GODAN
Global Open Data
for Agriculture & Nutrition

HARNESSING OPEN DATA TO ACHIEVE GLOBAL FOOD SECURITY

Since its inception, GODAN has built a robust global network of

750

more than partners, from national governments, non-governmental, international and private sector organisations.

Introduction

It is estimated that around **800 million people** go hungry every day, with **3 million children** dying as a result of malnutrition each year. The world population is growing rapidly and agricultural productivity needs to keep up. Through collaboration with our partners, we can harness the potential of open data and help ensure that no one goes hungry.

What is GODAN?

GODAN, the Global Open Data for Agriculture and Nutrition initiative, advocates the proactive sharing of open data to make information about agriculture and nutrition available, accessible and usable. A rapidly growing initiative, the **GODAN** Network has over 750+ member organisations around the world, that have committed to make information about agriculture and nutrition available to all. Partners range from national government bodies and policy-makers, non-governmental organisations, academics, research organisations, as well as private sector organisations and corporations.

GODAN was established at the Open Government Partnership Conference in October 2013, following previous commitments to open data from G8 and G7 leaders. It is supported by a secretariat hosted by the Centre for Agriculture and Biosciences International (CABI).

The **United Nations** is a key supporter of GODAN's mission, with the initiative working closely with the **Food and Agriculture Organisation (FAO)** and its Economic and Social Development Department, as well as a number of other UN affiliated organisations that advocate international development and open data.

Founding Partners

What is open data?

Open data

is data that anyone can access, use and share. It means using licenses that allow anyone to reuse the data for anything. Open data can help shape solutions by enabling more efficient and effective decision-making at multiple levels across the agricultural value chain. It can foster innovation via new services and applications, and drive organisational change through transparency.

Tackling closed practices

We know that the agriculture and food sectors currently suffer from information asymmetries and closed data practices that limit progress, value generation and the fair distribution of resources. The lack of institutional, national, and international policies and openness of data limit the effectiveness of agricultural and nutritional data from research and innovation.

Achieving our Mission, Fulfilling our Purpose

By making agricultural data accessible and unrestricted, we can help tackle food security issues by promoting innovation, empowering farmers, processors, traders and consumers.

We can create economic opportunities and increase yields.

Advocate for Open Data to help Stakeholders be more efficient

Build, Promote & Grow Meaningful Partnerships

Find New Solutions Through Our Combined Knowledge And Resources

Support the Sustainable Development Goals

Support the FAIR (Findable, Accessible, Interoperable, Reusable) data principles

High Level Advocacy for Open Data

Raise Awareness of GODAN Activities

Create Tools and Intellectual Assets

Provide a Platform for the World's Greatest Minds, Industries, World Leaders, Corporations and NGOs

GODAN'S Impact:

Influencing Policy:

GODAN has developed major opinion forming policy research on data, and encouraged and supported policy change together with our partners to make open data publication and use increasingly the norm.

Our Donor Open Data Policy and Practice Study led to policy change in three major donors; USAID, DFID, and to the Bill and Melinda GatesFoundation commissioning **GODAN** and partners to advise on improving their policy and practice. Innovative new guidelines for FAIR and open data were developed for three countries. We are now looking to do the same in US universities.

GODAN is making key strides towards policy change in academia and has just published the Open Access and Open Data at PUSH Universities Report. The report shows how data created through university research fits into the global data ecosystem, and how university policies and research community culture need to change to promote data sharing in order to help solve world issues like hunger and malnutrition.

A landmark initiative - the Open Data Charter Open Up Guide For Agriculture – provides a guide for governments to identify and publish the important agricultural datasets for maximum policy impact, suggesting 6 key policy interventions and 14 key data types that should be focussed on.

Data Ecosystem:

Our Global Data Ecosystem for Agriculture and Food paper highlights how we are involving multi sector actors and working with the private sector to define open data use in agribusiness. It inspired and supported the development of the e-ROSA roadmap for open science in Europe and the development of open research data infrastructure under the European Union.

Data Rights:

The GODAN Responsible Data in Agriculture paper has led to the catalyzation of an initiative coordinated by **GODAN**, GFAR and CTA, to build a consensus on farmer data rights. This led to the publication of a white paper on Digital and Data-Driven Agriculture, focusing on smallholders. It also resulted in the German government funding research on data ethics.

Convening:

The 2016 GODAN Summit
We brought together nearly 800 world leaders, researchers, farmers and students from 46 countries to discuss how open data can be used to improve food security at all levels. The **GODAN** Summit was the first global conference to advance the role of open data for agriculture and nutrition in addressing long standing global food security issues. **The outcomes included the announcement of a new open data partnership for public health from the USDA and the launch of an extensive branded food products database with nutrition details.** The event was covered by the media worldwide, reaching around 5.2 million people through 150 outlets.

