that perform cash-in and cash-out transactions.”

FINclusion Lab’s focus is practical and does not concentrate on establishing a common definition among access points; a wide range of entities and services are considered based on the information available. The ultimate goal is to provide data and tools that facilitate the advancement of financial inclusion. We take a broad view of the realities of financial inclusion to support all users as they approach and solve challenges in their unique context. People traditionally acquire the majority of their financial products and services at a bank branch, but in many countries a range of formal, semi-formal, and informal actors play an important role in the provision of financial services. Technology has expanded this frontier and

permitted a surge of new distribution models for financial products and services (especially in terms of payment systems). ATMs, point of service (POS) devices, mobile phones, and the expansion of the internet have fostered innovation in electronic distribution channels beyond bank branches.

The depth and diversity of products and services that one can find varies considerably depending on the type of access points available. A bank office in which one can open a savings account, contract an insurance policy, apply for credit, pay an electric bill, and send money to a family member is not the same as a post office that only offers money orders. Similarly, barriers to access are very different depending on the type of access point and the profile of the client. In spite of their ample portfolio of financial products and services, some entities do not serve people who work outside of the formal economy. It is difficult to establish a clear line that defines precisely what is and what is not an access point for financial products and services. The lack of available data, especially in regards to access points for non-regulated institutions, considerably complicates the development of a detailed map that illustrates the financial access situation in a given country. We have opted for an inclusive definition of access points, adjusted to the reality of each country and the information available. Information is organized in terms of the type of institution and the type of access point to facilitate the filtering of information based on the definition of access point that each user wants to employ at a given time.

6.1 ACCESS POINTS INCLUDED IN FINCLUSION LAB

As of July 2015, FINclusion Lab contains detailed information on the location of almost 700,000 financial product and service access points in 20 countries (see Table 4). Information on access points is principally categorized by the type of institution, which permits dynamic filtering of the information. As previously mentioned, the type of products offered in each access point varies based on the country and the type of institution.

6.1

TABLE 4 - NETWORKS AND NUMBER OF ACCESS POINTS AVAILABLE ON FINCLUSION LAB BY COUNTRY AND TYPE OF INSTITUTION

COUNTRY	MOBILE MONEY AGENTS	BANK AGENTS	ATMS	COMMERCIAL BANKS	MFI / MFI BANKS	SACCOS	RURAL BANKS	OTHER FINANCIAL INSTITUTIONS	PUBLIC SECTOR BANKS	POST OFFICES	BUS STANDS	INSURANCE AGENTS	FX COMPANIES	SUSU COLLECTORS	PAWNSHOPS	TOTAL
Benin	119			141	939					83						1,282
Bolivia				604		741		330								1,675
Burundi			75	172	264					134						645
Ethiopia	27			1,570								261				1,858
Ghana	3,373			753	38	450	583	362						461		6,020
Guatemala																N / A
India			160,055	18,307	6,919		18,186		82,394	154,822						440,683
Ivory Coast	847			471	54	272										1,644
Kenya	45,261	7,052	503	1,221	500	706				93	613					55,949
Malawi				210	155	81										446
Myanmar				354	591	142			499						1,796	3,382
Nigeria	4,222		777	5,184	1,378	937				935	2,510					15,943
Peru		26,381	8,209	1,788	134	365	134	1,714	474							39,199
Philippines			13,619	6,949	530	2,647	2,206	17,927								43,878
Rwanda	299			273	107	430						192	148			1,449
Senegal	923			301	582					39						1,845
South Africa				9,007		29		27,255	215	1,765						38,271
Tanzania				367	478	1,084				202	403					19,085
Uganda				194	305	406		36								20,343
Zambia				322	189				27	142						1,232
TOTAL	89,976	7,052	175,944	46,255	13,287	7,152	20,975	45,580	83,135	158,215	3,526	453	148	461	1,796	653,955

6.1.1

REGULATED FINANCIAL INSTITUTIONS: COMMERCIAL BANKS, RURAL BANKS, PUBLIC SECTOR BANKS AND OTHER REGULATED FINANCIAL INSTITUTIONS

Information on the location of commercial bank branches and entities authorized to take deposits from the public (thus regulated by the central bank or banking superintendency) is available for all countries included in FINclusion Lab. In the majority of countries, the opening of a bank branch is subject to supervision by the regulator; a bank that wants to open a new branch must solicit prior authorization or inform the regulator of any branch opening or closing. In general, the regulator has detailed information on the locations of all bank branches within the country. However, this information is not always organized in an electronic format nor is it necessarily information that the public can easily access online.

The websites of central banks and superintendencies are an important source of information for FINclusion Lab and are typically the starting point for the identification of regulated financial entities. The majority of countries' superintendencies have an exhaustive list of regulated financial entities authorized to operate. Nevertheless, the number of branches or detailed locations are not offered in all cases, which makes it difficult to understand the reach of a financial entity within a territory. In some

cases the regulator publishes this information in its annual report or in a special report on financial inclusion, but in many countries it is not common practice to provide data disaggregated to the level of bank branches. In general, financial system regulatory authorities have principally focused on guaranteeing the stability of the financial system, and it is only recently that they have begun to introduce financial inclusion as a public policy objective. For countries in which information on the branches of prudentially regulated entities is not available on the regulator's website, we collect information on branch networks in the territory using information reported by each of the financial entities' own web sites. Table 5 summarizes the availability of this information on regulator websites for each of the countries included in FINclusion Lab. In FINclusion Lab's Latin American and Asian countries (with the exception of Myanmar) the number and location of bank branches is easily accessed through regulator websites. However, in the case of the 14 African countries in FINclusion Lab, only Zambia offers detailed information on the location of supervised entity branches. Information on the location of branches of financial entities that are supervised by the

6.1.1

TABLE 5 - DATA ON BANK BRANCH LOCATIONS AVAILABLE ON THE REGULATOR'S WEBSITE

COUNTRY	LIST OF BANKS	BRANCH LOCATIONS
Benin	Yes*	No
Bolivia	Yes	Yes
Burundi	Yes	Yes
Ethiopia	Yes	No
Ghana	Yes	No
Guatemala	Yes	Yes
India	Yes	Yes
Ivory Coast	Yes*	No
Kenya	Yes	No
Malawi	Yes	No
Myanmar	Yes	No
Nigeria	Yes	No
Peru	Yes	Yes
Phillipines	Yes	Yes
Rwanda	Yes	No
Senegal	Yes*	No
South Africa	Yes	No
Tanzania	Yes	No
Uganda	Yes	No
Zambia	Yes	Yes

(*) Information from the Central Bank of West African States, a central bank serving the eight west African countries which comprise the West African Economic and Monetary Union (Benin, Burkina Faso, Guinea-Bissau, Ivory Coast, Mali, Niger, Senegal, and Togo)

central bank or the banking superintendency would be relatively easy for the regulator to publish and would permit a considerable improvement in the information on the distribution of physical access to financial products and services in a territory. In some countries (as in the cases of Peru and Bolivia) the regulator is conscious of the growing demand for information on financial inclusion and has developed potent tools for financial inclusion indicators that allow users to see in detail the location of different access points of supervised entities (see Box 1). Going one step further, the regulator could solicit the exact geolocation of new access points (GIS coordinates) from supervised financial entities, which would permit a more precise map of financial access in the whole territory.

