



**RESEARCH
PROGRAM ON**
Policies,
Institutions
and Markets

LED BY IFPRI 



CGIAR CSI
Consortium for Spatial Information

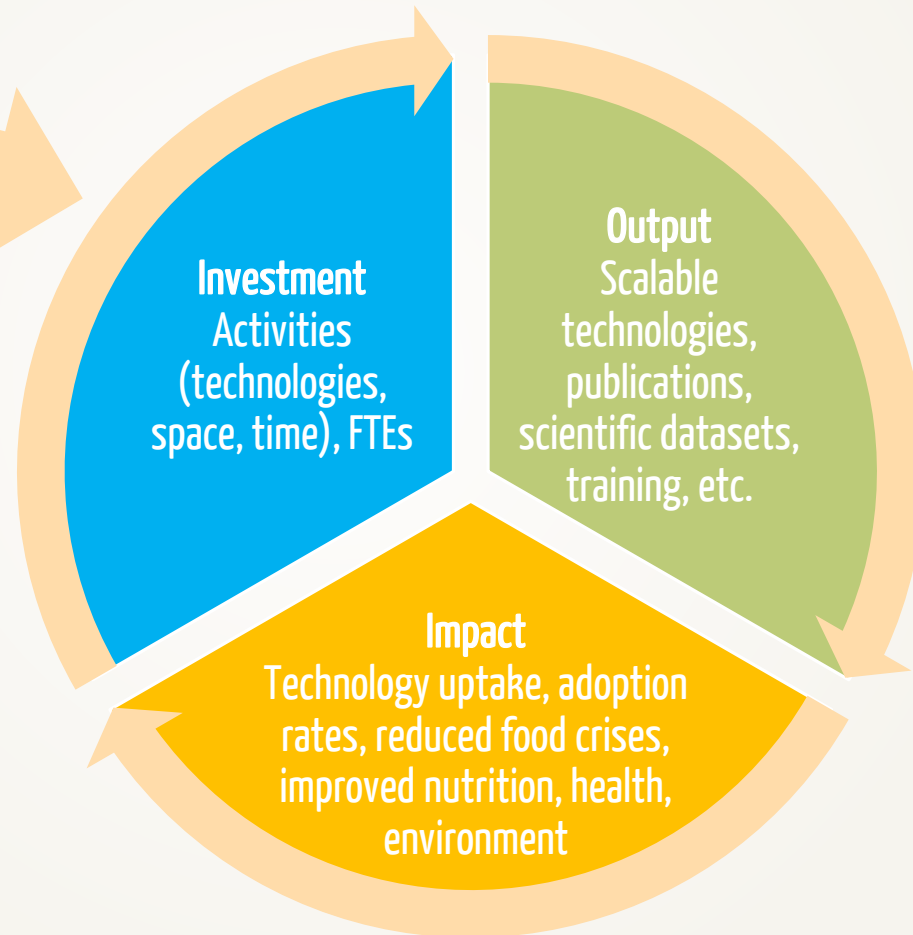
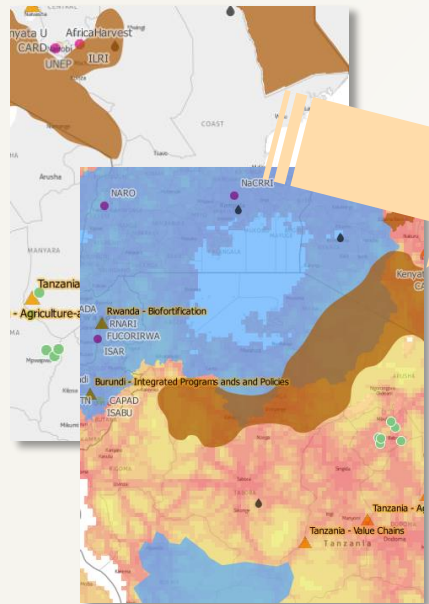
Mapping Agricultural Investments and Technologies

MAPPING THE LOCATION AND REACH OF CGIAR RESEARCH PROGRAMS
FOR IMPROVED PLANNING AND TARGETING.

Improving Semantics in Agriculture Workshop, FAO, July 2-3, 2015

<http://aims.fao.org/agrisemantics-workshop-2015>

Provide Evidence along the R&D Input-Output Continuum...



Rationale

- ✓ Provide the CG System and our partners with simple **investment indicators**:
 - Location of R&D focus areas, programs, and actors
 - Count of activities, allocated budget by activity, with additional allocation across **Common IDOs and CRP IDOs**, commodity **value-chains**, and **technologies**
 - Support for investment analysis and targeting with partners (identify gaps and opportunities to foster partnerships at regional, national, and local scale)
- ✓ Align with CGIAR **Open-Access Policy** and contribute to **agricultural data-sharing standards**
- ✓ Contribute to building a spatially-referenced **inventory of CGIAR technologies** and research methods

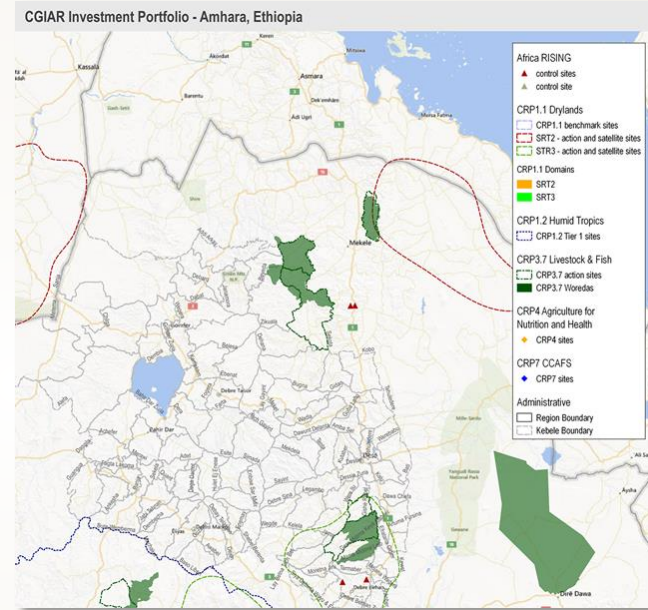
Support Investment targeting at regional and local scales



Nicaragua, April 28, 2014

CIAT, CIP, CIMMYT, ICRAF, CIRAD, CATIE, CRS, BIOVERSITY: How to better integrate CRP activities in Central America?

