



ASIA-PACIFIC TELECOMMUNITY

15th APT Policy and Regulatory Forum (PRF-15))
3-5 August 2015, Singapore

Document
PRF-15/INP-28

3 August 2015

UN Global Pulse

Driving a Big Data Revolution for Global Development and Humanitarian Action

Contact :

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Driving a Big Data Revolution for Global Development and Humanitarian Action

Ebola and big data

Waiting on hold

Mobile-phone records would help combat the Ebola epidemic. But getting to look at them has proved hard

Oct 25th 2014 | From the print edition



149



351



IN THE battle against Ebola, mobile phones could be invaluable—not just in themselves, as devices that can be used to send people public-health information or let them call helplines, but also because of the data they generate. Phone companies use call-data

**Regional Ministerial Consultative Meeting on Ebola:
Leveraging Information and Communication Technology to Save Lives**

Freetown, Sierra Leone 26 - 27 August 2015)

(Bintumani Conference Centre, Aberdeen, Freetown)

Day Two, Thursday 27 August 2015	
ICTs IN ACTION	
BIG DATA ANALYSIS AND ITS USE FOR EMERGENCY SITUATIONS <i>The session will focus on the role of Information and Communication Technology and how Big Data Analysis can help in awareness raising, and managing outbreaks during a disaster.</i>	
09.00- 10:15	<ul style="list-style-type: none"> • Presentation by ITU on the role of ICT for Disaster Risk Reduction and Management Discussions
10:15-10:30	<i>Coffee break</i>
PARTNERSHIPS WITH STAKEHOLDERS <i>This session will discuss the importance of coordination by multi-stakeholders using ICT</i>	
10:30-12:30	<ul style="list-style-type: none"> • Representatives of Mobile Network Operators • Dr Tom Obale Kargbo, Chairman, National Telecommunications Commission (NATCOM), Sierra Leone • Regulatory Authority (Liberia) • M. Moustapha Mamy Diaby, Director General, Regulatory Authority for Post and Telecommunications (ARPT), Guinea • Dr Eugene Juwah, Executive Vice Chairman/CEO, Nigerian Communications Commission (NCC), Nigeria • M. Abdou Karim Sall, Director General, Regulatory Authority for Telecommunications and Post (ARTP), Senegal • Discussions
12:30-14:00	<i>Lunch break</i>
EBOLA INFORMATION SHARING APPLICATION AND CALL DATA RECORDS PROJECT During this session ITU will present a new project on big data based on Call Data Records (CDRs) and a Smartphone application that has been developed by ITU in cooperation with WHO. Its purpose is to share information on Ebola related issues, national and other contacts, news, locations of field and mobile health units, etc.	
14:00-15:45	<ul style="list-style-type: none"> • ITU Presentation of Big Data use for preparedness, and response to Ebola virus and Epidemics



Bernard Marr
Contributor

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I write about big data, analytics and enterprise performance
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Now

TECH 4/28/2015 @ 12:35PM | 9,943 views

Using Big Data In A Crisis: Nepal Earthquake

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As I write this, hundreds of emergency services, charities, disaster relief agencies and volunteers are doing their best to help people affected by the terrible Nepalese earthquake which struck during the weekend. And Big Data is playing its part, too – with crowdsourced, data-driven efforts to connect people outside the country with their missing loved ones, and assist in getting aid to where it is needed.

Big Data is the name given to our ever-increasing ability to collect more data from a multitude of sources, and analyze it for insights using advanced computer algorithms. Patterns humans can't see provide a better understanding of situations and solutions to problems. Disasters are big, messy and noisy situations, and exactly the sort of conditions in which Big Data can help to make sense of the chaos. The massive amounts of data that we are generating with mobile phones, satellites and social media can all play a part in providing clues to the best way to respond to a situation.



Share

South Korea

South Korea to track mobile phones to enforce Mers virus quarantine rules

Deputy prime minister reveals plan to monitor nearly 2,000 people as sixth person dies and number of cases rises to 87

