

# Africa's Digital Transformation Financial Inclusivity and New Methods of Measuring Poverty

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# Data revolution

In order to achieve the UN Sustainable Development Goals (SDG's), we need a **Data Revolution** that empowers everyone to act.

We need tools to measure the world's progress in achieving these goals.

World Data Lab harnesses the power of big data to help make everyone count, and leave no one behind.

# inspiration

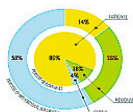
## 2009 GLOBAL INTERNET MAP



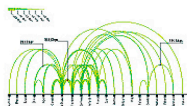


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### INTERNATIONAL RECORDS RANKED BY COUNTRY

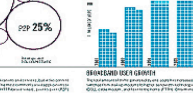
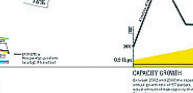
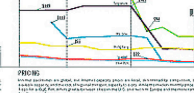
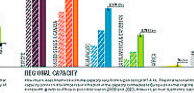
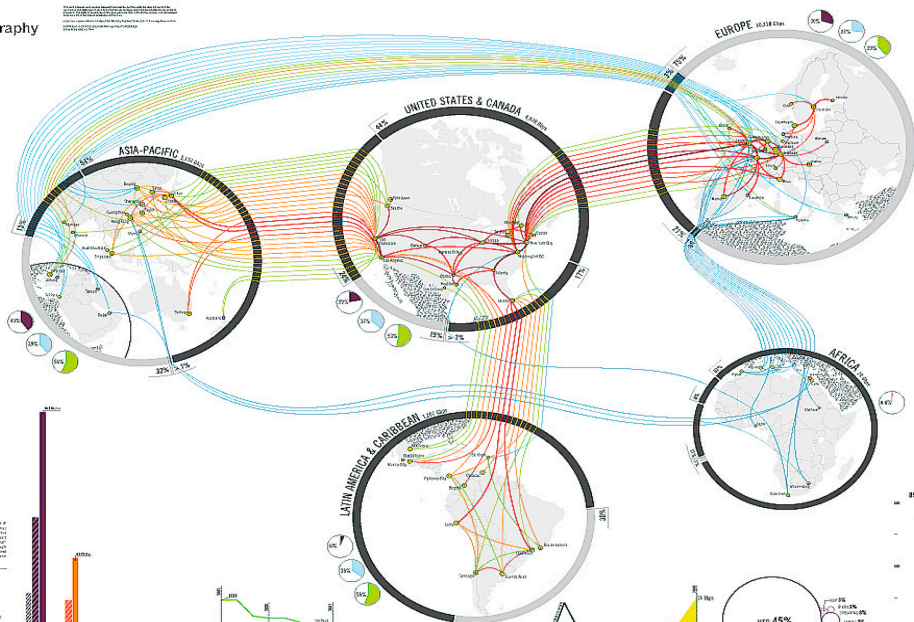


**CAPACITY**  
 The chart shows the capacity of international records by country. The United States has the highest capacity, followed by other countries.



### COUNTRY RATES

The chart shows the rates of international records by country. The United States has the highest rate, followed by other countries.



### INTERNET INFRASTRUCTURE

The chart shows the infrastructure of the internet, including the number of servers, bandwidth, and other metrics. The United States has the highest infrastructure, followed by other countries.

**SECOND CHARTS**  
 The chart shows the second charts, including the number of servers, bandwidth, and other metrics. The United States has the highest second charts, followed by other countries.

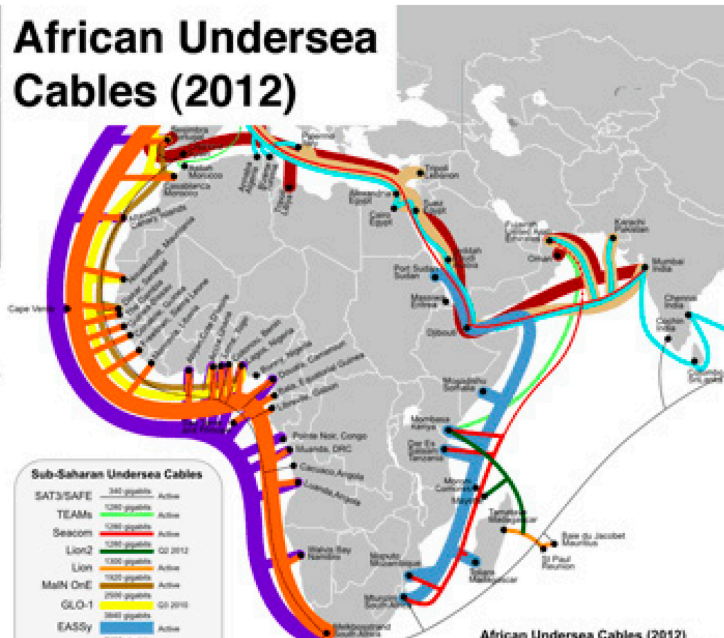
# THE START OF DIGITAL TRANSFORMATION

## African Undersea Cables (2009)



African Undersea Cables (2009)  
<http://manypossibilities.net/african-undersea-cables/>

