As the world’s population grows to approximately 9 billion by 2050, the demand on global food systems will continue to intensify.

To ensure the growing population can overcome hunger and malnutrition without compromising biodiversity and ecosystems, there must be a reduction in food loss and waste—which the Food and Agriculture Organisation of the United Nations (FAO) estimates to be about 30 percent of all food produced.

Improvements are needed in productivity and the use of natural resources. For example, food production currently accounts for 80 percent of all water use, and the use of herbicides, pesticides and fertilisers needs to be significantly reduced since they enter the air, water and food we eat.

The emergence of several hundred corporate and third-party sustainability standards and certification programmes over the past 20 years has driven the adoption of more sustainable production systems, together with developments in agricultural policy and greater public awareness of sustainability issues.

However, this has placed added pressure on farmers, especially in developing countries. In many cases, farmers are audited each year by more than one certification programme, resulting in “audit fatigue” and added costs.

A new approach is clearly needed that will make it easier, more cost effective and attractive for farmers worldwide to willingly adopt safer and more sustainable production practices.

Sustainable agriculture is the efficient production of safe, high quality agricultural products, in a way that protects and improves the natural environment, the social and economic conditions of farmers, their employees and local communities, and safeguards the health and welfare of all farmed species.
Introducing the International Trade Centre

Established in 1964, the International Trade Centre (ITC) is the joint agency of the World Trade Organisation and the United Nations. ITC's mission is to foster inclusive and sustainable economic development, and contribute to achieving the United Nations Global Goals for Sustainable Development. ITC works towards creating “trade impact for good”.

For farmers, this means producing more goods in sustainable ways and for consumers, it means less food waste. For all stakeholders along the supply chain—shippers, logistic services providers and grocers—it means adopting sustainable processes as the preferred way of doing business.

Questions remain however, as to whether it is possible to compel all farmers to become certified to one or more of the hundreds of voluntary international standards. Similarly, those who source or purchase products cannot benefit from or act on data from so many different sources.

At the heart of this issue is the absence of a common identification system for “entities” across the entire supply chain.

To this end, the ITC has developed the Sustainability Network. This mapping platform references more than 230 standards and certification programmes, and enables farmers to understand and benchmark the requirements of each. It also opens the door to sharing this information seamlessly with trading partners.

Enter GS1 standards

GS1 Global Location Numbers (GLNs) are key to enabling platforms like that of the ITC. Using GLNs to uniquely identify farms helps create the right conditions for transparency, accountability and the ability to learn and share information—all of which will make sustainable food production and consumption possible in the future.

In support of the UN goals and in partnership with the ITC, GS1 is providing a global identification registration service so that farms in every country will be able to register and receive a GLN, a unique identifier of the farm and its physical location.

Just as products are assigned their own unique item identifiers, farms will now be able to be identified.

Farmers can use their GLNs when reporting against any sustainability platform, or for more granular certification. By registering, the farm will also announce its willingness to receive capacity-building support from national stakeholders, governments and various UN agencies.

This is possible since GLNs will be integrated into the GS1 Global Farm Registry, enabling farm sustainability information to be selectively shared with other stakeholders along the supply chain. This will stem from the farm’s GLN and the associated master data on its profile and location.
“With GLNs, all sizes of farms will have an opportunity to communicate that they are using sustainable farming practices to possible buyers around the world, opening up and giving them access to international markets that they may have not had before,” says Joe Wozniak, manager of the ITC’s Trade for Sustainable Development Programme.

Wozniak explains how GLNs can also help expand market opportunities for farms already certified sustainable in a particular market, under a specific certification system. “For example, a coffee producer may be certified based on a standard set of practices for the U.S. market. Having a GLN allows the producer to be able to conduct a self-assessment to see what other markets present opportunities for entry. The producer may recognise that, based on its products and level of sustainable production practices, it is also quite close to complying with certification standards in, for example, the U.K. market.”

Improved decision-making with big data

Governments are also expected to find significant value by having access to data associated with the numbers of farmers in particular locations and the methods of production.

Information may be aggregated and connections across markets can be easily made.

Access to farm-level information means that governments can make targeted decisions and more effectively create solutions where challenges exist.

Wozniak adds, “The value of collecting farm data is not only about connections between partners and tracking products to market, but also for governments to understand where their aid can be targeted and how issues differ across different products, geographies and producer size.”

Farm-level traceability

Within the ITC Sustainability Network is a self-assessment module for information provided by farmers. “It was logical to collect information and organisational data of the actors involved in producing, processing and handling food,” says Wozniak. “We needed a way to connect these various growers and players for farm-level traceability. That’s where GS1 came in.”

Farms registering on the system can receive a GLN for unique identification. Farmers then have the opportunity to provide whatever information they wish on their profile.

“Who owns the data and who has access to it?” asks Wozniak. “Imagine this is an ‘information cooperative’. Farmers decide how much information they want to share. And we won’t export or share data without the express approval from the farmers themselves.”
The power of data

GS1 Global Location Numbers began to be issued to farmers in September 2015, with tens of thousands of registrations coming from farms in pilot countries including Colombia, Denmark and the Netherlands. Data gleaned from particular pilot countries over the next three to five years will allow for important assumptions on food systems and their impacts to be rationalised. For example, questions like: Is deforestation actually reduced in Asia because European consumers avoid buying palm oil?

GLNs will be offered globally to anyone wishing to have one, while farmers in pilot countries will also benefit from particular conditions and experiments to test assumptions of our food systems.

“With GLNs we are creating the foundation for traceability and discovering how improved sustainability performance is possible,” says Wozniak. “With our ITC platform, we could still collect the data, but it’s the unique identification and sharing of the data across the registries through the global GS1 GLN Service that will help us power decision-making and ultimately change.”

Learn more about the GLN Farm Registry:
Contact the GS1 team at sustainability@gs1.org.