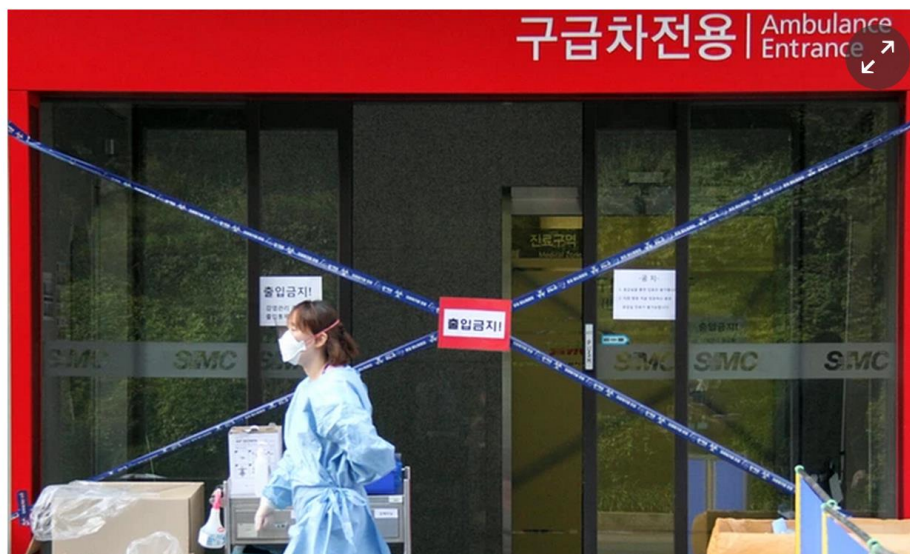
Reuters

Monday 8 June 2015 04.34 BST



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Comments
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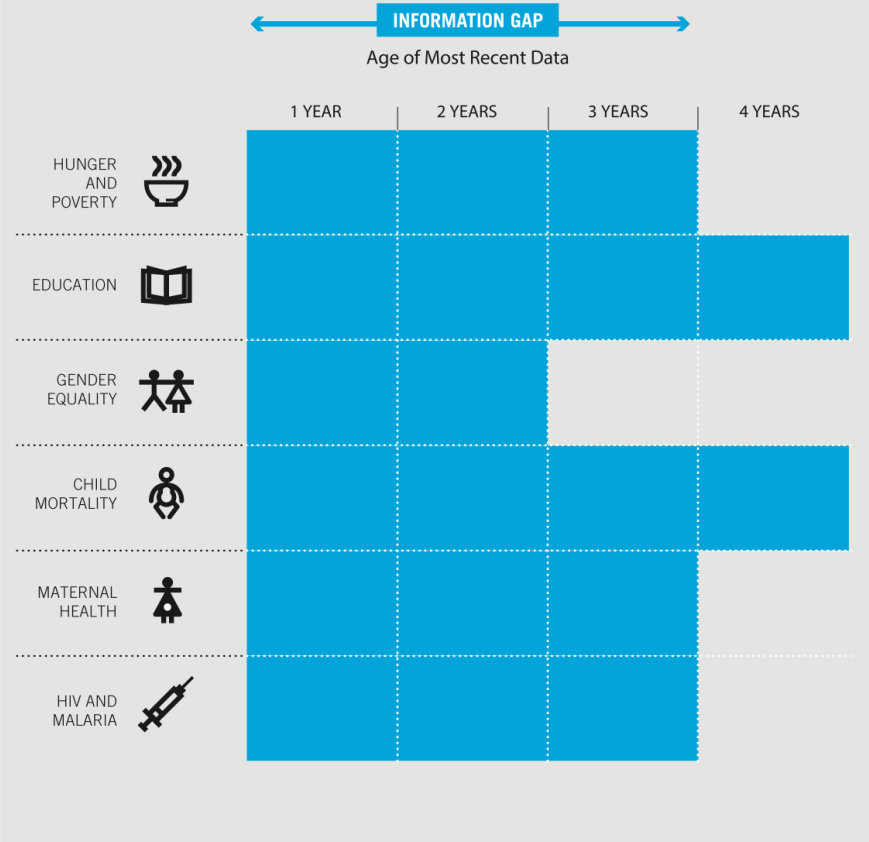


A medical worker walks past a hospital in Seoul where patients with Mers are being treated. Photograph: Xinhua / Landov / Barcroft Media

South Korean authorities will track the mobile phones of hundreds of people under quarantine to prevent the spread of the deadly Mers virus as a sixth person died in the outbreak and the number of infections rose to 87.



The Information Gap

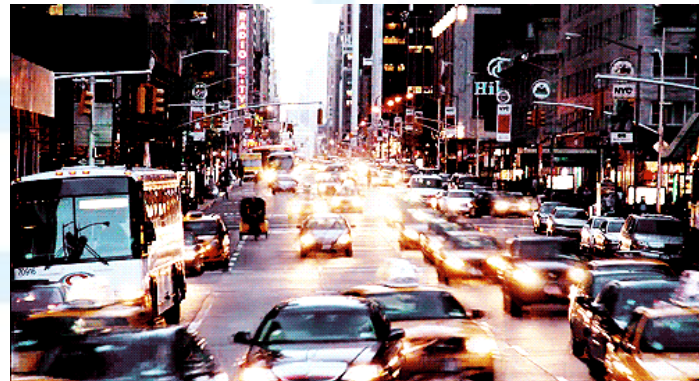


Household-level data is challenging to collect on a real-time basis, making development progress difficult to track. (Source: Millennium Development Goals Report, 2011)