64 activities cataloged and mapped/1 day



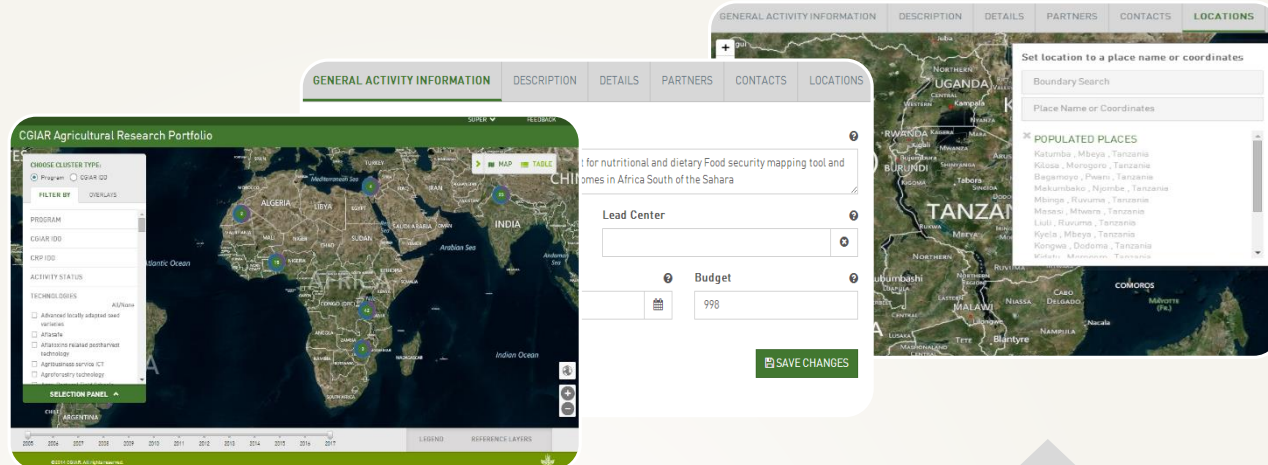
Addis, May 12, 2014

ILRI Mapathon: mapping CGIAR activities in the Horn of Africa.

20 participants (ILRI, ICRAF, IWMI, ICARDA, CIP), data-entry is on-going!

CGIAR Investment Mapping Tool

<http://54.83.200.172/crp-pmtv/>



Linked open data, RDF
<http://data.ifpri.org/iod/at>



CGIAR ArcGISOnline
<http://csi.maps.arcgis.com/>



Harmonized country-level and activity-level investment indicators
[http://public.tableausoftware.com/views/CRPs byCountryJun2014/World?&:showVizHome=no](http://public.tableausoftware.com/views/CRPs%20byCountryJun2014/World?&:showVizHome=no)

Workstreams

Curation
Data Linking
Publishing

Data Standardization
IATI, AGROVOC, Crop
Ontology Tool, CGIAR Data
Standards WG

Cataloging
Publishing

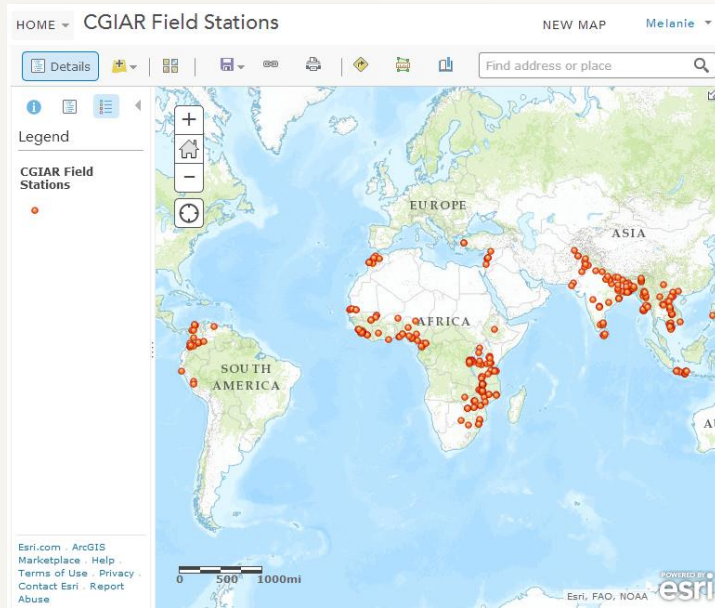
CGIAR/CRP Agricultural
R&D Domain Mapping
CSI reps, CGIAR GIS
Analysts

Harmonization
Geocoding

Unstructured Country-
level Geocoding
CRP annual progress
reports, PoWBs, CRP
websites, etc.

