

CGIAR Platform for Big Data in Agriculture

Transforming rural livelihoods with the power of information



Data has become a valuable global commodity. But it is much more than simply information: in expert hands, it is intelligence. From forecasting presidential elections to predicting disease outbreaks, analysts are finding ways to turn big data – the immense stocks of information collected in computers worldwide – into an invaluable resource for planning and decision-making.

Big data has the potential to solve development problems cheaper, faster, and more effectively

From food insecurity and malnutrition, to climate change and environmental degradation, big data is already helping accelerate the development of robust responses to some of the most pressing challenges of our time. It is transforming the world of genomics and crop breeding, and revolutionizing disciplines from climate modelling to agronomy. It is helping refine policies and improve lives.

The smart, and effective use of data will be one of the most important tools for achieving the United Nations' Sustainable Development Goals. Big data represents an unprecedented opportunity to find new ways of reducing hunger and poverty, by applying data-driven solutions to ongoing research for development impact.

Our objectives – Organize, Convene, Inspire!

The ultimate goal of the CGIAR big data Platform is to harness the capabilities of big data to accelerate and enhance the impact of international agricultural research. This six-year initiative (2017–2022) will provide global leadership in organizing open data, convening partners to develop innovative ideas, and demonstrating the power of big data analytics through inspiring projects.



Organize – Support and improve data generation, open access, and management

Provide support to CGIAR and partners to fully comply with open data / open access principles, to address technical and organizational challenges, and to enable researchers to strengthen data analytical capacity and develop practical, big data-driven use-cases in a coordinated way.



Convene – Collaborate and convene around big data and agricultural development

Bring together big data practitioners in partnership with global private sector brands, local startup companies, universities, and others, in spaces that will encourage interaction and produce innovative new ideas to solve development problems.



Inspire – Lead by example and inspire how big data can deliver development impact

Create opportunities for pilot projects that solve core development challenges and help scale them out. It will employ big data analytics and ICTs to leverage open data across disciplines to deliver information to farmers, monitor the state of agriculture and food security in real time, and inform critical national, regional, and global policies and decisions.

Data-driven climate adaptation could revive rice yields in Colombia and beyond

Scientists at the International Center for Tropical Agriculture (CIAT) are applying big data tools to pinpoint strategies that work for small-scale farmers in a changing climate. CIAT's big data scientists analyzed many years of rice production and climate data to solve the declining rice production puzzle in Colombia:



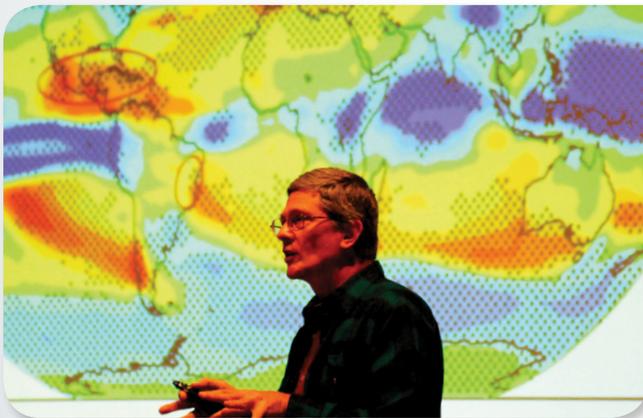
Researchers applied big data analytics to agricultural and weather records in Colombia, revealing how climate variation impacts rice yields.



These analyses identified the most productive rice varieties and planting times for specific sites and seasonal forecasts. The recommendations could potentially boost yields by 1-3 tons per hectare.



The tools work for multiple crops and landscapes, wherever data is available.



Photos: N.Palmer (CIAT)

Join us

The CGIAR Big Data Platform is seeking ambitious partners in the public and private sectors with an interest in the potential of big data to accelerate and enhance the impact of international agricultural research.

We invite you to be part of this exciting initiative to solve core development challenges, climate-proof agricultural development, and ensure global food security.

To find out more about big data and the Platform please visit:

<http://blog.ciat.cgiar.org/cgiar-platform-for-big-data-in-agriculture>

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