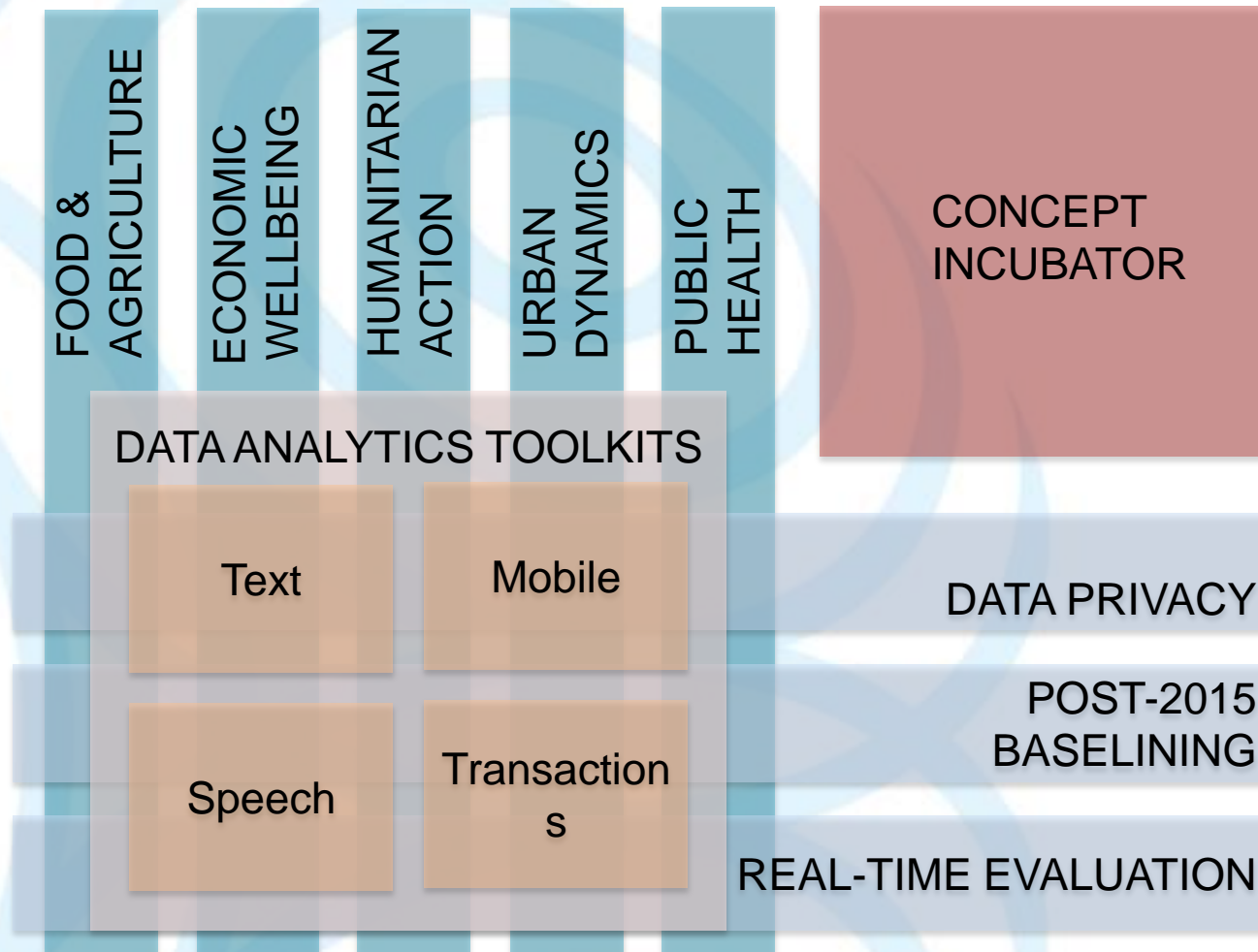
UN Global Pulse

Vision Big Data harnessed responsibly as a public good

Mission Accelerate discovery and adoption of big data innovation for sustainable development and humanitarian action



2014-2015 GP Innovation Programs





TRACK 1

INNOVATION DRIVER

DATA INNOVATION PROJECTS

TRACK 2

ECOSYSTEM CATALYST

POLICY, ADVOCACY & ADOPTION

TRACK 1: INNOVATION DRIVER

- Implement data innovation programmes through Pulse Labs to provide UN and development partners with access to the data, tools and expertise required to discover new uses of big data for development.
- Develop toolkits, applications and platforms to improve data-driven decision-making and support evaluation of promising solutions.

TRACK 2: ECOSYSTEM CATALYST

- Contribute to the development of regulatory frameworks and technical standards to address data sharing and privacy protection challenges.
- Engage key stakeholders on a priority innovation agenda.
- Provide public sector organisations with policy guidance and technical assistance to strengthen their capacity for integrating real-time insights into operations.

DIGITAL SERVICES ARE **SENSOR NETWORKS** FOR MEASURING HUMAN WELLBEING.

What people say

- Social media (content)
- Online advertisement
- Complaint system
- Radio

What people do

- Social media (location)
- Mobile data
- Utility usage data
- Postal data
- Transportation data
- Searching keywords
- On-/ offline retail data
- Remote sensing





Global Pulse Project Series

<http://unglobalpulse.org/blog/big-data-development-action-global-pulse-project-series>