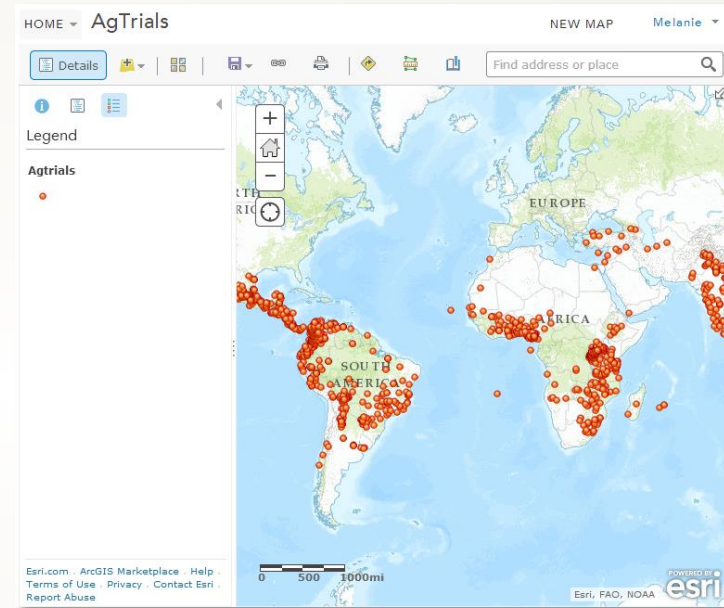
Structured Activity-level
Geocoding
Worksheets, workshops,
project websites

Locations of CGIAR Research Stations



CGIAR Research Stations (May, 2014)

<http://csi.maps.arcgis.com/home/webmap/viewer.html?webmap=363f575f3a134a45b2804327c1d236b8>

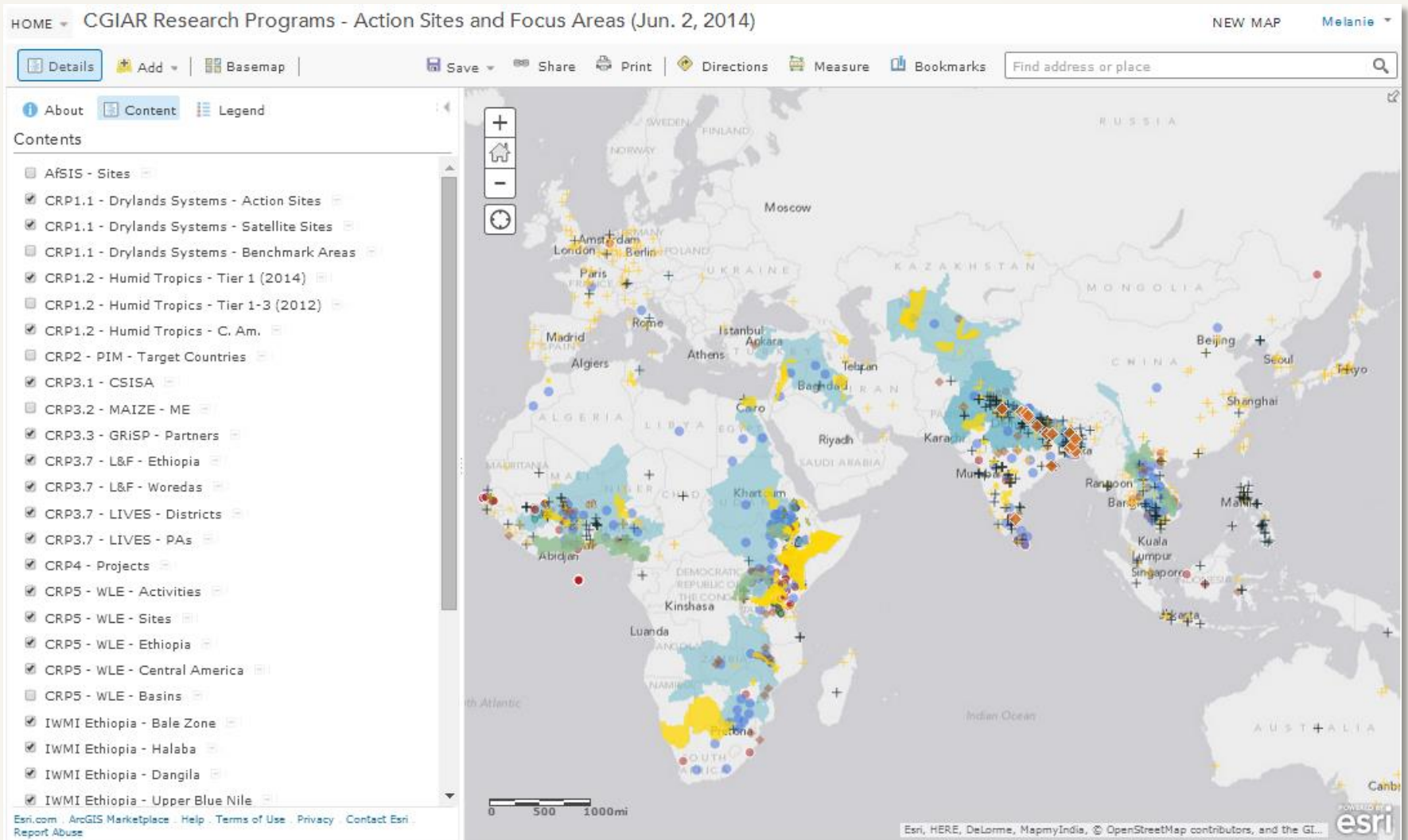


AgTrials Sites (May, 2014)

<http://csi.maps.arcgis.com/home/webmap/viewer.html?webmap=0bb072e3bd5a498d91e6191b59624e66>