Information on the location of branches of financial entities that are supervised by the central bank or the banking superintendency would be relatively easy for the regulator to publish and would permit a considerable improvement in the information on the distribution of physical access to financial products and services in a territory. In some countries (as in the cases of Peru and Bolivia) the regulator is conscious of the growing demand for information on financial inclusion and has developed potent tools for financial inclusion indicators that allow users to see in detail the location of different access points of supervised entities (see Box 1). Going one step further, the regulator could solicit the exact geolocation of new access points (GIS coordinates) from supervised financial entities, which would permit a more precise map of financial access in the whole territory.

In countries where it has not been possible to obtain data on the location of bank branches from the regulator, we have used GIS data gathered by

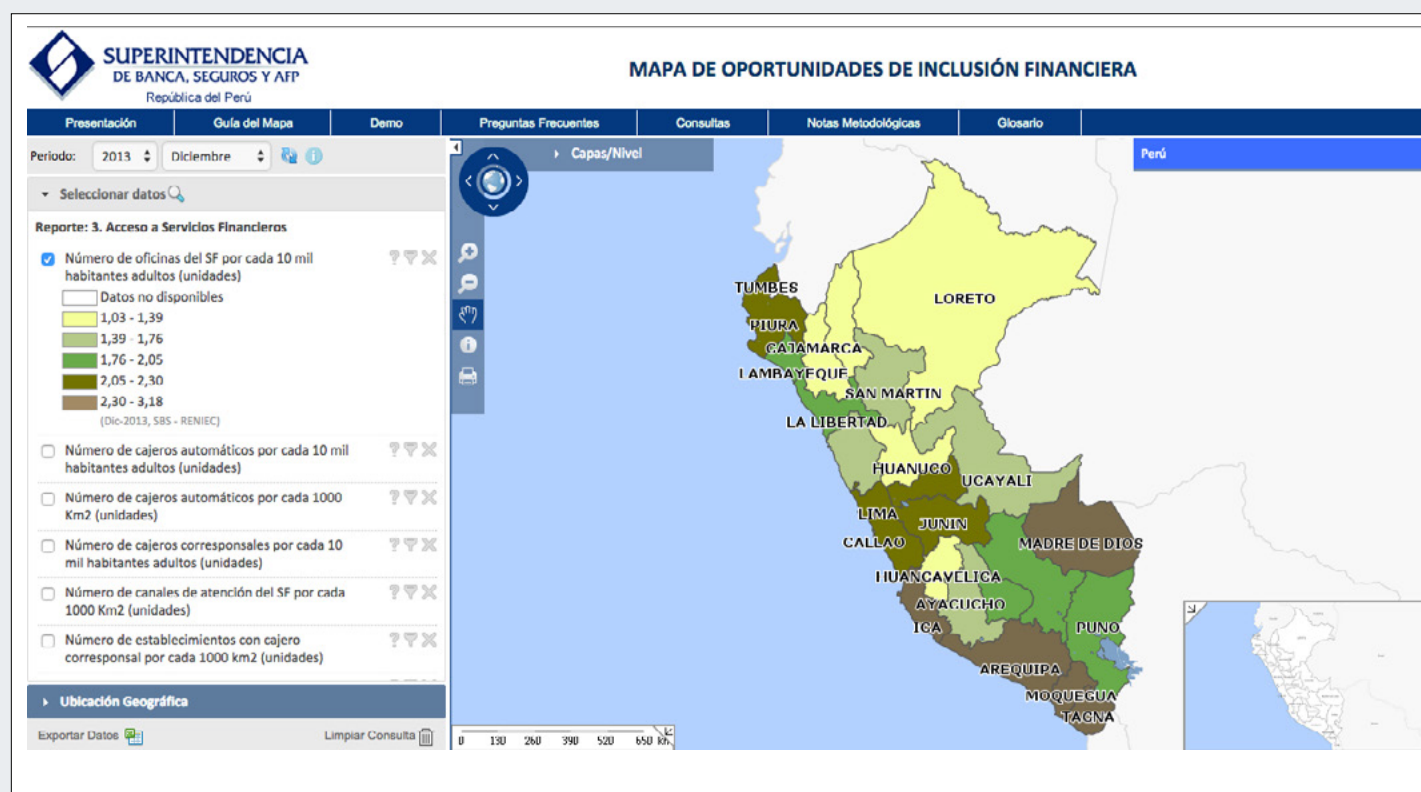
6.1.1

the Bill & Melinda Gates Foundation (in the cases of Kenya, Nigeria, Tanzania, and Uganda, see Figure 1). For other countries the information has been manually collected through the web sites of each of the supervised entities.

In countries where it has not been possible to obtain data on the location of bank branches from the regulator, we have used GIS data gathered by the Bill & Melinda Gates Foundation (in the cases of Kenya, Nigeria, Tanzania, and Uganda, see Figure 1). For other countries the information has been manually collected through the web sites of each of the supervised entities.

Box 1 - Data on access points at subnational level for regulated institutions: The case of Perú and Bolivia

A. Peru. Financial inclusion opportunities map. Superintendencia de Banca, Seguros y AFP



6.1.1

Box 1 - Data on access points at subnational level for regulated institutions: The case of Perú and Bolivia
 B. Bolivia. Location of access points for licensed financial entities. Autoridad de Supervisión del Sistema Financiero.

miércoles, 19 de agosto de 2015 | Personalizar ▾ Mapa del sitio



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Depto	Ciudad	Nombre de la Entidad	Tipo Oficina	Nombre Oficina	Dirección	Teléfono	Fax	Encargado del Punto de Reclamo	Servicios Ofertados	Horario Lun-Vie	Horario Sab.	Horario Dom
COCHABAMBA	COCHABAMBA	Banco de Crédito de Bolivia S.A.	Sucursal	Sucursal Cochabamba	Calle Nataniel Aguirre esquina Calama S-0498	4175000	4175000	PINAYA TAPIA ANDREA GISELLE		Continuo de 09:00 a 16:00	Continuo de 09:00 a 13:00	
COCHABAMBA	COCHABAMBA	Banco BISA S.A.	Sucursal	Sucursal Central Cochabamba_300	Av. Ballivián N° 799 esq. Tnte. Arévalo paseo El Prado	(591-4) 4252722	4252721	DORIA MEDINA MARTINEZ CARLA	CTA.CTE., CTA.AHORRO, DPF: BS , USD, MVDOL, UFV, EUROS; CRÉ D. BISA HOGAR Y BISA AUTO, TA RJ. CRED Y DEB.; CRÉD. COM., PYMES, BANCA ELECT. E-BISA, C OM. Y VTA. MONEDA, BOLETAS GA RANTÍA, PAGO: PENSIONES COL., PLANILLAS, REMESAS, PROVEEDO RES, IMPUESTOS, GIROS.	Continuo de 09:00 a 16:00	Continuo de 09:00 a 13:00	
									Servicio de cobranza de telef onía fija (COMTECO) y telefon ía móvil			