GLOBAL
PULSE

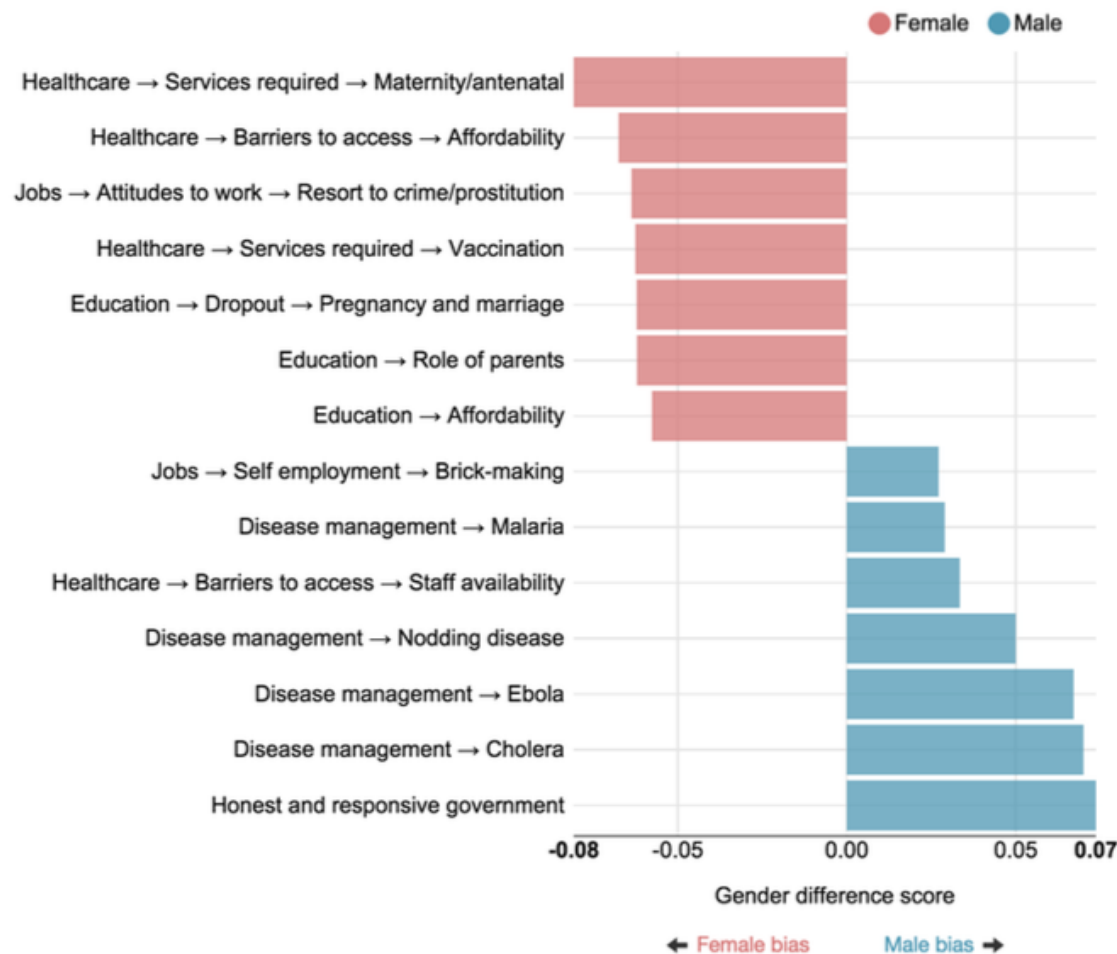
SUPPORTING THE POST-2015 DEVELOPMENT AGENDA CONSULTATIONS USING U-REPORT

PARTNERS: UNDP, UNICEF

PROGRAMME AREA: POST-2015



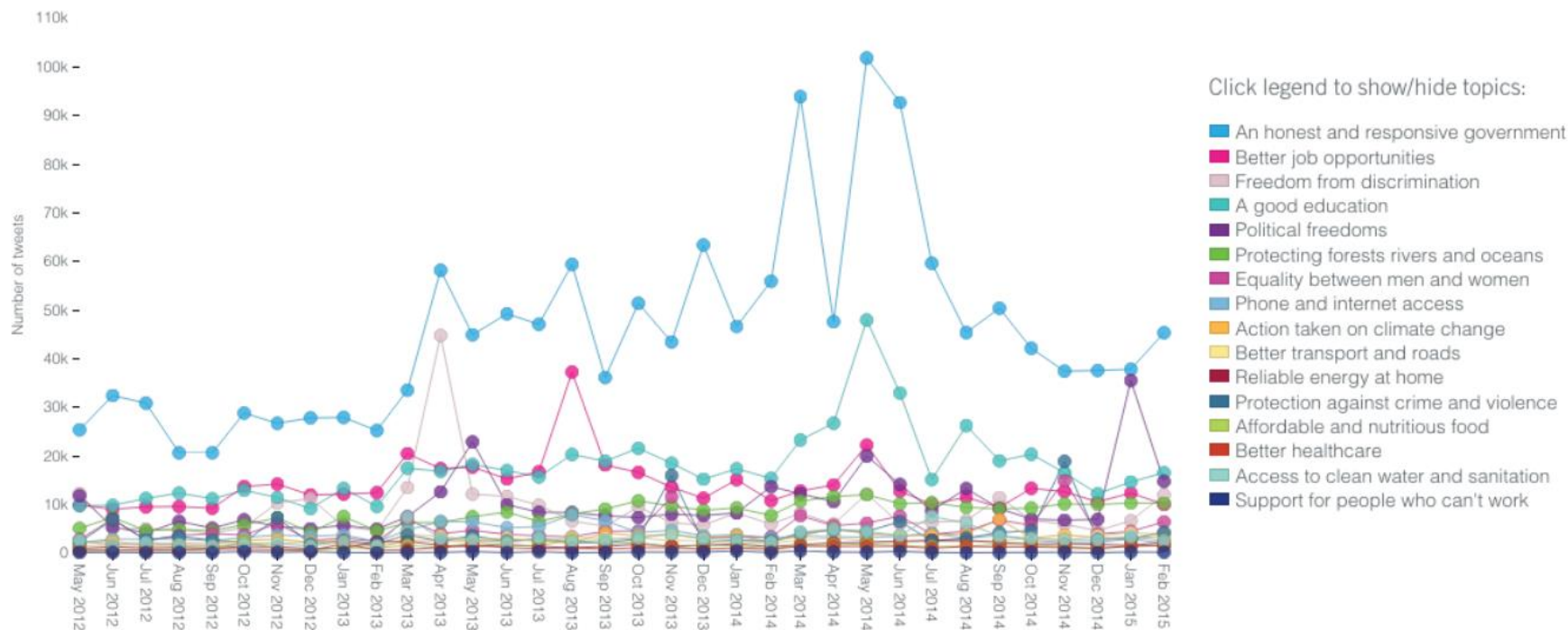
Empowered lives.
Resilient nations.



POST-2015

USING TWITTER TO UNDERSTAND POST-2015 GLOBAL DEVELOPMENT PRIORITIES

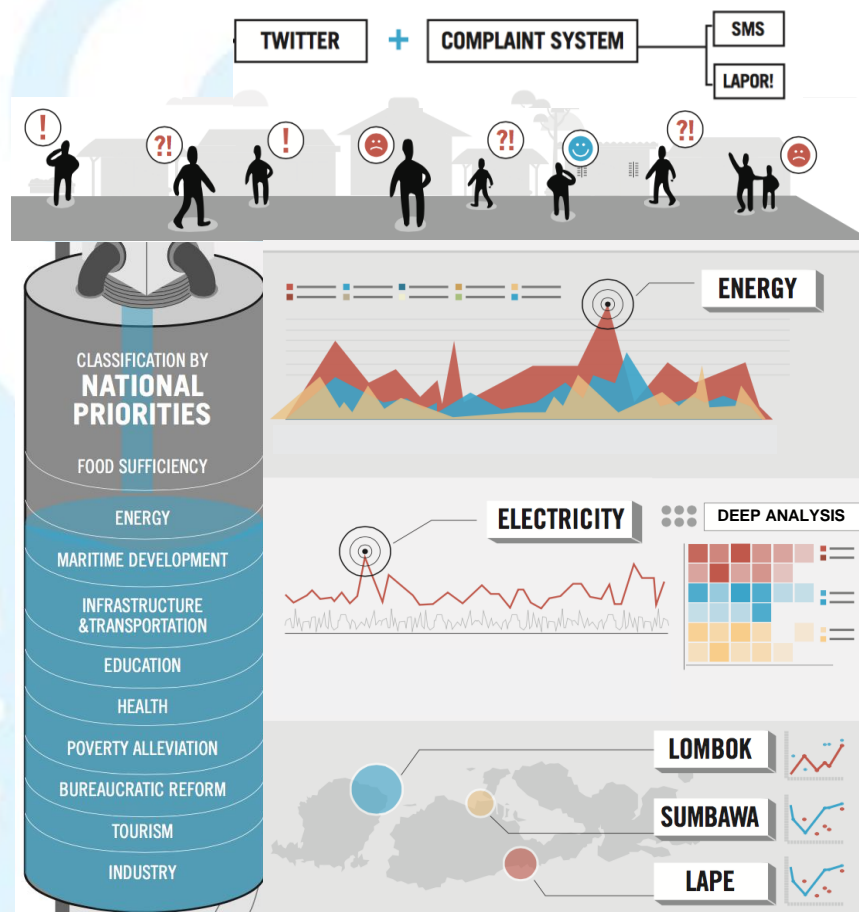
PARTNER: UN MILLENNIUM CAMPAIGN, DATASIFT
PROGRAMME AREA: POST-2015



MINING CITIZEN FEEDBACK DATA FOR ENHANCED LOCAL GOVERNMENT DECISION-MAKING

**PARTNERS: NTB PROVINCIAL GOVERNMENT, LAPOR! UNIT (OFFICE OF THE PRESIDENT
OF INDONESIA)**

PROGRAM AREA: ECONOMIC WELL-BEING



SITUATIONAL AWARENESS CATEGORIES

Status of forest fires -
Hotspot status -
Infrastructure affected -
Air pollution -
Illegal logging -
Climate change -
Biodiversity destruction -