CRP Action Sites and Focus Areas

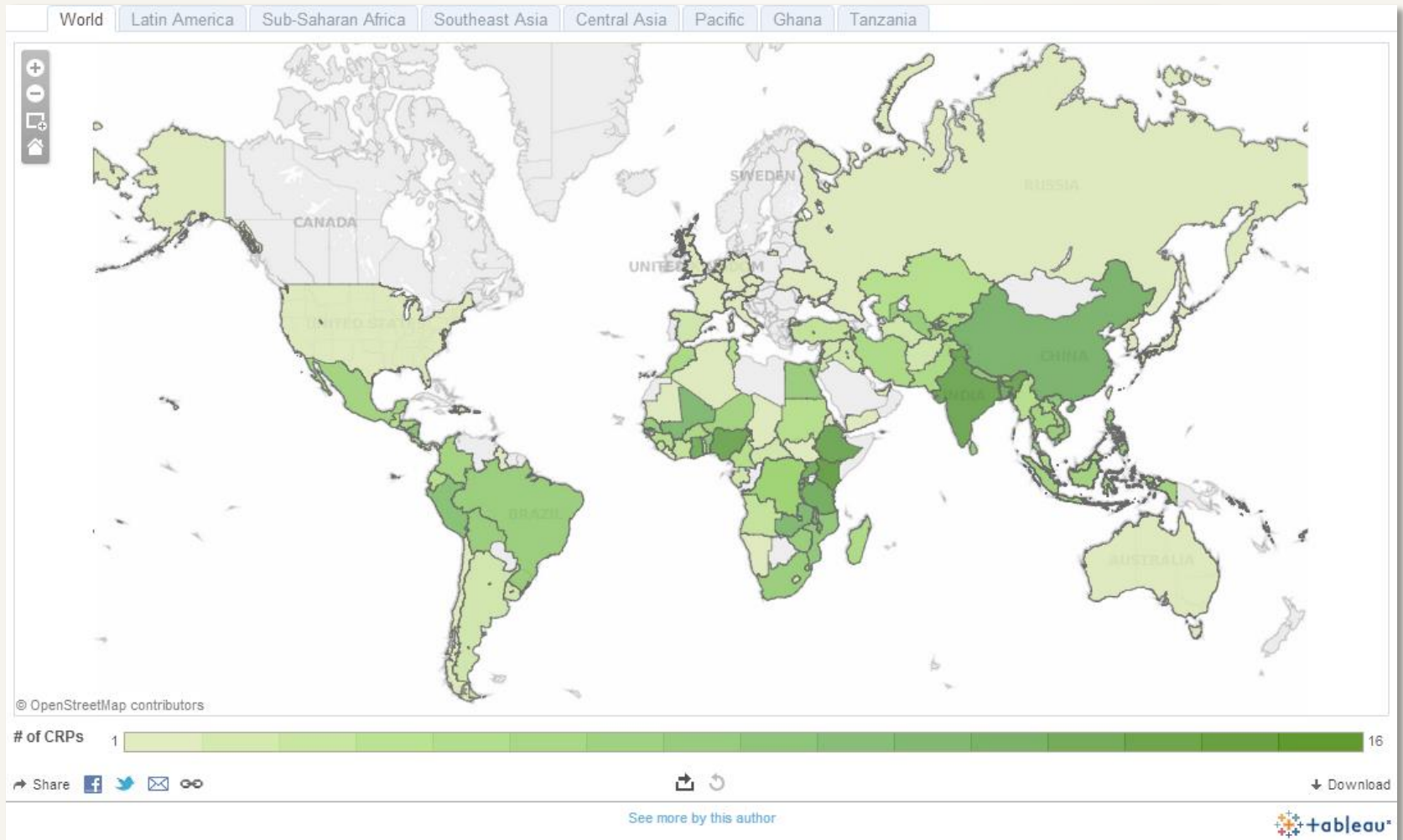
<http://csi.maps.arcgis.com/home/webmap/viewer.html?webmap=1fd97e26f6124792bac11ba527511674>



CGIAR R&D Spatial Footprint: country-level

<https://hc.app.box.com/s/39pgky4jn1frrek30d8z> (print, as of Nov. 2013)

<http://public.tableausoftware.com/views/CRPsbyCountryJun2014/World?&:showVizHome=no> (interactive, as of Jun. 2014)



Harmonized Vocabularies

- **Strategic themes:** CGIAR SLOs, System and CRP IDOs
- **Target technologies:** draft ontology is now at <http://data.ifpri.org/lod/at> (needs expert review from KM Leaders and/or Data Standards Working Group) with latest version at <http://webprotege.stanford.edu/#Edit:projectId=38d16b2b-5bce-4863-bd64-bfd12b1b00ec>
- **Target commodities:** currently using FAO/AGROVOC commodity names
- **Organizations:** harmonized organization/partner identifiers now using CGIAR RDF at <http://open.cgiar.org/institutions.rdf>
- **Collaboration types:** 1-Bilateral, 2-Multilateral, 201-CGIAR Window-1/2, 202-CGIAR window-3, 101-CGIAR Bilateral, 3-Bilateral, core contributions to NGOs and other private bodies / PPPs, 4- Multilateral outflows, 6- Private sector outflow
- **Location reach:** 100-Activity or Intervention, 101-Conference, Meeting, Workshop, or Training Event, 102- Partners, 103- Permanent Agricultural Trial Site, 200-Potential beneficiaries
- **Location precision:** 101-Multi-Country, 102-Country (level-0), 103-Province (level-1), 104-District (level-2), 105-Ward (level-3), 200-Populated Place, 301-CGIAR Center, 302-Permanent Agricultural Trial Site, 300-Structure (other), 401-River Basin, 402-Other CGIAR Research Area, 400-Other Topographical Feature