In Peru (a) the SBS launched the Map of Financial Inclusion Opportunities in November 2014. This tool aims to facilitate the use of information to make decisions aimed at increasing financial service coverage, identifying business opportunities, and incentivizing research on financial inclusion from a geographical perspective. In a similar manner, in Bolivia (b), the ASFI has a tool that allows users to identify in detail different access points (branches, shared offices, windows, correspondents, ATMS, etc.) for entities supervised at the departmental and city level.

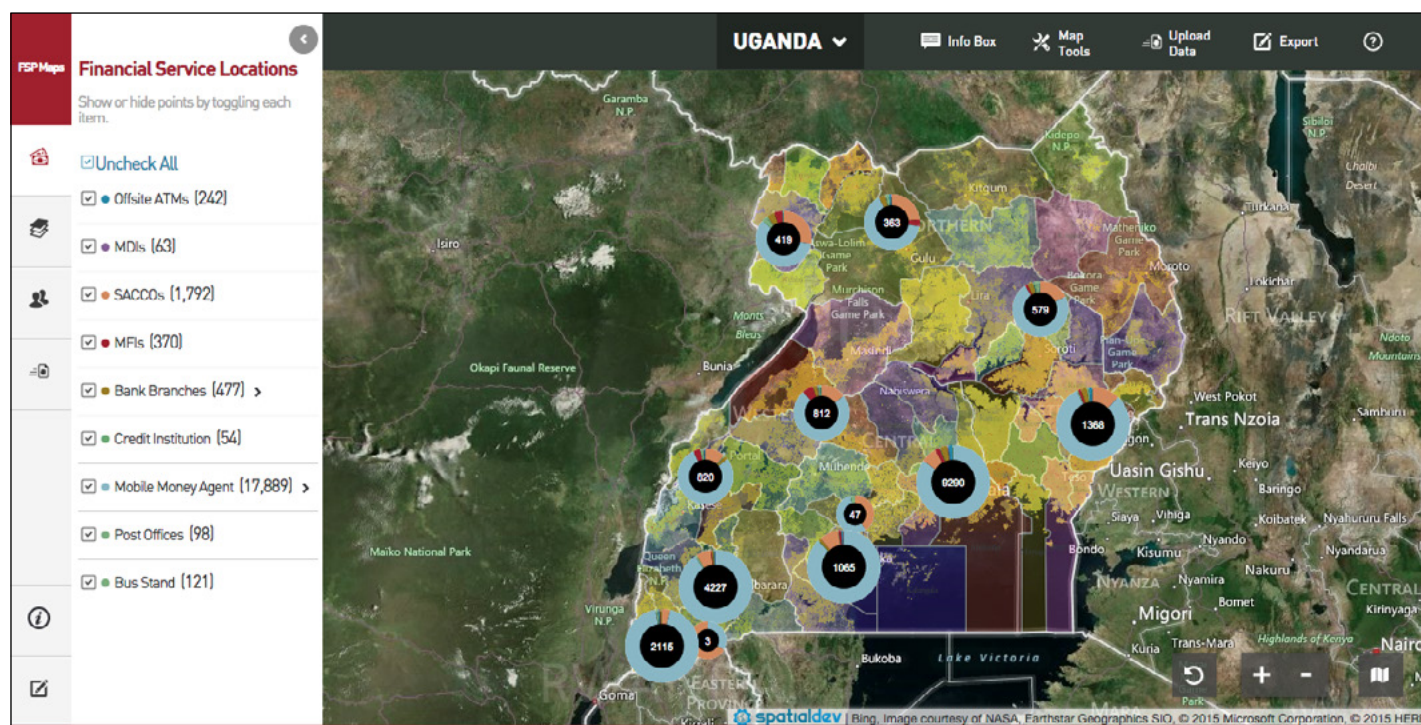
6.1.1

To the degree possible, MIX validates the data published on an institution's websites through comparison with other sources and, in the case of discrepancies, uses its network of local stakeholders to clarify the information.

Table 6 shows the origins of data on the location of branches of regulated entities in each of the countries included in FINclusion Lab. As we can see in the table, for the majority of African

countries the principal data source was self-reported information from the institutions' websites. This highlights the potential to improve the dissemination of information on the part of central banks in the region. In Latin America, often the availability of information is facilitated by the regulator and is hence more complete, providing the user with more granular location data of the branches of supervised entities.

FIGURE 1 - FSP MAPS: A BILL & MELINDA GATES FOUNDATION INITIATIVE TO MAP CASH-IN AND CASH-OUT POINTS IN BANGLADESH, KENYA, NIGERIA, TANZANIA & UGANDA



6.1.1



TABLE 6 - SOURCE OF ACCESS POINT LOCATIONS FOR REGULATED FINANCIAL INSTITUTIONS IN FINCLUSION LAB

CENTRAL BANK		FSP MAPS	BANK WEBSITES	
BOLIVIA	PERU	KENYA	BENIN	MYANMAR
BURUNDI	PHILIPPINES	NIGERIA	ETHIOPIA	RWANDA
GUATEMALA	ZAMBIA	TANZANIA	GHANA	SENEGAL
INDIA		UGANDA	IVORY COAST	SOUTH AFRICA
			MALAWI	

6.1.2 COOPERATIVES

Savings and credit cooperatives - or credit unions - serve groups that share some common bond; they work in the same business or sector, belong to the same church, or live in a particular community. They are entities governed by their own members in which individuals save and lend money among themselves. Savings and credit cooperatives principally serve salaried populations, but it is also common to find cooperatives in rural areas that serve micro-entrepreneurs or clients that work in the informal sector. In many countries there are hundreds or even thousands of savings and credit

cooperatives. They are typically very small in size and are, in some cases, supervised by the ministry of agriculture, the ministry of commerce, or other specialized government entity. Often savings and credit cooperatives are grouped in one or several federations that may take on a supervisory role or represent the sector.