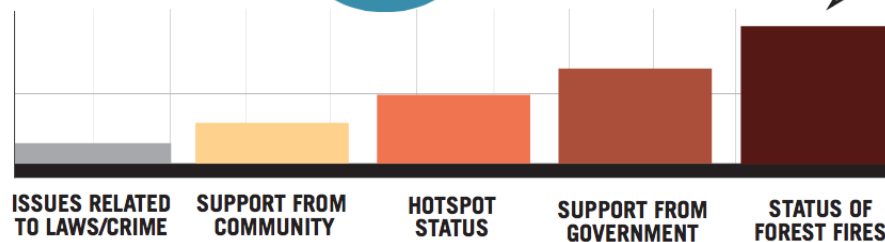
**PHYSICAL
ENVIRONMENT**
53%

**SOCIAL
ENVIRONMENT**
22%

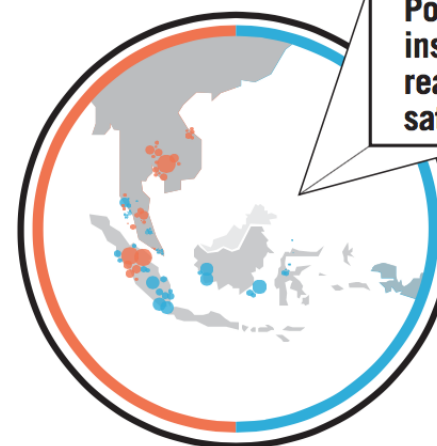
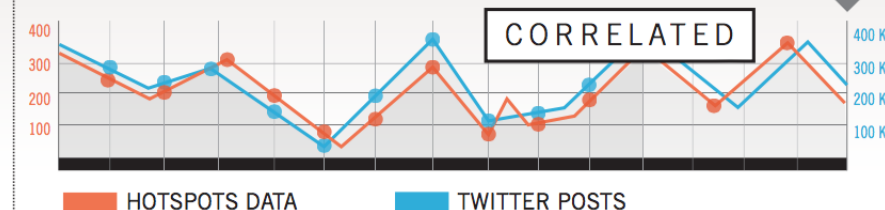
SUPPORT
25%

- Issues related to laws or crime
- Public health issues
- Disrupted activities
- Casualty information
- Status of displaced communities
- Specific status of affected citizens
- Need for a mask

MOST DISCUSSED TOPIC



COMPARING TWEET DYNAMICS AND HOTSPOTS



Potential exists to combine insights from social media with real-time information from satellites on fire/haze events.

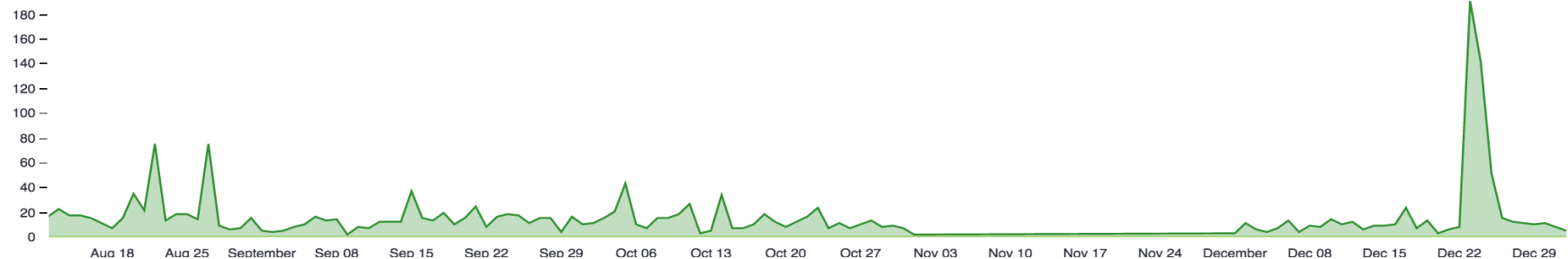
This would help the Government of Indonesia to verify reports from citizens via social media on fire/haze events as well as give it a stronger sense of what is happening 'on the ground' in real-time.

UNDERSTANDING PUBLIC PERCEPTIONS OF IMMUNISATION USING SOCIAL MEDIA

**PARTNERS: INDONESIA MINISTRY OF NATIONAL DEVELOPMENT
PLANNING, INDONESIA MINISTRY OF HEALTH, UNICEF AND WHO**

PROGRAMME AREA: PUBLIC HEALTH

■ Disease outbreak
 ■ New vaccine
 ■ Religious concern
 ■ Side effects

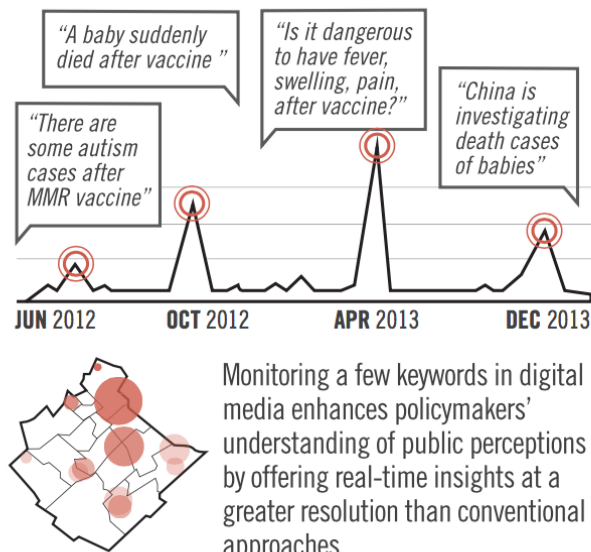


REAL-TIME PROGRAMME FEEDBACK

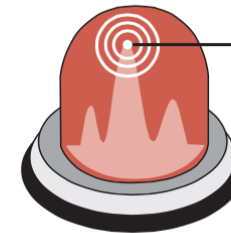


Social media can provide real-time feedback on a programme through quantitative and qualitative analysis of public tweets.