Global Reach

Bank IFC MIGA



Home



Share



Recent



Global



Region



Country



Global Practice

Global / All Projects

683 projects totalling \$53.20b operating in 8,872 locations across 124 countries

Agriculture x

Water x

Environment & Natural Resources x

Health, Nutrition & Population x

Poverty x



Table View



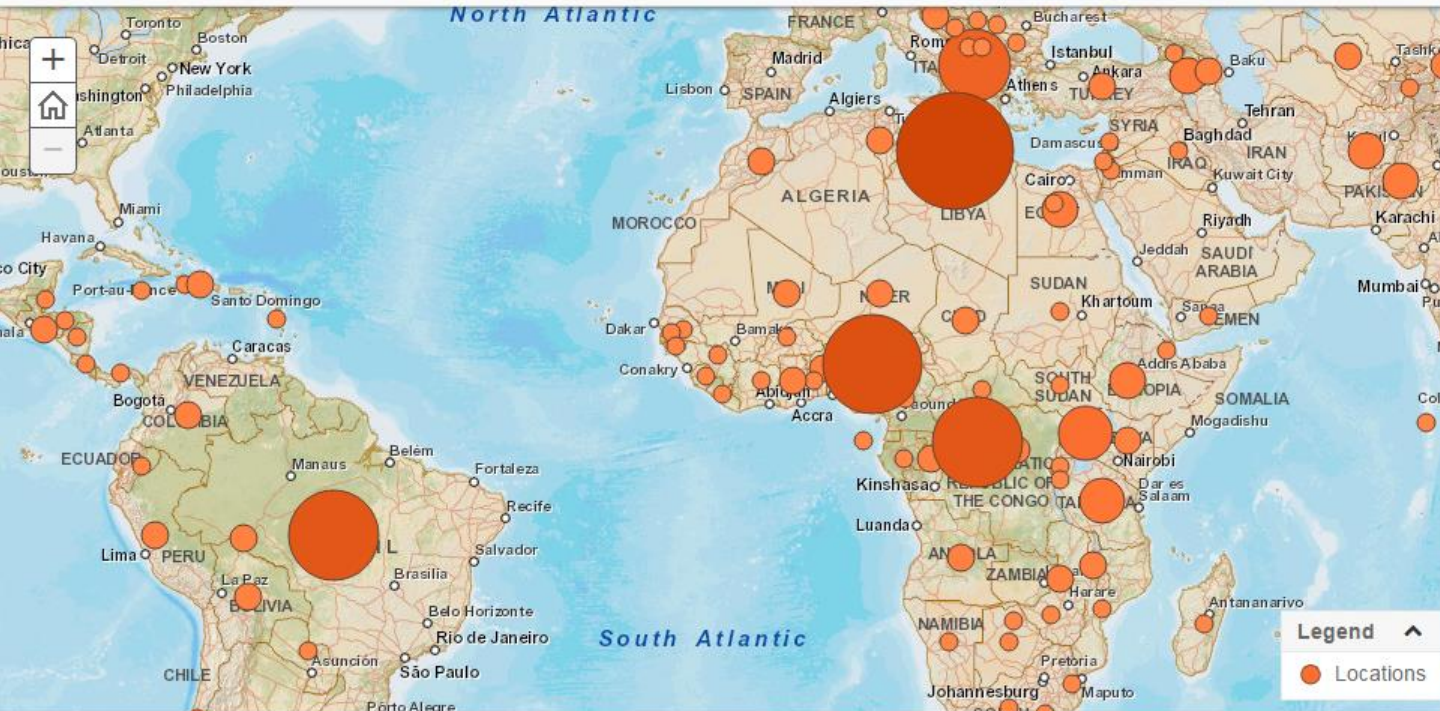
Layers



Map Style



Refine



Refine By

GP

- ☐ Transport & ICT (233)
- ☐ Energy & Extractives (230)
- ☐ Social, Urban, Rural and Re... (208)
- ☒ Environment & Natural Reso... (190)
- ☒ Water (190)
- ☒ Agriculture (186)
- ☐ Education (143)
- ☒ Health, Nutrition & Population (107)
- ☐ Social Protection & Labor (87)
- ☐ Governance (80)
- ☐ Finance & Markets (52)
- ☐ Trade & Competitiveness (52)
- ☒ Poverty (10)
- ☐ Macro Economics & Fiscal Ma... (7)
- ☐ Other (1)

Show less -

CCSA

Disclaimer: Country borders or names do not necessarily reflect the World Bank Group's official position. This map is for illustrative purposes and does not imply the expression of any opinion on the part of the World Bank, concerning the legal status of any country or territory or concerning the delimitation of frontiers or boundaries.