The Ministerial Conference on Global Open Data for Agriculture and Nutrition, in June 2017, Nairobi
GODAN convened a strategic partner event, the first ministerial network specifically focusing on open data for agriculture and nutrition. The event brought together several nations from the G77 working towards substantively mobilizing efforts in Africa and the broader Global South, it aimed to ensure that country is producing the data needed to achieve the agriculture and nutrition security related goals in local, continental agendas and the 2030 Agenda. The outcome was a historic declaration from Kenya and 15 African Ministers in support of comprehensive open data collaboration, a major milestone for world food security.

Networking:

Our Global Reach
Our work has reached almost 25 million people through **GODAN's** website, social media and other traditional media channels.

New Partnership on Farmer Access to Data
Working with donor partners CTA (European Union and African, Caribbean and Pacific States), KTBL (Germany) and GFAR, lawyers, farmers' groups and ethicists, **GODAN** is building a new global consensus on farmer rights. **GODAN** has commissioned key thinkers in the field to help advise how the open data dividend can be shared more widely. In 2018 we will build on key reports to explore better governance for open data in the sector and opportunities to push for an international treaty on farmer data rights.

Success Stories

Agriculture

CocoaSoils

CocoSoils is a NORA funded project establishing long term trials on cocoa, fertilization and production. Led by a partnership of companies including Nestle and Mondelez, it works with trials in 6 countries, working with over 90,000 farmers.

Thanks to the GODAN advocacy for open data, the partnership leaders have committed to publishing data openly once available.

The International Soil Reference and Information Centre (ISRIC)

ISRIC leads the GODAN Soils Data Working Group (WG) with 60 members in 40 organisations in 20 countries who have recognised that soil data is key to address current global challenges.

Their mission is to help catalyse the development of a federated global soils information system (GloSIS) which the Global Soils Partnership (GSP) is currently establishing.

The Involvement of GODAN partners in the working group gives the necessary broader societal support to soil data specialists who are working on increasing the exchange of data through better standards.

University of Nairobi's Centre

for Agricultural Networking and Information Sharing (CANIS)

CANIS is a network of agricultural value chain actors that address the challenge of Food and Nutrition by ensuring the right knowledge is delivered to those that need it.

Due to its partnership with GODAN and the use of open data, the Centre is now able to link students to materials for their work, with strategic partnerships with other institutes including the University of Nottingham.

"CANIS is now considered an anchor for data related work in the University of Nairobi and Kenya more generally". - Kiringai Kamau, Steering Committee for Capacity Building for Open Data, Advisor for Kenyan Government, Executive Director, CANIS.

Research

Syngenta

Supporting the development of the GODAN data ecosystem publication, they agreed with partners GODAN & Open Data Institute that it should be open.

A more open approach to open data allowed them to promote their 'Good Growth Plan to a wider audience and discuss open data issues with their own external affairs team and in the Syngenta Corporate Annual Report.

Nutrition

Food Composition DataBase

The USDA launched the Food Composition DataBase at the GODAN Summit in 2016.

Commonly quoted by popular health news articles and scientific publications alike, it is now accessible to others through an API. Using an API to provide REST access to the USDA Food Composition Databases assists application developers to include nutrient data into their applications or websites.

For the first time the API provides Food Reports, which list nutrient values for a specified set of nutrients, for anyone to access.

Technology

AgroDataCube

Agro Data Cube provides a large collection of both open data and derived data for use in agri-food applications in the Netherlands. It acts as an accelerator for innovation for companies and researchers to develop applications and launch research projects. It has reached 240 users in 3 months and was used in 4 hackathons in 6 months. It will be integrated into smart farming applications, with 5 private companies and platforms already building applications on it.

It was initiated by Wageningen UR and the Ministry of LNV in the Netherlands thanks to the awareness raised by GODAN

Cross River State Government, Nigeria

Smallholder farmers need weather prediction data to make important farming decisions. The Cross River State Government in Nigeria has added 50,000 farmers to its database and linked them to dynamic input related platforms where they can access agricultural and weather data from the Nigerian Meteorological Institute.

"Without GODAN we wouldn't be where we are because they facilitated this, especially in training materials and providing us with up to date information linked to open data sources online." Sonigitu Ekpe, Assistant Director of Agro Biodiversity, Cross River State, Nigeria.

ESOKO

GODAN partner ESOKO is a mobile service that has given 350,000 farmers access to weather and market data in addition to other resources through their phones in 16 countries across Africa. This has resulted in a 25% net increase in income for farmers across those countries.