SITUATIONAL AWARENESS

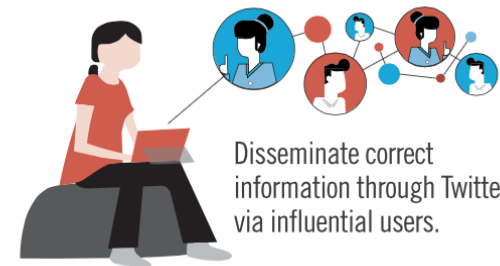


EARLY WARNING



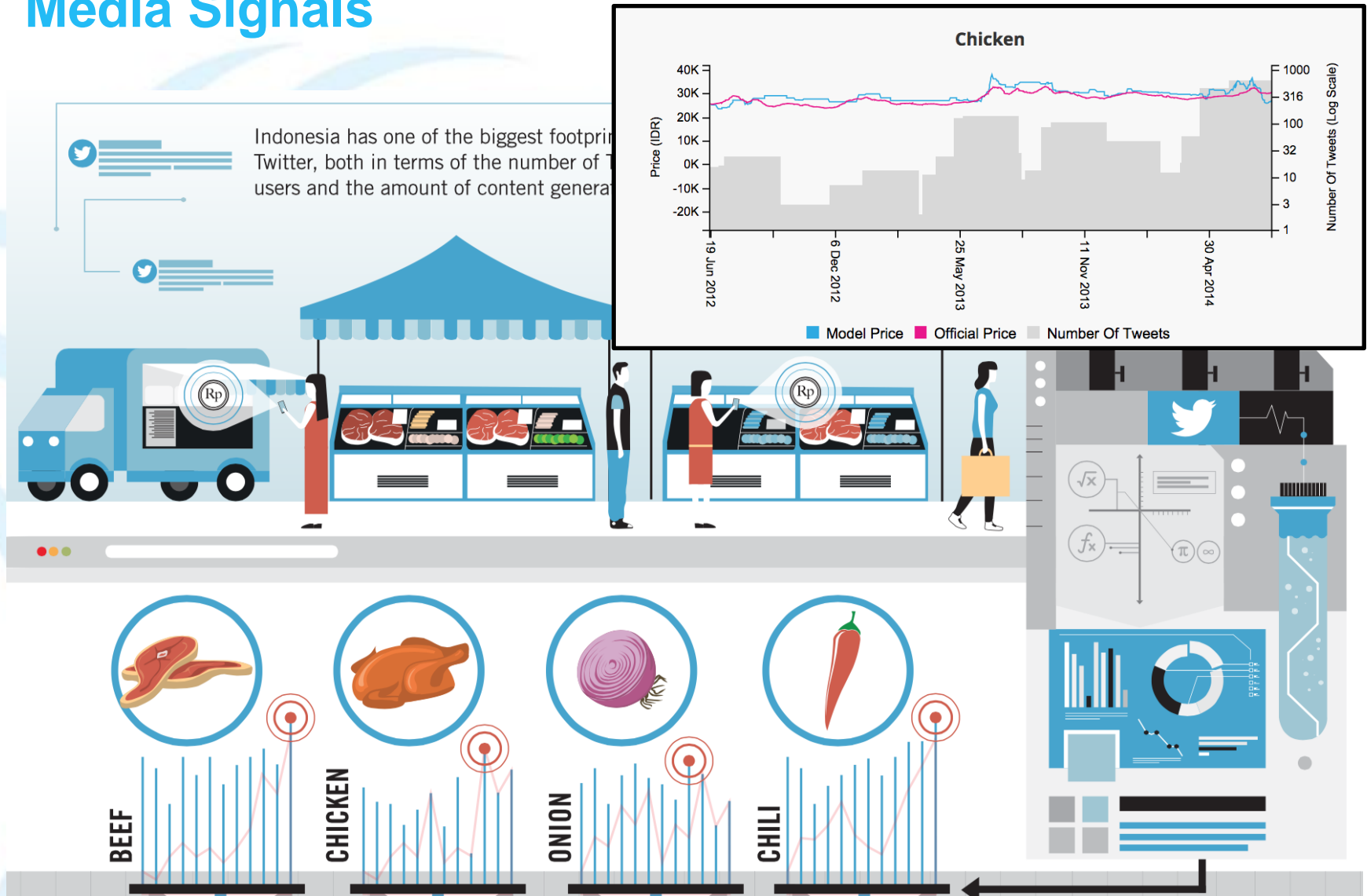
Detect people concerned about death after receiving the vaccine.

RAPID RESPONSE



Disseminate correct information through Twitter via influential users.