World Bank Global Reach

683 projects totaling \$53.20b operating in 8,872 locations across 124 countries

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

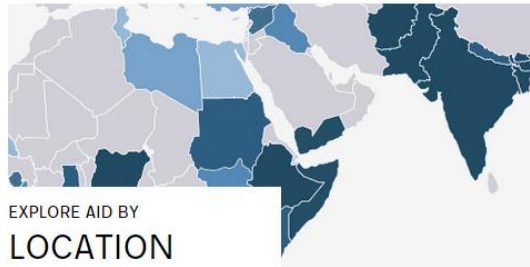
Follow how the UK invests in developing countries



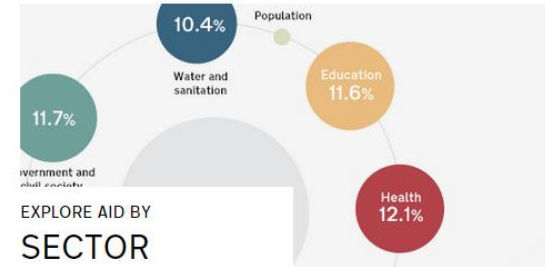
Search Projects

e.g. location, sector, organisation or keyword

Search



EXPLORE AID BY
LOCATION



EXPLORE AID BY
SECTOR

UK AID TOP 5s

Top 5 places we work

Pakistan
£393.11m

Nigeria
£231.3m

Sierra Leone
£217.32m

Tanzania
£189.73m

Kenya
£163.04m

Project budgets for each country [FY15/16]

Top 5 things we do

Health
£1011.3m

Disaster
£844.8m

Environment
£545.9m

Education
£500.6m

Multisector
£435.7m

Project budgets for each sector [FY15/16]

Top 5 things we achieve

People with choice and control over their own development
85,806,000

People with access to financial services
54,450,000

Women and girls with improved access to security and justice services
10,778,000

People benefiting from cash transfer programmes
6,655,000

Births delivered with the help of nurses, midwives or doctors
3,582,000

Results achieved (up to 2013/14 inclusive) from DFID Annual Report 2013-14

DFID
Development
Tracker

Agriculture: 2.62%
totaling £208.9m

<http://devtracker.dfid.gov.uk/>

ABOUT ▾

DATA ▾

INNOVATION ▾

MAPS

RESEARCH ▾

LOG IN

GIS MAP

map filters

map layers

reset

share

Use the search interface to create your own unique map, share a map with colleagues, and tell your story.

Recipient (0/255)

Donor (0/175)

Sector (109/784)

Year (0/70)

Commitment (0/6)

Disbursement (0/6)

Keyword Search

Enter Keyword

Sector (4/44)

- ☐ All/None
- ☐ 240 : Banking And Financial Services
- ☐ 250 : Business And Other Services
- ☒ 310 : Agriculture, Forestry, Fishing
- ☒ 311 : Agriculture
- ☒ 312 : Forestry
- ☒ 313 : Fishing
- ☐ 320 : Industry, Mining, Construction
- ☐ 321 : Industry
- ☐ 322 : Mining, Quarrying, And Extraction

Purpose (25/196)

- ☐ All/None
- ☐ 11000 : Education, Combinations Of Purposes
- ☐ 11100 : Education, Level Unspecified, Combinations Of Purposes
- ☐ 11105 : Education, Level Unspecified, Purpose Unspecified Or Does Not Fit Under Any Other Applicable Codes
- ☐ 11110 : Education Policy And Administrative Management
- ☐ 11120 : Education Facilities And Training

Activity (80/544)

- ☐ All/None
- ☐ 11105.01 : Education, Level Unspecified, Activity Unspecified Or Does Not Fit Under Any Other Applicable Codes
- ☐ 11110.01 : Education Policy And Administrative Management, Activity Unspecified Or Does Not Fit Elsewhere In Group
- ☐ 11110.02 : Education Sector Policy, Planning And Programmes
- ☐ 11110.03 : Institution Capacity Building, Education

Cancel

Reset Filters

Render Map

Basemaps

Legend

Esri, DeLorme, FAO, NOAA

EXPLORE AN AIDDATA THEMATIC MAP

AidData

<http://aiddata.org/gis>

Interactions NGO Aid Map

696 Agriculture projects in 78 countries

<http://www.ngoaidmap.org/>



IATI-driven R&D Mapping

**International Aid
Transparency Initiative:**
multi-stakeholder (over
160 organizations)
launched in Ghana, 2008.

IATI largely builds on
OECD/DAC coding
standards.

However, generally poor
coverage and details on
agriculture.

<http://iatistandard.org/>

<https://github.com/IATI/IATI-Codelists>



AID TRANSPARENCY INITIATIVE

Getting Started

The IATI Standard >

> Getting Started

> The IATI Organ

> Datastore

> The IATI Activ

- Overview

- IATI Activities

- IATI Activity

- Reporting Orga

- IATI Identifier

ON THE IATI

A screenshot of the GitHub repository page for 'IATI / IATI-Codelists'. The page shows the repository name, a description, and statistics (193 commits, 6 branches, 3 releases, 5 contributors). A list of recent commits is displayed, including updates to CHANGELOG.md, CONTRIBUTING.rst, LICENSE, README.rst, and various XML and JSON files. The 'README.rst' section is expanded, showing the 'IATI Codelists' title, a 'build' button, and an 'Introduction' section. The introduction states that the repository contains the codelists for the IATI Standard and is part of the Single Source of Truth (SSOT). It also mentions that the repository is currently under development and does not necessarily represent any current or future version of the IATI standard. The 'The Codelists' section explains that the source codelists can be found in the 'xml' directory. The 'Embedded vs NonEmbedded Codelists' section states that the repository contains only codelists that are embedded in the IATI Standard, meaning that IATI is directly responsible for them and any changes need to go through the same change control process as other changes to the standard.

IATI Geography Element

Using 5 codelists and references to existing spatial vocabularies (FAO GAUL administrative boundaries, Geonames, CRS, etc.)