## African Undersea Cables (2012)



**Sub-Saharan Undersea Cables**

SAT3SAFE	340 gbps	Active
TEAMS	1200 gbps	Active
Seacom	1200 gbps	Active
Lion2	1200 gbps	Q2 2012
Lion	1000 gbps	Active
Main One	1000 gbps	Active
GLO-1	1000 gbps	Q2 2012
EASSy	1000 gbps	Active
WACS	5100 gbps	Q2 2011
ACE	5100 gbps	Q2 2012

African Undersea Cables (2012)  
<http://manypossibilities.net/african-undersea-cables/>  
 Version 23 - Sept 2010

# Financial Inclusivity: Mpesa

- 42% of Kenya GDP (\$70 billion) Transacted on M-pesa
- 26.6 Million Registered Mpesa Customers
- 16 million transactions happen on M-PESA every day.
- M-Shwari and KCB M-PESA
- 75 per cent of adult Kenyans have a financial account, with 71 per cent of women owning financial accounts – Brookings Institute (2017).
- \$445.9 million value of micro-loans transactions through M-Shwari in July, from \$58.6 million in January 2017.

# Energy Inclusivity: M-Kopa

- More than 500,000 households connected as of March 2017.
- Connecting 500 homes every day
- Over 62.5 million hours of kerosene free lighting per month enjoyed by M-KOPA Households
- More than 1 million mobile money transactions generated per month
- More than 50,000 solar TVs acquired by M-KOPA Customers
- Over 250,000 credit scores generated in Kenya, 92% of them being positive. This enables customers to access credit from M-KOPA and other institutions.
- M-KOPA customers have upgraded to more than 150,000 assets such as water tanks, energy-efficient cooking stoves and smartphones

# Mobile Healthy and Inclusivity: Mtiba

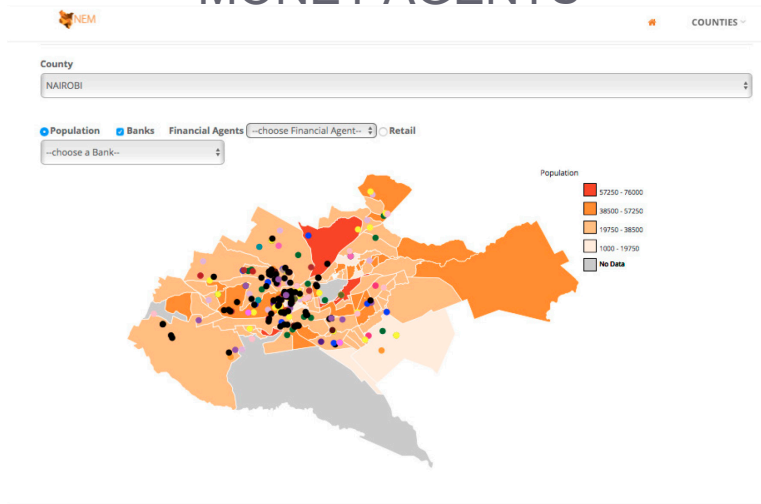
- More than 660,000 Kenyans now save on M-Tiba enabling them to access life-saving treatment at more than 400 facilities whenever they feel unwell
- M-Tiba has paid out more than Sh 126.8 million to customers over more than 83,000 clinic visits
- More than Sh 7.8 million saved on M-Tiba by March 2017



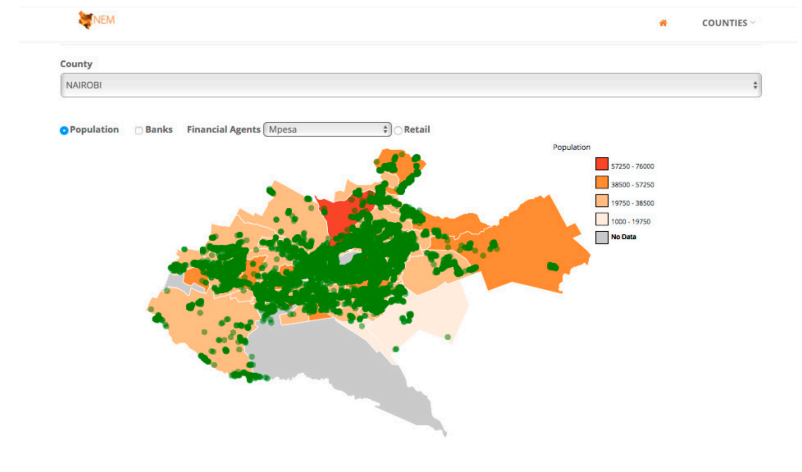
# Bank & Mobile Money Distribution in Nairobi

