

Updates from agricultural research in Africa

### Connecting the dots: Online maps for improved access to information on agricultural research projects



A month ago if anyone wanted to get an overview of the research that the 15 international agricultural research centres of the CGIAR were doing in eastern and southern Africa it would have been a difficult, time consuming undertaking of uncertain outcome. Today, say the developers of the first 'CGIAR research map,' it is a matter of three clicks on the internet. Having such information readily and easily accessible, contend the developers, doesn't just satisfy the curiosity of information hungry browsers, it is a keystone to fostering complementary research. It also helps in building networked and collective responses to complex challenges that a single project could not address, and directing investments to areas that seem to hold greater promise or that have been ignored. Finding out just how much interesting research is taking place is kind of fun too!

For several years now successive reviews of the Consultative Group for International Agricultural Research (CGIAR) in Africa have pointed out problems of redundancy, overlap and competition among research projects. While a number of suggestions on how to improve and restructure the organization of research resulted from these review, surprisingly little attention was paid to the fact that lack of ready access to project information might be one of the root causes of some of the inefficiencies. It was perhaps in this regard that the CGIAR's Sub-Saharan Africa Task Forces in their Tervuren Consensus in 2005 called for "effective arrangements for monitoring, evaluating and improving the quality, appropriateness and impact of the research activities of the CGIAR Centers in SSA".

Coming from separate origins, two initiatives of the CGIAR focused on improving the information available for decision making and investment in research. The ICT-KM Program of the CGIAR, responding to a demand articulated by the CGIAR Secretariat, the 15 Centers and the Science Council of the CGIAR, was undertaking to create a Web based platform for the medium term planning process for the whole CGIAR system. This platform, CGMap, provides a "map" that allows easy navigation through information on research and research-related activities that the CGIAR Centers and Challenge Programs publish in their Medium Term Plans (MTPs) every year. Spanning a three-year period, MTPs describe the research agenda of each Center and Program in relation to CGIAR System priorities. The premise underpinning the design of such a synoptic system is the adoption of common information and knowledge standards for the whole of the CGIAR. The first step was to turn the Science Council's guidelines into a formal structure for collecting information by developing a standardized set of descriptors for projects. The next step was to identify the pieces of descriptive information (metadata) that would make searching and aggregating project information meaningful and useful. An early challenge in this regard, was arguing that project descriptions needed to include standardized information on the countries in which they were taking place. Spatial reference to the project information was considered indispensable, if the system was to answer the kinds of questions that users were likely to pose. This required a broad consultation process with Centre representatives, the Secretariat of the CGIAR and its Science Council, in order to reach agreement on the kind of geographical information that would be used in the Medium Term Plans.

At roughly the same time the Regional Plan for Collective Action was facing another challenge in eastern and southern Africa, how to foster collective action when it wasn't really clear what research was taking place in the region? The solution was to create a database of all the research that was taking place, but in order to make this a tractable process it was decided that the database would only seek to answer the question: 'Who is doing what, with whom and where?' The first version of the database was created in mid 2007. While it answered the question within stipulated expectations for quality, it was not really accessible to anyone other than those that had created it. So in 2008 it was decided to make the database accessible through the World Wide Web. A conversation on the sidelines of a FARA-CGIAR meeting in Accra, in September 2008, convinced the developers of CGMap and the Regional Research Map that joining forces would make eminent sense.

A scant five months later the database exists on the Web as an interactive and easy to navigate map, which provides a geographical overview of where research projects are carried out (see figure). To facilitate collaboration, the information provided also includes the contact address of the scientist concerned; projects are also linked to the Medium Term Plans of the relevant CGIAR Centres. In addition the map allows participating scientists to update their project information directly online and in real time.

The developers intend to monitor use of the information and the demands of the users, so that the resource should evolve and develop in the future. They also intend to link research findings and outcomes to the map as a means of accelerating technology dissemination in the region. Their aim, ultimately, is to extend the positive aspects of the 'map' to other organizations that are managing or supporting agricultural research in Sub-Saharan Africa, encouraging them to develop and manage their own web based research maps. Eventually what might emerge is a distributed, but linked information system that truly provides an easily accessible overview of agricultural research, researchers and research partners in the giant innovation system that is Africa.

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CGMap: http://cgmap.cgiar.org/

CGIAR Research Map in Eastern and Southern Africa: http://ictkm.cgiar.org/cgmapTemplate/ESA.html Regional Plan: http://www.ilri.org/regionalplan/index.php

 $Report\ of\ the\ CGIAR's\ Sub-Saharan\ Africa\ Task\ forces:\ www.cgiar.org/exco/exco8/exco8_ssa\_tf\_report\%20.pdf$ 

The collective action underpinning the 'map': The ICT-KM program (design, project management), Bioversity, IRRI, CIAT (technical development of EasyMTP and CGMap), Alliance of the CGIAR & Science Council (technical guidance), CG Secretariat (funding and guidance). The research database for eastern and southern Africa resulted out of the collaboration of 14 CGIAR centres and over 300 scientists working in the region, who have devoted between 10 and 15 minutes each year to contribute information on their research projects to the database since 2007.

# Newsbytes Information and Data Resource

## **Sharing**

Over the past year, the GIS Unit of the ILRI-ICRAF Research Methods Group (RMG) has managed to acquire a state of the art server whose aim is to fulfil part of the unit's mandate of managing and disseminating information on data resources. It has in the recent past taken steps towards that direction by deploying a metadata management system (http:// geonetwork.ilri.org) that offers a free text search on the datasets in the possession of the unit and through this links to other sources such as the web based database (www.ilri.org/gis). Also available is an ArcGIS Server centralised system that provides Web-oriented spatial data services together with an ArcSDE Geodatabase available to internal users. The unit is currently in the process of integrating Google Earth / Maps as a complimentary source of sharing our data resources.

#### AGCommons launched

AGCommons has been launched under the administrative oversight of the CGIAR, in partnership with CH2M HILL and the International Institute for Geo-Information Science and Earth Observation (ITC). It is sponsored by the Bill & Melinda Gates Foundation, which has initiated a Geospatial Technology Program through the Agricultural Development initiative of its Global Development Program. AGCommons' goal is to support innovation in the development, delivery and use of locationspecific data and information services for improved decision making by smallholder farmers in sub-Saharan Africa, as well as by the public institutions and private sector who serve them. ( http://www.

### Africa Geospatial week: mapping our future

CGIAR's Consortium on Spatial Information (CSI) will hold its annual meeting "Mapping our Future" in Nairobi 31st Mar – 4th April 2009. The meeting is organized in partnership with the newly launched "Geospatial Technology for Agricultural Development in Africa" program (AGCommons). Two days will be dedicated to CSI's vision and strategy, and a full day to develop specific recommendations for AGCommons Phase II.

A novel feature of this CSI meeting will be Africa's first "Where Camp" (4th April in Nairobi) - an open, participatory format spatial technology and application day long event, sponsored and led by AGCommons.( http://www.wherecampafrica.org)

COLLECTIVE ACTION NEWS is a periodical e-publication of the CGIAR's Regional Plan for Collective Action in Eastern and Southern Africa, hosted at the International Livestock Research Institute and the World Agroforestry Centre, both of which are supported by the Consultative Group on International Agricultural Research (CGIAR)

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