

## Goal 2 - Zero Hunger

### End hunger, achieve food security and improved nutrition and promote sustainable agriculture

*"Our soils, freshwater, oceans, forests and biodiversity are being rapidly degraded. Climate change is putting even more pressure on the resources we depend on, increasing risks associated with disasters such as droughts and floods. Many rural women and men can no longer make ends meet on their land, forcing them to migrate to cities in search of opportunities."*

Understanding where things are located through maps, allow us to where things are not. For food security, this can allow governments and NGOs to see where food deserts exist, gaps in food distribution and assistance centers are occurring, and for policy makers to understand where and what farmers are growing to conduct thorough outreach, assistance, and training.

#### What has been done?

**Engaging Youth in Mapping Agriculture and Food Security** - Kathmandu Living Labs trained local students, youths and farmers to map their village in OpenStreetMap. Villages were mapped to assist in government agricultural policy. Farmers used open tools to map crops to understand what is grown where, and what markets are available.

**Building resilience of agricultural communities:** Recently, agricultural communities in Colombia have suffered due to devastating earthquakes and high volumes of landslides during rainy seasons. Fundación OpenStreetMap Colombia are collaborating with local government and local organisations on the Countryside Mappers Program. In partnership with the local government, Unidad de Mapeo Humanitario and OSM Colombia will help build risk management and evacuation plans.

#### What else could be mapped?

- Map access to food, such as household garden plots, outdoor markets, and grocery stores in order to identify food deserts
- Map food distribution and assistance centers
- Landuse and agricultural information such as crop types and seasonality
- Map marketplaces and their products to assist farmers with planning
- Map farms to guide NGOs and government agencies in reaching farmers for assistance and training opportunities

#### OSM Data Model

Category	Key	Value	Description/notes
All facilities	name		<i>Name of facility</i>
	noname	yes	<i>If no name</i>
	opening_hours		<i>Hours of operation</i>
	addr:full		<i>Full addressand/or addr:city, addr:district, addr:street, etc.</i>
	wheelchair	yes, no	<i>Wheelchair accessibility</i>
	contact		<i>Contact information for food resource</i>

Category	Key	Value	Description/notes
Food shops	shop	supermarket, farm	<i>Used as a place of business that has stocked goods for sale.</i>
	amenity	restaurant, cafe	<i>If a food amenity, used to describe the type of facility.</i>
	cuisine	, see wiki for suggested values	<i>For describing the type of food served at an eating place.</i>
Distribution centers, food banks, pantries	amenity	social_facility	<i>Used to identify an amenity used for social services.</i>
	social_facility	food_bank, soup_kitchen, community_centre, reception_centre, transit_centre, distribution	<i>For describing the type of social services provided.</i>
	social_facility:for	community, refugees, child	<i>For describing the target population used by the social facility.</i>
	operator		<i>Name of operator</i>
	operator:type	public, private, religious, ngo	<i>Type of operator</i>
Markets	amenity	marketplace	<i>Used to identify a facility used for selling goods and services on a regular basis.</i>
	marketplace:type	<agricultural, clothes,mixed>	<i>For describing the type of goods and services offered at a marketplace.</i>
Community gardens	leisure	garden	<i>Area of land used for residential or public cultivation.</i>
	garden:type	community, residential, roof_garden	<i>For describing the type of garden.</i>
	access	yes, no	<i>For describing the public accessibility of a garden.</i>
Farms	landuse	farmland, orchard, plant_nursery, aquaculture, forest	<i>Area of farmland used for tillage and pasture (animals, vegetables, flowers, fruit growing)</i>
	crop	grass, wheat, cassava, coffee,	<i>The crop produced by cultivated land</i>
	produce	fish, apples, live_animal	<i>Agricultural output, alternate to crop=*</i>
	animal	cattle, buffalo, sheep, goat, pig, horse,	<i>Used to specify features related to a type of animal</i>

Category	Key	Value	Description/notes
Office	office	<association,company, government, lawyer, ngo, political_party, telecommunication>	<i>Used to identify a place of business or service used for administrative or professional work.</i>

Additional resources: [https://wiki.openstreetmap.org/wiki/Food\\_security](https://wiki.openstreetmap.org/wiki/Food_security)