There are few savings and credit cooperatives that are under prudential regulation on the part of the central bank or the banking superintendency. Normally only cooperatives that have reached a significant volume of savings or number of clients

TABLE 7 - SOURCE OF INFORMATION FOR DATA ON SACCOs ACCESS POINTS

COUNTRY	SOURCE OF INFORMATION	WEBPAGE
Benin	N / A	
Bolivia	Autoridad de Supervisión del Sistema Financiero	www.asfi.gob.bo
Burundi	Banque de la Republique du Burundi	www.brb.bi
Ethiopia	N / A	
Ghana	Ghana Co-operative Credit Unions Association	www.cuagh.com
Guatemala	N / A	
India	N / A	
Ivory Coast	Direction Générale du Trésor et de la Comptabilité Publique	www.tresor.gov.ci
Kenya	World Council of Credit Unions (Kenya Office)	www.woccu.org
Malawi	Malawi Union of Savings & Credit Cooperatives	www.muscco.org
Myanmar	N / A	
Nigeria	FSP Maps	www.fspmaps.com
Peru	Federación Nacional de Cooperativas de Ahorro y Crédito del Peru	www.fenacrep.org
Phillipines	Cooperative Development Authority	www.cda.gov.ph
Rwanda	National Bank of Rwanda	www.bnr.rw
Senegal	N / A	
South Africa	South African Reserve Bank	www.resbank.co.za
Tanzania	N / A	
Uganda	Ugandan Ministry of Trade, Industry & Cooperatives	www.mtic.go.ug
Zambia	N / A	

6.1.2

are subject to prudential regulation. Hence, the central bank does not have information for the vast majority of savings and credit cooperatives.

We have made an effort to incorporate information in FINclusion Lab on this type of entity to the degree possible; data sources for cooperatives have principally been credit union associations and federations, central banks, and governmental bodies that supervise cooperatives. Table 7 shows the data sources used to develop information in

relation to savings and credit cooperatives. For some countries, such as Senegal and Tanzania, many savings and credit unions are included generically as microfinance institutions.

The creation of an exhaustive and updated register of savings and credit cooperatives (SACCOs) continues to be an important challenge in many countries, due in large part to the large number of small entities in existence and limited resources for supervision.

6.1.3 MICROFINANCE INSTITUTIONS (MFIs)

There are also a large number of institutions in many countries constituted with diverse legal forms (societies, non-governmental organizations, foundations, and others) that offer financial services - principally credit - to low-income populations and micro-entrepreneurs in the informal sector. In some cases these microfinance institutions have grown and reached such a size that they have transformed into regulated institutions, such as in the case of Unguka Bank in Rwanda or Lap Microfinance Bank in Nigeria.

The majority of MFIs are not subject to prudential regulation, which complicates the development of a detailed record of all existing institutions. In some cases information is incomplete due to the difficulty of knowing the exact number of existing institutions or the impossibility of obtaining information on the location of the branch network of the identified entities. In the case of Ghana, information on MFIs included in FINclusion Lab comes from the Association of Financial Non-Governmental

FINCLUSION LAB INCLUDES MORE THAN 13,000 MICROFINANCE SERVICE POINTS ACROSS 20 COUNTRIES.

Organizations, which reports the location of the principal office of its 38 affiliated institutions, but does not provide information on other branches that these entities might maintain.

Given MIX's experience in data collection from microfinance institutions, its knowledge of the sector, and the fluid relationship that it maintains with various national and regional MFI networks, FINclusion Lab includes more than 13,000 microfinance service points across 20 countries. The role of microfinance networks and associations has been particularly important in acquiring detailed information on the location of the branch networks of this type of entity. This is true in the cases of Kenya, Uganda, and Peru, where AMFI-K, AMFIU, and COPEME have made very valuable information available to FINclusion Lab.

6.1.4 AUTOMATED TELLER MACHINES (ATMs)

**TABLE 8 - OFFSITE & ONSITE
ATMs DATA IN FINCLUSION LAB**

COUNTRY	OFFSITE ATMS	ATMS (ON/OFF SITE)
Burundi		75
India		160,055
Kenya	503	
Myanmar		354
Nigeria	777	
Peru		8,209
Phillipines		13,619
Tanzania	367	
Uganda	194	
Total	1,841	182,312

Automated teller machines (ATMs) do not constitute an integrated channel that allows global servicing of clients, but in many cases it is a channel that complements the branches, helping to decongest offices and increase the schedule in which clients can make withdrawals. In most countries, use of an ATM requires a plastic card with a magnetic band or chip that contains client and account data and serves as a means of identification. These cards, frequently associated with payment networks like Visa or MasterCard, also allow clients to use POS devices that belong to the same network.

The majority of ATMs are installed in branches of the same financial entity, but there are also a considerable number whose principal function is to serve clients without opening a new branch - these are called “off-site ATMs.” Strictly speaking, ATMs located in bank branches (despite increasing the number of hours of access) do not constitute new access points in new locations. Therefore, FINclusion Lab only displays data for off-site ATMs. In this way, the platform seeks to avoid duplication of access points and narrows the definition of access point to different locations, avoiding the complication of compiling different service points (dimensions like number of ATMs, number of human tellers, hours of operation, etc.) for each access point.

Making the distinction between an off-site ATM and an ATM located in a branch has been possible in Kenya, Nigeria, Tanzania, and Uganda with data from the FSP Maps project. In the cases of India, Myanmar, Peru, and the Philippines, we have data on ATM locations without the distinction between off- and on-site. For the remaining eleven countries, it has not been possible to obtain detailed information on the location of ATMs (see Table 8). Another electronic channel linked to the use of cards for the withdrawal of funds are points of service (POS) devices located in businesses that

6.1.4

accept cards as a payment method. Just as with an ATM, POS devices permit customers to access funds in their account to make payments, and in some cases even to make small withdrawals. Unfortunately, it has not been possible to obtain information detailed to the subnational level on POS devices in any of the countries we have analyzed. In some cases the regulator's annual report gives the number of points of service in the country and the number of cards, but there is no information regarding the location of these devices.

Another electronic channel linked to the use of cards for the withdrawal of funds are points of service (POS) devices located in businesses that accept cards as a payment method. Just as with an ATM, POS devices permit customers to access funds in their account to make payments, and in some cases even to make small withdrawals. Unfortunately, it has not been possible to obtain information detailed to the subnational level on POS devices in any of the countries we have analyzed. In some cases the regulator's annual report gives the number of points of service in the country and the number of cards, but there is no information regarding the location of these devices.