<http://iatistandard.org/201/codelists/GeographicVocabulary/>

- Budget Identifier Sector (category)
- Budget Identifier Vocabulary
- Budget Type
- CRS Additional Other Flags
- Collaboration Type
- Condition Type
- Contact Type
- Country
- Currency
- Description Type
- Disbursement Channel
- Document Category
- Document Category (category)
- File Format
- Finance Type
- Finance Type (category)
- Flow Type
- Gazetteer Agency
- Geographic Exactness
- Geographic Location Class
- Geographic Location Reach
- Geographic Vocabulary
- Geographical Precision
- IATI Organisation Identifier
- Indicator Measure
- Language
- Loan Repayment Period
- Loan Repayment Type
- Location Type

Codes

Code	Name	Description	URL
A1	Global Administrative Unit Layers		http://www.fao.org/geonetwork/srv/en/metadata?id=12691
A2	UN Second Administrative Level Boundary Project	Note: the unsalb.org website is no longer accessible, and public access to the boundaries resources has been removed http://www.ungiwg.org/content/united-nations-international-and-administrative-boundaries-resources	http://www.unsalb.org/
A3	Global Administrative Areas		http://www.gadm.org/
A4	ISO Country (3166-1 alpha-2)		http://www.iso.org/iso/country_codes.htm
G1	Geonames		http://www.geonames.org/
G2	OpenStreetMap	Note: the code should be formed by prefixing the relevant OpenStreetMap ID with node/ way/ or relation/ as appropriate, e.g. node/1234567	http://www.openstreetmap.org/

Last updated on 2015-01-21

IATI-Ready Data Schema

CGIAR/CRP Attribute	Details	IATI	Codes
CRP Activity	Code (internal CRP code) Title	<other-identifier> <title>	
Location(s)	Geocodes (GAUL 2012 eds. 2013 adm-2 codes)	<location><administrative @level="2" @vocabulary="A1" @code>	https://docs.google.com/spreadsheet/ccc?key=0An/n/gmdQt3stdFNxVS1NdmpzSnR3aTBmUG1OWS1uZXc&usp=drive_web#gid=5
	Location Reach (1 of 4 codes: 1- Action/intervention, 2-Potential beneficiaries, 101- Partner organization, 102-Experimental farm or	<location><location-reach @code>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_location_reach.csv
	Location Precision	<location><location-class>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_location_class.csv
Budget	Value	<budget><value>	
	Period	<budget><period-start><period-end>	
	Currency code	<budget><value currency="">	
	Collaboration type	<CollaborationType>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_collaboration_type.csv
Program	CRP or other (from list)	n/a	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_programs.csv
Strategic Theme	CGIAR SLO (from list)	n/a, but related to <sector>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_slos.csv
Development Outcome(s)	CGIAR IDOs (from list)	n/a, but related to <sector>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_ido.csv
	CRP IDOs (from list)	n/a, but related to <sector>	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/crp_ido.csv
Target Technologi(es)	(Eventually avail. in AGROVOC ontology branch)	n/a	https://github.com/harvestchoice/hc-crp/blob/master/vocabularies/cg_technologies.csv
Commoditi(es)	(AGROVOC ontology branch)	n/a	http://aims.fao.org/node/2328?mytermcode=8171&mylang_interface=&myLanguage=EN
Document(s)	(start with http://)	<document-link>	
Project Website(s)	(start with http://)	<activity-website>	
Source	Source of information and geocodes	n/a	Typically link to source document, or contact e-mails, or date
Remarks	Any additional notes	n/a	
Internal Status	1 of 4 status codes: 0-draft, 1-under review, 2-validated, 3-retired	n/a, but related to <VerificationStatus>	http://iatistandard.org/codelist/verification_status/

CGIAR Research Portfolio

<http://where.cgiar.org/>

The screenshot displays the CGIAR Agricultural Research Portfolio web application. The interface includes a top navigation bar with 'SUPER' and 'FEEDBACK' links. Below this is a header 'CGIAR Agricultural Research Portfolio'. The main area features a map of East Africa with research activity clusters. A left sidebar contains a 'CHOOSE CLUSTER TYPE' section with radio buttons for 'Program' (selected) and 'CGIAR IDO'. Below this is a 'FILTER BY' section with tabs for 'OVERLAYS' and 'SELECTION PANEL'. The 'OVERLAYS' section lists various filters: 'PROGRAM', 'CGIAR IDO', 'CRP IDO', 'ACTIVITY STATUS', and 'TECHNOLOGIES'. The 'TECHNOLOGIES' section includes checkboxes for 'Advanced locally adapted seed varieties', 'Atlasafe', 'Matoxins related postharvest technology', 'Agribusiness service ICT', 'Agroforestry technology', and 'Agro-Pastoral Field Schools'. The 'SELECTION PANEL' is currently collapsed. The map shows clusters in Kenya (labeled '21') and Tanzania (labeled '7'). A right sidebar displays a summary for a selected activity, showing '1 of 7' items, a 'Title', and a 'Description'. The bottom of the interface includes a timeline from 2005 to 2017, a 'LEGEND', and 'REFERENCE LAYERS'. Annotations with dashed lines point to various features: a yellow dashed line points from the 'TECHNOLOGIES' filter to the text 'Clustered view of research activities by CRP, by Common IDO, across technology, etc.'; a yellow dashed line points from the 'OVERLAYS' tab to the text 'Filter and save/export activities across key dimensions'; a yellow dashed line points from the map to the text 'Overlay socio-economic and biophysical maps'; a yellow dashed line points from the right sidebar to the text 'Explore activity partners and contact details'; and a blue dashed line points from the 'SUMMARY' tab to the text 'View activity summaries across zones (not yet implemented)'.