Nowcasting Food Prices in Indonesia using Social Media Signals

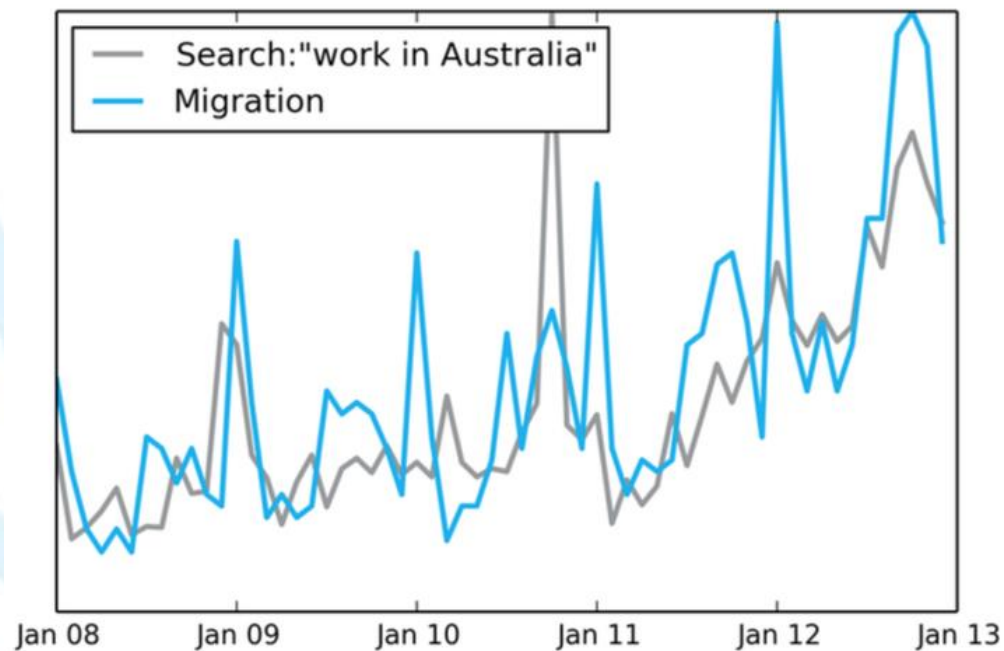




**GLOBAL
PULSE**

ESTIMATING MIGRATION FLOWS USING ONLINE SEARCH DATA

PARTNER: UNITED NATIONS POPULATION FUND (UNFPA)
PROGRAMME AREA: ECONOMIC WELLBEING



ECONOMIC WELL-BEING

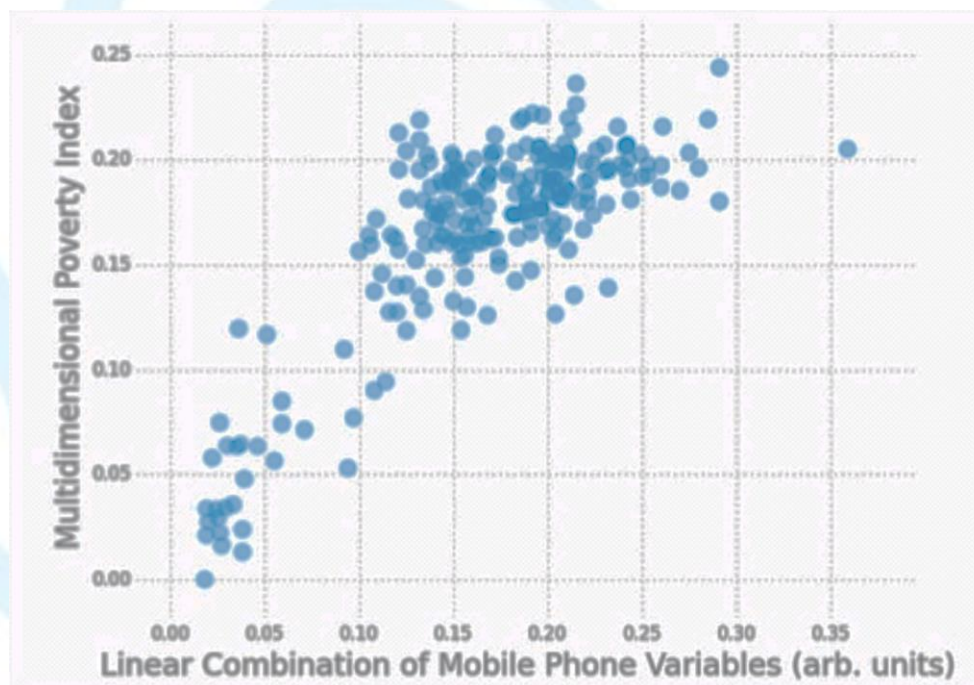


**GLOBAL
PULSE**

USING MOBILE PHONE DATA AND AIRTIME CREDIT PURCHASES TO ESTIMATE FOOD SECURITY

PARTNERS: UN WORLD FOOD PROGRAMME, UNIVERSITÉ CATHOLIQUE DE LOUVAIN, REAL IMPACT ANALYTICS

PROGRAMME AREA: FOOD SECURITY & AGRICULTURE



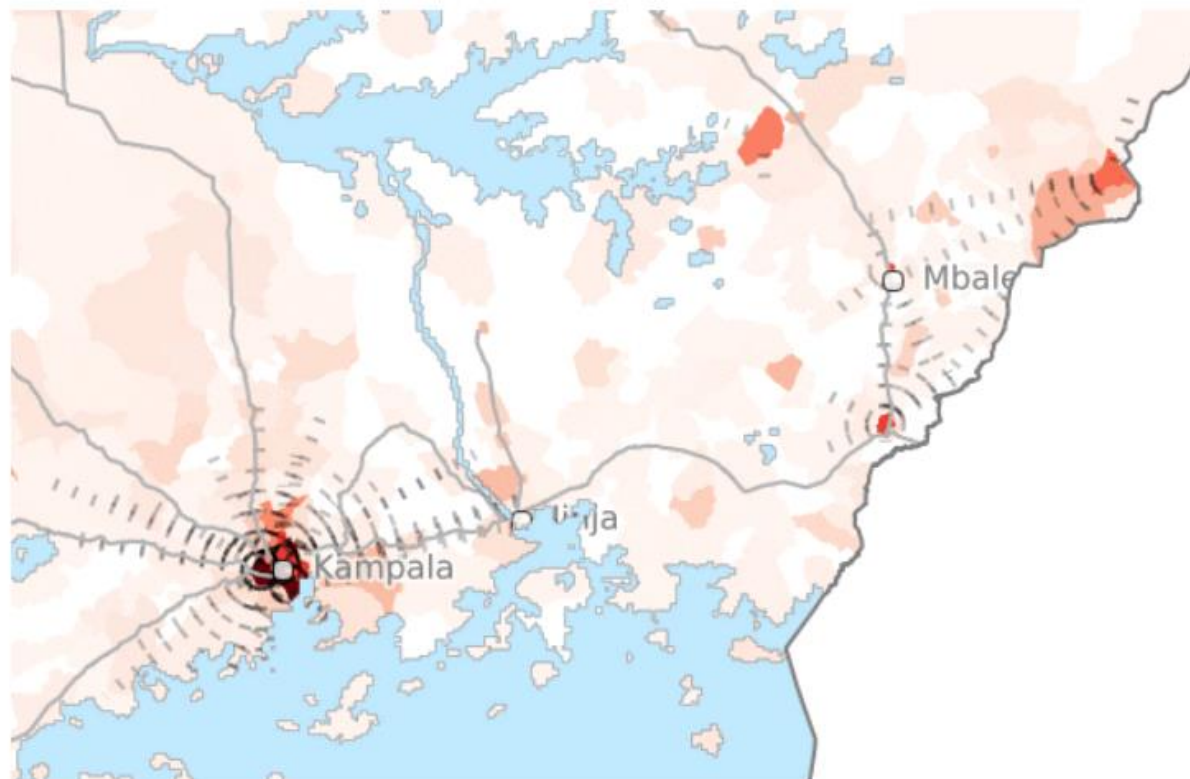
FOOD & AGRICULTURE



DATA VISUALISATION AND INTERACTIVE MAPPING TO SUPPORT RESPONSE TO DISEASE OUTBREAK