6.1.5 BUSINESS CORRESPONDENTS & MOBILE MONEY AGENTS

TABLE 9 - MNO AGENT NETWORKS INCLUDED IN FINCLUSION LAB

COUNTRY	# AGENTS
Benin	119
Ethiopia	27
Ghana	3,373
Ivory Coast	847
Kenya	45,261
Nigeria	4,222
Rwanda	299
Senegal	923
Tanzania	16,551
Uganda	17,802
Zambia	552
Total	89,976

Mobile Network Operators Included: MTN, M-BIRR, Orange, Celpaid, Moov, Safaricom, Airtel, Yu Cash, Tangaza, Yoban Tell, Airtelcash, Ezypesa, Mpesa, TigoPesa, Warid, M Sente, EzeeMoney, Zoon, Zamtel

Business correspondents or mobile money agents are retail outlets contracted by financial institutions or mobile network operators to process client transactions, which are conducted by staff from the retail outlet. In Africa, mobile network operators (MNOs) are increasingly active in promoting mobile money agents to facilitate cash-in and cash-out transactions related to mobile payments. Most mobile money transactions are related to payments and money transfer products promoted by MNOs, but there are emerging initiatives to promote other products such as savings, either independently or in cooperation with banks. In other parts of the world (particularly Latin America) banks have been more actively developing their own agent networks in a so-called “bank-led model”. The range of products offered revolves principally around payment and money transfer services (especially products promoted by MNOs) although financial institutions are increasingly using these service points to promote and contract new products.

Agent networks are developed very quickly and usually include hundreds or even thousands of businesses. Maintaining an updated census of their locations is complicated and, in general, MNOs do not share their agents’ locations. Despite having contacted MNOs on many occasions, it has not always been possible to get detailed agent lists for all existing networks. Nevertheless, we consider it important to include this information since it at least gives an idea of the presence of these service points and how agent networks are unfolding in the territory. Mobile money is transforming the landscape

6.1.5

of financial services in many developing countries, such as Kenya and Uganda. MIX hopes that in the future MNOs and other mobile money providers will more willingly share data in order to more accurately measure financial inclusion. In Table 9 we see the companies and countries for which it has been possible to identify the location of MNO agent networks. This information was obtained, in the majority of cases, from the websites of the MNO, so we do not have confirmation that it is updated or complete.

In addition to MNOs, banks are increasingly developing their own correspondent networks. In the cases of India, Kenya, and Peru, the main agent networks are related to banking entities. Particularly in the case of Peru, the regulator maintains a comprehensive record of all existing correspondent agents and makes this information public through its website, which facilitates the monitoring of the growth of this alternative distribution channel.

6.1.6 POST OFFICES

In several countries, post offices take advantage of their ample coverage to play an active role in the promotion of financial services for underserved populations. Post offices have offered money transfer and money order services for decades, but many are expanding to more sophisticated financial products (typically offered in partnership with other financial institutions). Nevertheless, there is a lack of systematic data collection on the role that postal services serve or could serve. To help close this gap, MIX included networks of postal companies in those countries where they have an actual or potential role in providing financial services. Data was collected directly from postal service websites, which usually have detailed location directories of their branches. Table 10 lists the countries and companies whose post office networks are included in the FINclusion Lab platform.

TABLE 10 - POSTAL OFFICE NETWORK

COUNTRY	COMPANY NAME	# OF BRANCHES
Benin	La Poste du Benin	83
Burundi	Régie Nationale des Postes	134
Kenya	Postbank Kenya	93
Nigeria	Nipost	935
Senegal	La Poste du Senegal	39
South Africa	PostbankSouth Africa	1,765
Tanzania	Tanzania Postal Bank	202
Zambia	Zampost	142
India	Postbank of India	154,822

6.1.7 OTHER ENTITIES: BUS STANDS, INSURANCE & FOREIGN EXCHANGE COMPANIES, SUSU COLLECTORS, & PAWNSHOPS

For some countries, we include information on other actors who play or have the potential to play a role in financial inclusion. Currently, in several African countries, bus stands (or motor parks as they are known in Nigeria) play a key role in the provision of informal financial services, principally through domestic transfers via bus drivers. An expansion of mobile money could provide a more central role for this kind of actor. In fact, some mobile money operators are already announcing partnerships with transport lines and transport workers. Bus stands are included as access points for the Kenya, Nigeria, and Tanzania workbooks; data for these locations was drawn from FSP Maps.

Insurance is without question an important financial product, although its distribution model is typically quite different from that of other financial products. Physical access to a branch plays a role, but often the distribution of insurance products is based on other commercial strategies (through companies or other organizations for risk pooling, individual traveling insurance agents, brokers, teams that go door-to-door, utility companies, call centers, etc.). Due to

the complexities of identifying all physical locations where insurance products can be purchased, data on insurance companies generally has not been included in FINclusion Lab. Ethiopia and Rwanda are the only countries for which we include information on insurance companies.

Similarly, foreign exchange companies specializing exclusively in offering currency exchange services have not been included as access points given the limited ability that this service has to expand financial inclusion. In some countries, foreign exchange outlets operate as mobile money agents and are good candidates for the establishment of partnerships with money transfer operators. This type of entity is usually regulated by the central bank and in general there is good public information available about entities authorized to exchange currency. In one FINclusion Lab workbook (Rwanda), information on currency exchange companies is included.

Savings groups, money lenders, deposit collectors, and other informal financial service mechanisms are relevant in some regions. However, given the informality of these actors, there are no centralized

6.1.7

registers that collect and publish their locations. In general, we have not included information on these informal or semi-formal actors. The only exceptions are: Ghana, for which we have included information on susu collectors sourced from the GCSCA (Ghana Co-op Susu Collectors Association) website; Myanmar, where we include information on pawnshop locations provided by the Myanmar Microfinance Supervisory Entity through the United Nations Development Programme; and

Rwanda, where it has been possible to obtain the number of savings group members at the district level through a study commissioned by Access to Finance Rwanda (AFR). SAVIX, a platform that reports information on over 170,000 savings groups around the world, may eventually host location data for savings groups as individual projects begin to incorporate more automated data gathering systems through innovative applications.

6.2

DATA GRANULARITY

FINclusion Lab provides information at the subnational level. For most countries and institutions, information on access points can be visualized at the first, second, and, in some cases, third level of administrative division, which allows us to see data with a high degree of granularity.