## SUBNATIONAL DATA

### BANK BRANCHES MONEY AGENTS



### MOBILE DATA





**WORLD DATA LAB**

real-time data models

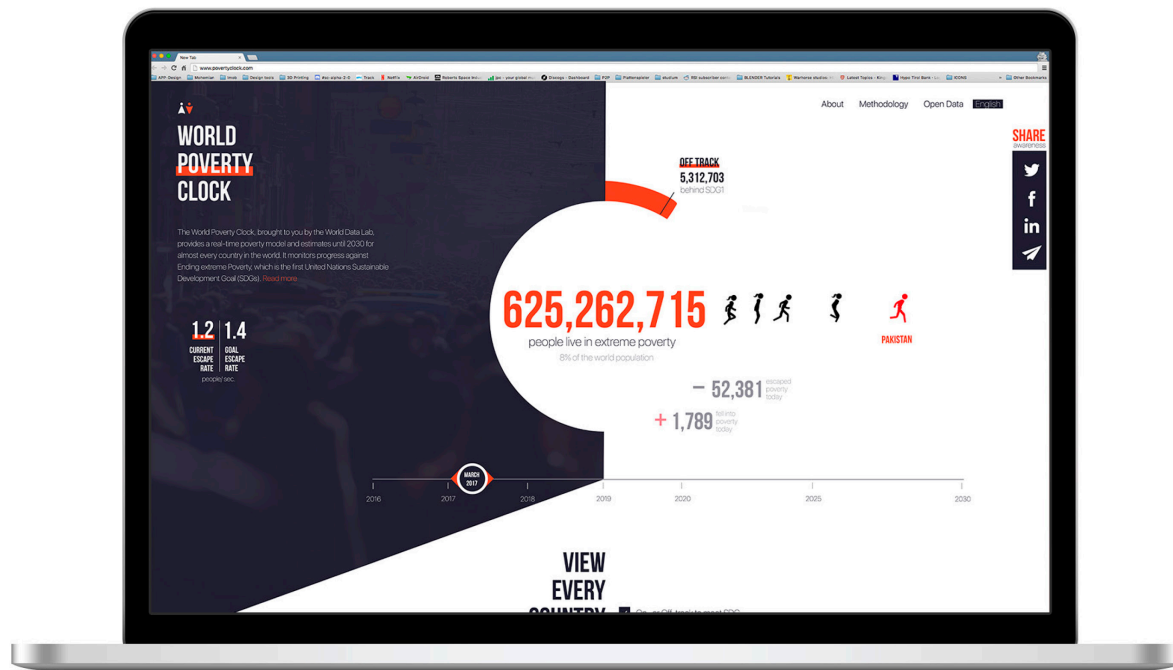
A CASE STUDY



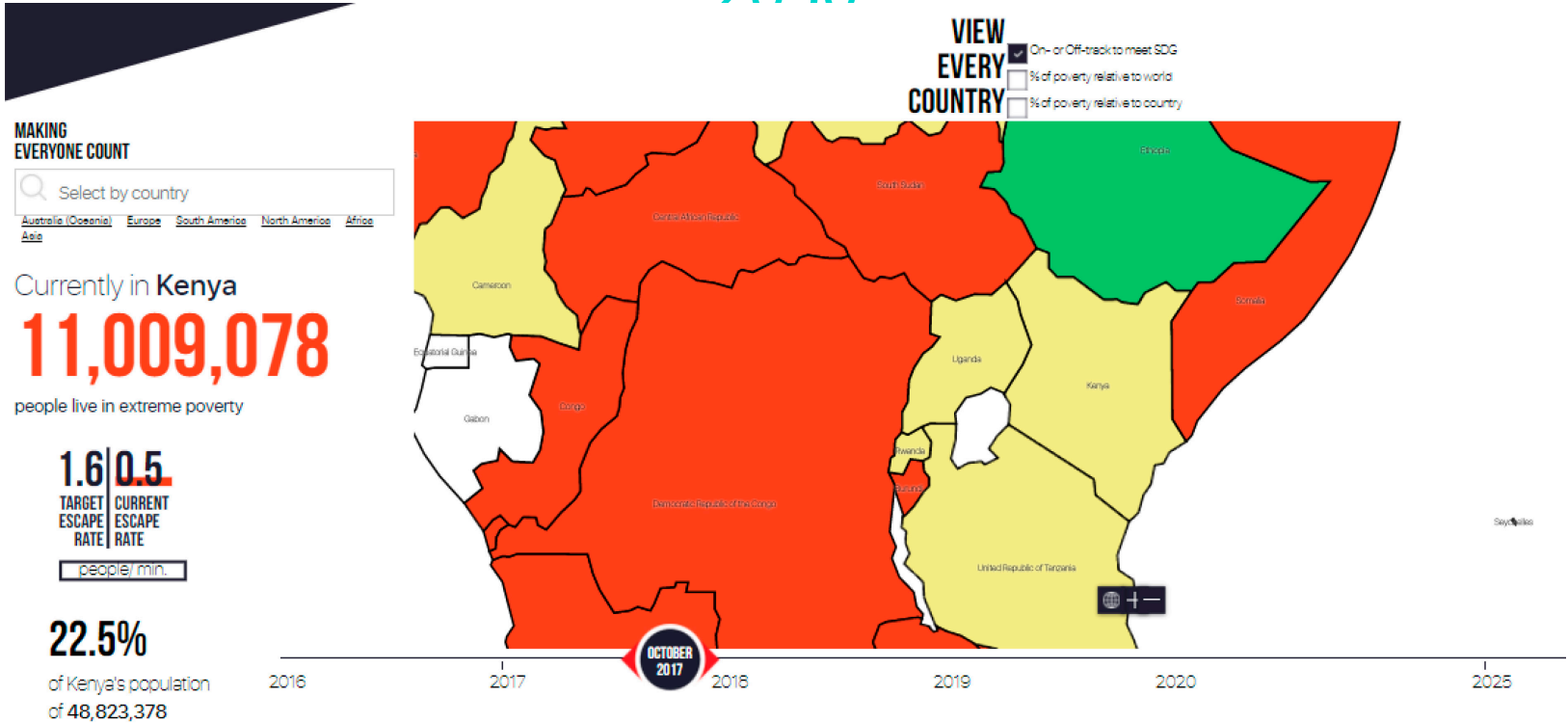
# A new approach

	Traditional approach	WDL approach
Timeliness	4 years old (narrative of rapid poverty reduction)	Real-time (poverty in 2016 may have increased)
Direction of analysis	Past (Stating the obvious)	Present and Future (focus on progress and benchmarking against needs)
Unit of analysis	Percentages	Actuals
Modelling	Economic, mainly linear	Integrated economic, demographic, climate in consistent shared socio-economic pathways
Communication	General messages for a small number of experts	Focus on raising awareness at global level and sub-national data for policy makers in countries
Illustration	<i>[In Mali] “between 2001 and 2010, GDP growth averaged 5.7% per year. During the period, the GINI index fell 7 points. The income of