CGIAR Agricultural Research Portfolio

CHOOSE CLUSTER TYPE:
☒ Program ☐ CGIAR IDO

FILTER BY OVERLAYS

PROGRAM

CGIAR IDO

CRP IDO

ACTIVITY STATUS

TECHNOLOGIES

☐ Advanced locally adapted seed varieties

☐ Atlasafe

☐ Matoxins related postharvest technology

☐ Agribusiness service ICT

☐ Agroforestry technology

☐ Agro-Pastoral Field Schools

SELECTION PANEL

1 of 7

Title:

Description:

This activity focuses on understanding constraints faced by African smallholders in technology adoption and agricultural growth by conducting case studies in selected four African countries. The activity also pays attention to other developing countries™ experience and lessons. While recent experience of private-sector led mechanization in smallholder dominant Chinese agriculture will be part of the research under this

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

LEGEND REFERENCE LAYERS

© 2014 CGIAR. All rights reserved.

Clustered view of research activities by CRP, by Common IDO, across technology, etc.

Filter and save/export activities across key dimensions

Overlay socio-economic and biophysical maps

Explore activity partners and contact details

View activity summaries across zones (not yet implemented)

From worksheets to robust interactive data-entry tools

New web-based tool:

- Provides robust data validation
- Geocoding is built-in and simple
- No further data transformation required

Early website release at <http://pmte.cgiar.org/>

CGIAR PDE 1.0 ALPHA SITE

SUPER ▾ HELP ▾ FEEDBACK

← Back To Program List

GENERAL ACTIVITY INFORMATION DESCRIPTION DETAILS PARTNERS CONTACTS LOCATIONS

Program
CGIAR - Agriculture for Nutrition and Health

ACTIVITIES (65)

Food security mapping tool and household-level dataset for nutritional and dietary outcomes in Africa South of the Sahara

Research and capacity strengthening on food and nutrition security, agriculture-nutrition linkages, and value chains from nutrition and food safety perspective in Central Asia

Research and capacity strengthening on food and nutrition security, agriculture-nutrition linkages, and value chains from nutrition and food safety perspective in Central Asia

Preventing malnutrition in children under 2 years PM2A

Activity Title *
Food security mapping tool and household-level dataset for nutritional and dietary outcomes in Africa South of the Sahara

Activity Code
A4NH-29

Lead Center
International Food Policy Research Institute (IFPRI)

Start Date
01-07-2013

End Date
01-04-2014

Budget
998

ARCHIVE THIS ACTIVITY

SAVE CHANGES

© 2014. ALL RIGHTS RESERVED.

CGIAR

Search through existing activities across programs

Simplified editing tools and workflow

From worksheets to robust interactive data-entry tools

New web-based tool:

- Provides robust data validation
- Geocoding is built-in and simple
- No further data transformation required

Early website release at <http://pmte.cgiar.org/>

The screenshot displays the 'CGIAR PDE 1.0 ALPHA SITE' interface. The top navigation bar includes 'SUPER', 'HELP', and 'FEEDBACK'. The main menu has tabs for 'Back To Program List', 'GENERAL ACTIVITY INFORMATION', 'DESCRIPTION', 'DETAILS', 'PARTNERS', 'CONTACTS', and 'LOCATIONS'. The 'LOCATIONS' tab is active, showing a map and a 'Set location to a place name or coordinates' search box. A 'Location Attributes' modal form is open, containing sections for 'Location Reach' (with a dropdown for 'Intended Beneficiaries') and 'Location Precision' (with a dropdown for 'Permanent Agricultural Trial Site'). The background shows a list of activities on the left and a map on the right.

2) Alternatively, use familiar drawing tools to locate specific points or areas.

1) Search map for administrative names, place names, or other known locations

3) Specify a location reach and location precision.

Thank You

Direct questions to
Melanie Bacou (IFPRI)
mbacou@cgiar.org and
Glenn Hyman (CIAT)
g.hyman@cgiar.org.



The screenshot shows the CGIAR CSI website. At the top, there is a navigation bar with links for 'About', 'Reps', 'Data', 'Portfolio', 'Meetings', 'Blog', 'Publications', and 'Forum'. The CGIAR CSI logo is prominently displayed. Below the navigation bar, a large banner image features a close-up of tortillas cooking on a roaster over a fire. Overlaid on the left side of the banner is a blue box with the text 'CENTRAL AMERICAN MAIZE-BEAN SYSTEMS AND THE CHANGING CLIMATE'. Below this, a smaller blue box contains the text 'Tortillas on the Roaster'. The main content area below the banner contains a paragraph about CGIAR and the Consortium for Spatial Information (CGIAR-CSI). At the bottom, there are four sections for datasets: 'Datasets' (with a link to 'View all our datasets'), 'CRU-TS v3.10.01 Historic Climate Database for GIS', 'Global Aridity and PET Database', and 'SRTM 90m Digital Elevation Database v4.1'. Each dataset section includes a small thumbnail image.

About Reps

CGIAR CSI
Consortium for Spatial Information

Data Portfolio Meetings Blog Publications Forum

CENTRAL AMERICAN MAIZE-BEAN SYSTEMS AND THE CHANGING CLIMATE

Tortillas on the Roaster

The [CGIAR](#) is a global partnership of research organizations dedicated to reducing poverty and hunger, improving human health and nutrition, and enhancing ecosystem resilience through agricultural research. **Consortium for Spatial Information** (CGIAR-CSI) is spatial science community that facilitates CGIAR's international agricultural development research using spatial analysis, GIS, and remote sensing.

Datasets
Showcase of popular spatial datasets shared by CGIAR-CSI Community
[View all our datasets](#)

CRU-TS v3.10.01 Historic Climate Database for GIS

Global Aridity and PET Database

SRTM 90m Digital Elevation Database v4.1

Visit <http://www.cgiar-csi.org/>.