TABLE 11 - ADMINISTRATIVE LEVELS FOR WHICH DATA IS AVAILABLE ON FINCLUSION LAB

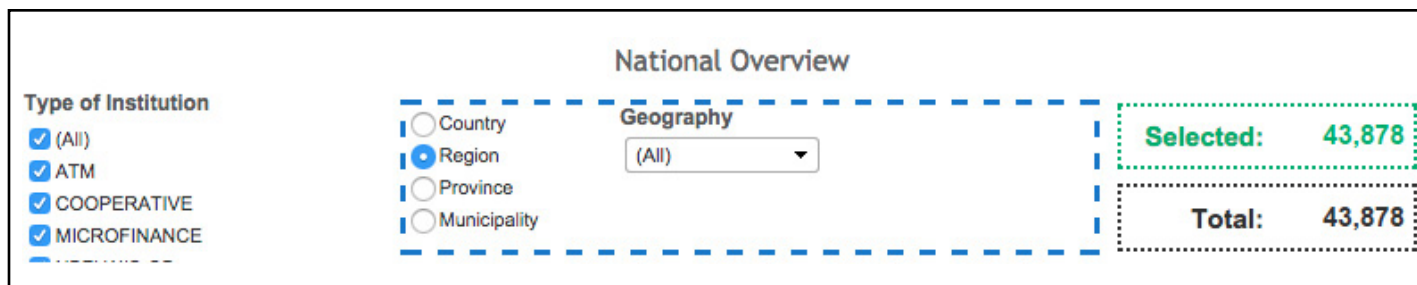
COUNTRY	FIRST-LEVEL	SECOND-LEVEL	THIRD-LEVEL
Benin	Departments (12)		
Bolivia	Departments (17)		
Burundi	Province (17)		
Ethiopia	Regional States (11) ²	Zones (68)	Districts (770)
Ghana	Regions (10)		
Guatemala	Departments (22)		
India ⁷	States (36) ⁸	Districts (196)	
Ivory Coast	Districts (14)		
Kenya	Provinces (8)	Districts (69)	
Malawi	Regions (3)	Districts (28)	
Myanmar ⁹	States & Regions (21)	Districts (67)	Townships (325)
Nigeria	States (36)	Local Government Areas (774)	
Peru	Departments (25) ⁶	Provinces (196)	Districts (1853)
Philippines	Regions (17)	Provinces (81)	Municipalities (1490)
Rwanda ²	Provinces (5)	Districts (30)	
Senegal	Regions (14)		
South Africa	Provinces (9)	Municipalities (52)	
Tanzania	Regions (26)	Districts (169)	
Uganda	Regions (4)	Districts (111)	Counties (159) ⁴
Zambia ⁵	Provinces (10)	Districts (89)	

1. 9 Regional states + two chartered cities (addis Ababa & Dire Dawa). 2. Data for commercial, cooperative & Microfinance banks only available at province level. 3. Data at municipality level only available for 18% of access points. 4. 146 counties & 13 municipalities. 5. Information at district level only available at State level. 6. 24 departments & the Constitutional Province del Callao. 7. Data on ATMS only available at State level. 8. 29 states & 9 Union territories. 9. Data on cooperatives & pawnshops only available at State/Region-level

6.2

Providing this level of granularity necessitates the use of standardized shapefiles, which permit us to visualize data at different levels of administrative division. Acquiring these precise maps in the shapefile format with updated administrative divisions is frequently challenging, although we have been able to collect the files necessary to represent information on maps to the third administrative level. Given the diversity of data sources used and the frequent updates in administrative divisions, data is not easily translated to subsequent administrative divisions despite having information at the first level of administrative division. For this reason, in some workbooks there has been some limited data loss that grows in relation to the granularity of the data. Generally, this data loss is not important and the total number of access points collected for a country, plus the number available at the administrative level selected, is always indicated in the upper right-hand part of the FINclusion Lab interface (see Figure 2).

FIGURE 2 - PANEL INDICATING NUMBER OF LOCATIONS NOT MAPPED AT EACH ADMINISTRATIVE LEVEL



In this example from the Philippines workbook, the panel indicates that, although there are 43,878 access points represented at the national and regional level, there are only 40,895 which FINclusion Lab has been able to map at the municipality-level (93% of the total). This means that there are 2,893 access points that are not possible to identify to which municipality they belong. Information on the number of locations mapped is available in all dashboards.

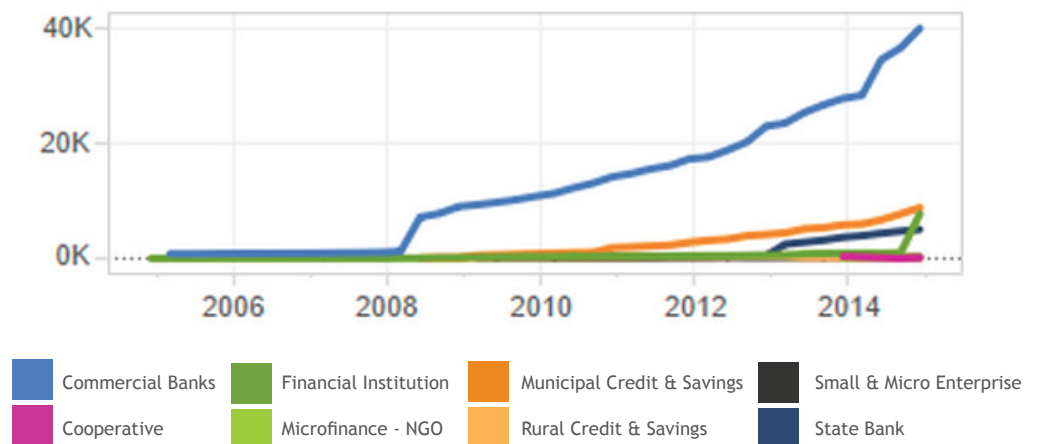
6.3 FINANCIAL INCLUSION PROGRESS: TIME SERIES & TREND MONITORING

Most types of data necessary for the evaluation of financial inclusion are not routinely collected or, if they are collected, are often of poor quality or are limited in scope. There are few high-quality ongoing data collection efforts for trend monitoring of financial inclusion progress over time. Most data on financial inclusion is collected on an ad hoc basis for the publication of special reports and is not widely

available or easily accessible. One notable exception to this trend is found in the case of Peru where it has been possible to collect data on access points at the subnational level for several years. This allows us to monitor how financial provider networks evolve over time (see Figure 3). In the case of Rwanda, FINclusion Lab contains data on access points for both 2013 and 2014, which also allows for trend analysis.

Figure 3 - Evolution of financial access points in Perú from 2006 to 2014

Location by Institution Type



6.4 BEYOND PHYSICAL ACCESS

Besides the proximity of outlets where customers can access financial products and services, it is necessary to understand how these products are used, the number of clients that save, the number of clients that use credit, the amounts, the legal barriers to access, etc. Unfortunately, the availability of this kind of information is extremely limited, especially at the subnational level. Once again, Peru is an exception in that the Superintendency of Banking and

Insurance (Superintendencia de Banca y Seguros, SBS) makes an enormous effort to compile and share financial inclusion data. As a result, FINclusion Lab's Peru workbook has additional information on the size of the credit portfolio and the amount of savings per institution in each of the departments and districts of Peru. For microfinance institutions, in the case of both India and Zambia, we have been able to obtain data related to the credit portfolio and the number of loans.