the bottom 40 grew, while the mean contracted.” (World Bank, GMR 2016)</i>	<i>Today, Kenya has 10.9M poor people. If Kenya keeps reducing poverty at the expected rate, there will be 4.4M Kenyans in extreme poverty in 2030. It needs to double the rate of poverty reduction.</i>

# The World Poverty Clock



# Kenya will make progress but, not end extreme Poverty by 2030



# first sub-national poverty model

## MAKING EVERYONE COUNT

Select by province

Currently in Kenya

**10,990,985**

people live in extreme poverty

**1.6** | **0.5**  
TARGET ESCAPE RATE | CURRENT ESCAPE RATE

people/min.

**22.6%**

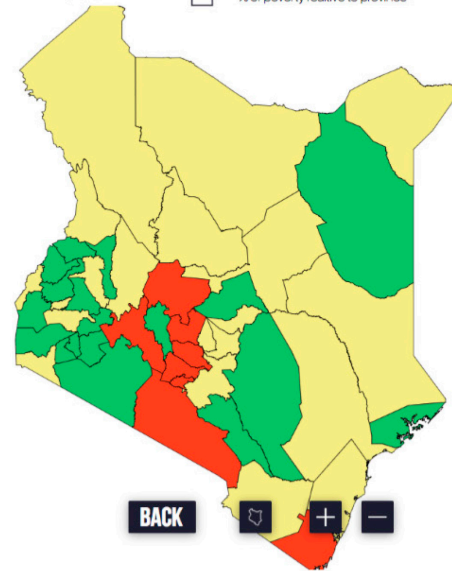
of Kenya's population of **48,670,346**

## VIEW EVERY COUNTRY

- On- or Off-track to meet SDG
- % of poverty relative to country
- % of poverty relative to province

## SUBNATIONAL DATA

Kenya **VIEW**



**BACK**





# WORLD DATA LAB

making everyone count

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