"I am happy to say that this year I planted only once and my maize is doing well. The weather alert has made me know when to plant."– Mr. Clement Ang-Laming, Esoko Farmer, Ghana.

Targeted information by SMS...

1 Weather Forecasts   **2** Bids & Offers   **3** Market Prices   **4** Agric Tips

What our Partners say...

"The awareness and knowledge imparted via GODAN has been invaluable in our journey. Being able to understand and correlate data needs is a skill second to none. The contacts we made through GODAN have greatly improved our profile."
Genevieve Leveille Ms. CEO, AgriLedger

"As a partner, our organization has benefited from GODAN a lot; now EIAR is connected and updated on open data for agriculture. Personally I have benefited from resources and online courses which broaden my knowledge on open data specifically for Agriculture and Nutrition."
Tadesse Anberbir, ICT Director Ethiopian Institute of Agricultural Research (EIAR)

"GODAN gives us strong guiding principles, reputation and networking to support delivery of the SDGs" **Steve Keyworth, Director, Environment Systems**

"GODAN is an important space for knowledge and experience in open data and agrifood, and helps us to be connected to the use of data in the agrifood sector."
Christopher Brewster, Senior Scientist, TNO

"GODAN is a key partner to help us stay aware of the larger strategic landscape."
Brian King, Coordinator, CGIAR Platform for Big Data in Agriculture

"We were honored to begin our work with GODAN by helping plan the GODAN Summit in New York in 2016. Since then PUSH at Auburn University has been an active participant in research and communications of the importance of open data in eliminating hunger. GODAN is one of the key organizations that connects universities in the open data movement."

Anne Mims Adrian,
Open Data Project Manager,
Hunger Solutions Institute

Continued...

"It's a forum for us all to at least try to make tangible meaningful change, brings thought leaders together"
Richard Williamson, CEO, Generation 10 Ltd

"GODAN helps us in achieving impact goals in policy and in making linkages to new partners"
Christopher Addison, Senior Programme Coordinator, CTA

"Kenya, through office of Cabinet Secretary was accepted to be the champion of GODAN in Africa and G77 countries in 2016. The GODAN Secretariat supported Kenya to host the first GODAN African Ministers conference in June 2017. Since then, Kenya has received capacity building and support to enable Kenya initiate web-based portals for open data sharing. Kenya is also developing the African GODAN network and planning to support Uganda to host the second African conference in December 2018."
Tom Dienya, Head of Agriculture Statistics Unit, Ministry of Agriculture and Irrigation, Kenya

"As a result of GODAN we have benefitted from a range of networking opportunities."
Richard Tiffin, Chief Scientific Officer, Agrimetrics Ltd

Willy Bett, Kenya Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries:

"In the climate change era where drought has become a new and constant reality, we cannot build resilience without the right type of data being available to inform the decisions we make. Only an evidence-based approach using credible data will help us transform our economies through agriculture."

GODAN Summit 2016.

Why Partner with us?

By joining the **GODAN** network of partners, you will have access to some of the most influential companies, organisations, academics and government agencies - all working towards a shared vision. Together we can tackle food insecurity and help secure a prosperous agricultural future.

GODAN is set to continue breaking new ground on open data for agriculture and nutrition. We will enable more governments to announce initiatives and historic gestures in support of opening data. We will also work more closely with our public and private sector partners to foster collaboration and provide research, as well as a platform for innovations and stakeholders to play a key role in the open data story.

Supporting GODAN

We are a group of actors working towards improving the world's agriculture and nutrition value chain as a way to make this planet healthier and better fed. By improving the open availability, use and enrichment of data, and through meaningful engagement with stakeholders, will enable this vision. You can help **GODAN** Secretariat and its Network of partners work towards transparency, progress and innovation in the agriculture and nutrition sectors.

By supporting GODAN, you can:

- Help promote data to boost yields and access to markets for farmers and more nutritious and safe food on plates.

- Develop overarching enabling policies for open data, ensuring gender participation.

- Commit to publishing key datasets to increase farm productivity.

- Commit to funding for innovation for smallholder farmers to increase their income.

- Fund high quality research to build an evidence base and shared tools for open data to overcome food insecurity.

- Support capacity development with smallholder farmers and address bottlenecks in open data use to increase farmer income.

Through collaboration with our partners, we can harness the potential of open data and help ensure that no one goes hungry.

Achieving **food and nutrition security** through **open data**

gODAN
Global Open Data
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GODAN Secretariat,
c/o CABI Head Office
Nosworthy Way, Wallingford,
Oxfordshire OX10 8DE, UK

Tel: +44 (0) 1491 829421
Facebook: @godansec
Twitter: @godanSec
LinkedIn: GODAN Secretariat

To become a partner visit:
www.godan.info/partners/become-a-godan-partner