7.0 DEMAND-SIDE DATA

To have a complete view of the financial inclusion situation in a given country, it is necessary to compare the supply of financial products and services to the demand for these same products and services. Demand-side data provides insights on how financial products and services are used and on how financial service providers might more effectively serve specific demographics or regions. This information is obtained through general surveys that include questions on the use of financial products or through specific surveys on financial inclusion such as the

FinScope or FinAccess surveys. In addition to surveys, FINclusion Lab incorporates data on the socio-economic characteristics of the population, which is typically shared through the national institute of statistics for each country. This type of information aids understanding of the characteristics of a particular region - such as poverty or literacy levels - which can help stakeholders to understand the greater or lesser presence of financial institutions and devise strategies for increasing access in those areas.

7.1 DEMAND-SIDE SURVEYS

FINclusion Lab includes data from financial inclusion surveys undertaken in eight countries (Ghana, Kenya, Malawi, Rwanda, South Africa, Tanzania, Zambia, and Myanmar). In all cases, with the exception of the FinAccess survey in Kenya, the information comes from FinScope, a nationally representative survey that was developed by FinMark Trust and first piloted in 2002 in South Africa. The main goal of the FinScope survey is to measure the levels of access to, and uptake of, formal and informal financial products and services across the population of a particular country. Information from FinScope data included in FINclusion Lab is mainly in reference to: the percentage of the population that reports not having or not using any financial products or services (“excluded”); the percentage of the population that only uses informal mechanisms (“use informal mechanisms only”); and the percentage that uses formal products, distinguishing in some cases between banking institutions and non-bank institutions (“have/use bank formal products” and “have/use non-banks formal products”). Table 12 shows the FinScope and other demand-side data points included in FINclusion Lab in each of these countries.

TABLE 12 - FINSCOPE/FINACCESS DATA INCLUDED IN FINCLUSION LAB

COUNTRY	EXCLUDED	USE INFORMAL MECHANISMS ONLY	HAVE / USE NON - BANK FORMAL PRODUCTS	HAVE / USE BANK FORMAL PRODUCTS	HAVE / USE FORMAL PRODUCTS	NEVER BANKED	BORROWING - FORMALLY SERVED	SAVINGS - FORMALLY SERVED	BORROWING - NOT SERVED	SAVINGS - NOT SERVED
Ghana	★	★	★	★						
Kenya	★				★					
Malawi	★				★					
Myanmar	★				★		★	★	★	★
Rwanda	★	★	★	★						
South Africa	★					★				
Tanzania	★	★	★	★	★					
Zambia							★	★		

7.2 CONTEXTUAL DATA: SOCIO-ECONOMIC INDICATORS

Contextual data helps us develop a sense of the socio-economic characteristics of an area and population in which financial service provider locations are present or not present. It also allows us to undertake an exploratory analysis to formulate hypotheses on what factors could be related to the greater or lesser presence of different types of financial service providers. By itself, contextual data cannot explain the causes of financial inclusion or exclusion; this would require conducting specific research to test a particular hypothesis. However, it shows some trends that could lead to testable hypotheses. The main socio-economic and contextual indicators included in FINclusion Lab can be seen in table 13.

TABLE 13 - MAIN SOCIOECONOMIC AND OTHER CONTEXTUAL INDICATORS INCLUDED IN FINCLUSION LAB

COUNTRY	TOTAL POPULATION ¹	ADULT POPULATION ²	RURAL POPULATION	SEX	LITERACY RATES ³	POVERTY RATES ⁴
Benin	★	★	★		★	★
Bolivia	★		★			
Burundi	★					
Ethiopia	★		★	★		
Ghana	★	★	★	★	★	
Guatemala	★		★			
India	★		★	★	★	
Ivory Coast						
Kenya	★	★		★		
Malawi	★	★				
Myanmar					★	★
Nigeria	★				★	
Peru	★	★	★		★	★
Phillipines	★	★		★		★
Rwanda	★			★		★
Senegal	★		★		★	★
South Africa	★	★				★
Tanzania	★			★		
Uganda	★			★		
Zambia	★	★	★	★		

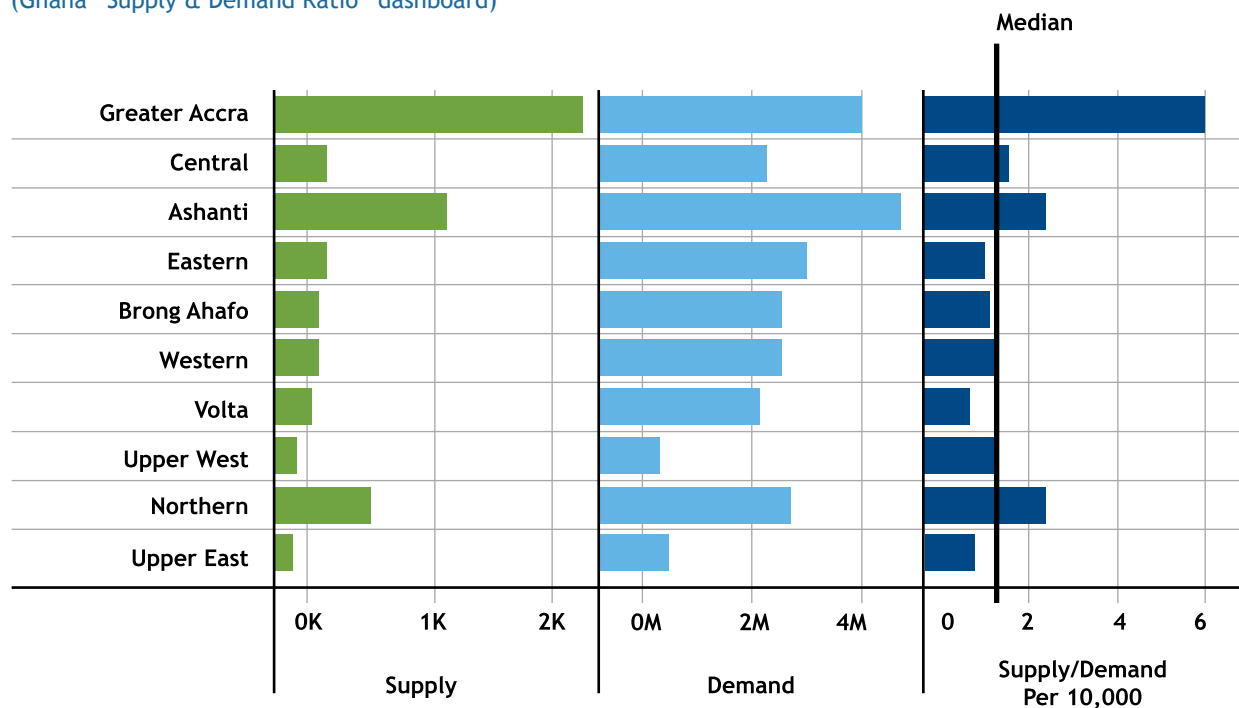
1. Number of households also available for India, Peru, Uganda & Zambia 2. In the case of Benin & Ghana age composition also available 3. In the case of Myanmar only available for population age 15-24. 4. Extreme poverty used in the case of Peru

7.2

The principal contextual indicator included in FINclusion Lab is the total population in each region or administrative district. The total population is important as it allows us to construct ratios and access indicators per capita that can be easily visualized via the “Supply and Demand Ratio” dashboard (see Figure 4). Given that in many countries access to financial products and services is restricted to the adult population, it is also useful to have this data point to calculate ratios per capita considering only the adult population. Total population data and adult population data come from the last available census in a country. The total population is a data point that is available in all countries except for Myanmar; the adult population, however, is only available for about half of the workbooks.