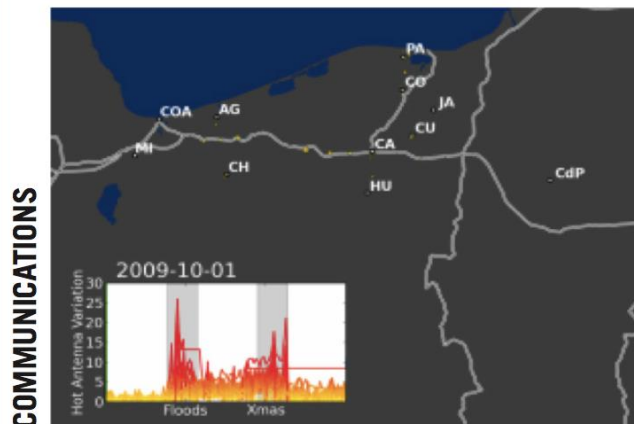
PARTNERS: WORLD HEALTH ORGANIZATION, UGANDAN MINISTRY OF HEALTH
PROGRAMME AREA: PUBLIC HEALTH



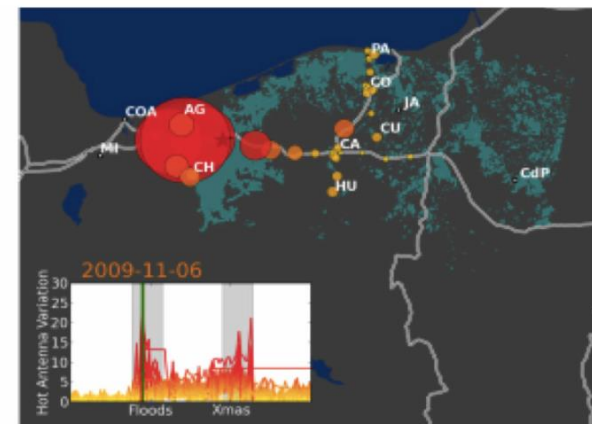
USING MOBILE PHONE ACTIVITY FOR DISASTER MANAGEMENT DURING FLOODS

PARTNERS: GOV. OF MEXICO, UN WORLD FOOD PROGRAMME, TELEFONICA
RESEARCH, UNIVERSIDAD POLITECNICA DE MADRID
PROGRAMME AREA: HUMANITARIAN ACTION

CONTROL WEEKS

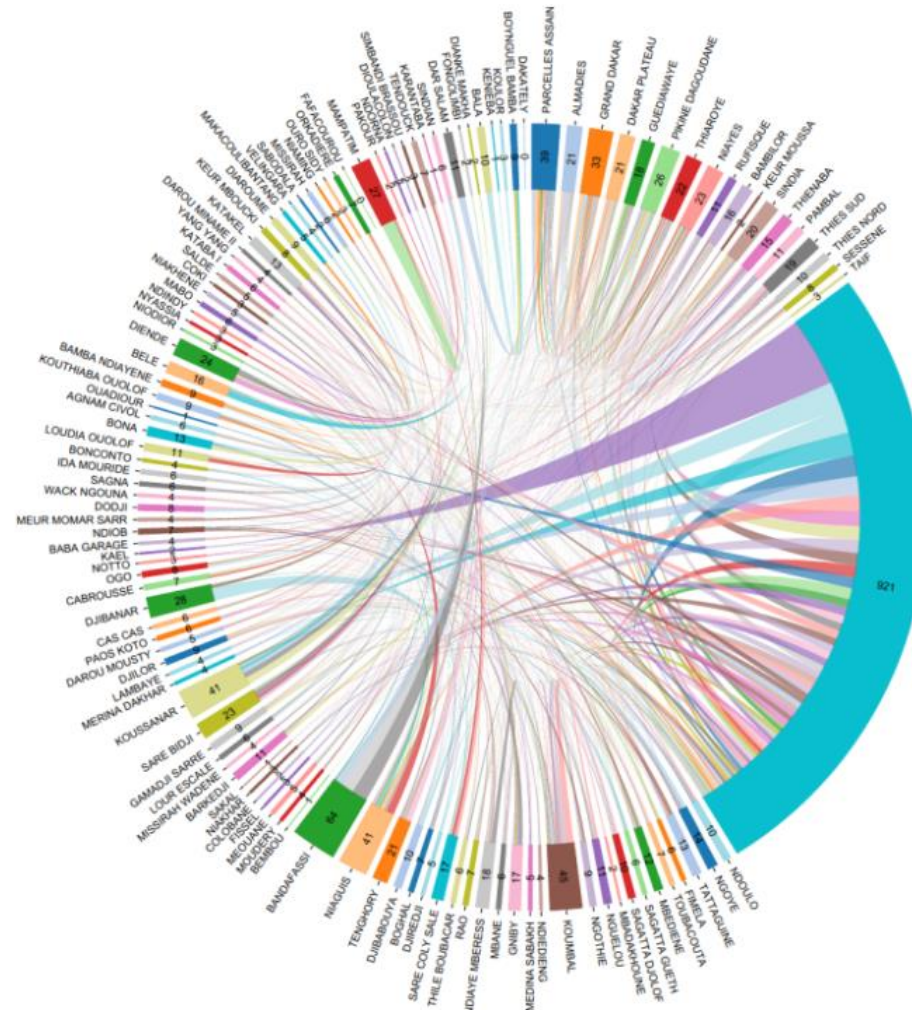


FLOOD WEEKS





PARTNERS: UN WORLD FOOD PROGRAMME, UNIVERSIDAD POLITECNICA DE MADRID
PROGRAMME AREA: FOOD & AGRICULTURE





**“THE DATA REVOLUTION IS GIVING THE
WORLD POWERFUL TOOLS THAT CAN HELP
USHER IN A MORE SUSTAINABLE FUTURE.”**

- BAN KI-MOON, UN SECRETARY-GENERAL