Figure 4 - Access Points per 10,000 Population

(Ghana “Supply & Demand Ratio” dashboard)



7.2

Another important data point is the percentage of rural population in each region and sub-region. Having this information allows us to see if there is a pattern in the lack of access to financial services and the greater or lesser rurality of a particular territory. Just as in the case of total population and adult population, rural and urban population percentages are generally obtained via census data. Additionally, FINclusion Lab offers information on literacy and poverty rates for a number of countries; these two elements influence access to, and usage of, financial products and services. In some countries, other indicators are included to support a better understanding of socio-economic conditions and a more precise interpretation of financial access data. Among these additional indicators is the penetration of mobile phones, rates of unemployment, access to healthcare, access to potable water, access to schools, inequality indices, migration statistics, and information on beneficiaries of conditional transfers (see Table 14).

Table 14 - Other Contextual Indicators Included in FINclusion Lab

% of People with Mobiles (Benin)

Homes with Cellular Telephone Reception (Peru)

Rates of Unemployment (Ethiopia, Myanmar)

PEA in Agriculture, Cattle Ranch & Forestry (Peru)

Health Facilities (Nigeria)

Inequality-Gini Index (Rwanda, Senegal)

Area km² (South Africa)

Distance from Water Source, Health Facilities & Schools (Uganda, Myanmar)

Population with Primary, Secondary & Post-secondary Education (Philippines)

Homes with Some Member in Another Country (Peru)

Migrant Population by Birth Place (Peru)

Homes Receiving Conditional Cash Transfers (Peru)

Population with Health Insurance (Peru)

Population with SIS Health Insurance (Peru)

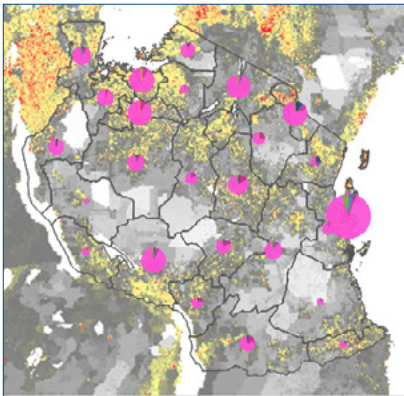
Population without DNI -18 & More- (Peru)

7.2

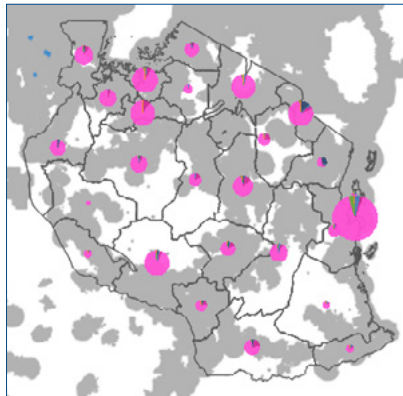
Finally, for nearly all of the countries on the platform, we include three raster layers of data relevant to cell phone coverage, population density, and the network of principal transportation and supply infrastructure. Cellular coverage data is sourced from Collins Bartholomew; the interactive coverage map allows users to visualize global mobile network coverage. The population density contextual layer is sourced from the Afripop site; each pixel of this heat map represents an estimate of the number of people per 100 square meters, based on both the latest census data used by Afripop and satellite image interpretation, according to Afripop’s methodology. The infrastructure data is gathered from Infrastructure Africa; main roads, power transmission lines, and power plants are included on this map and are available for many Sub-Saharan African countries from the Infrastructure Africa web site (see Figure 5).

Figure 5 - Raster data layers available at FINclusion Lab (Tanzania workbook)

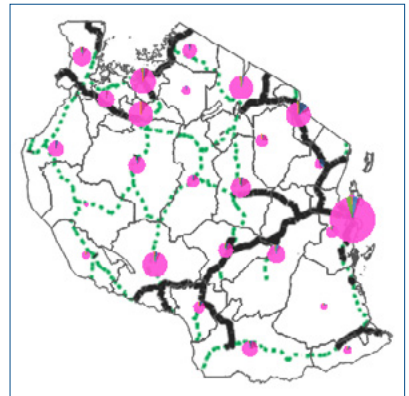
POPULATION DENSITY



CELLULAR COVERAGE



INFRASTRUCTURE



8. CONCLUSION

MIX's experience engaging with stakeholders in 20 different countries on financial inclusion measurement and data has revealed many valuable lessons. Our financial inclusion data and analytics support governments, financial service providers, researchers, and donors as they strive to understand the unique financial inclusion landscape and develop new solutions to fill gaps in access, usage, and quality of financial services. These early efforts have raised awareness of the value and increasing importance of data sharing and building regular and sustainable systems for measuring the changing financial landscape in each country. They have also surfaced many issues around data granularity, data quality, and data regularity, leading to discussions on how the sector can make improvements in these areas.

New technologies such as GPS receivers and GIS software provide a promising means to more precisely analyze spatial and geographical relationships, which can reveal challenges related to proximity to the nearest access point, attendant costs of transportation, time, etc.

for financial access points in particular areas. The cost of manually collecting this information (a process that required contracting a local team to physically visit all of the existing bank branches in the countries to record their geographic coordinates) is often prohibitive for organizations working to expand financial access in developing countries. An alternative would be to support regulators to develop templates for financial service providers to report GIS data or geo-coded data that is granular enough (administrative level 3 or 4 e.g. municipality, township, ward, cell, or settlement) to provide significant insight on the state of financial inclusion. MIX is working to support the development of such systems in a series of countries in Africa over the coming few years. Our goal is to build a sustainable flow of high quality data that allows for regular updates to FINclusion Lab and provides local stakeholders with the market intelligence they need to increase financial inclusion in their regions. It is our hope that future iterations of this report will reveal significant progress in terms of the quality and regularity of financial inclusion data.

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