While the world has grappled with rising food prices, famines, and malnutrition, the fact remains that the plant currently produces enough food to feed everyone, and instead, most loses can be attributed to poor distribution. In India, for instance, 20% - 30% of the total food grain harvest is wasted due to "lack of availability of storage capacity, regional imbalance in warehouses, lack of adequate scientific storage and inefficient logistic management."

Stock-outs of important agricultural inputs can have just as devastating effects as the distribution of food, in both acute food security and for long-term food production. Modern supply-chain tools require heavy investments into training, computer infrastructure, and communications to ensure the smooth flow of critical inputs between supply points.

Modern supply chain tools require heavy investments into training, computer infrastructure, and communications which developing countries may not be able to afford with closed source or custom development solutions.

Inefficient power supplies, poor internet penetration rates, and high capital costs mean that most systems used in developed countries are not transposable to low-resource settings, often times leading to stock outs of important agricultural inputs. The need is clear for low cost, robust platforms capable of helping alleviate issues related to logistics, distribution and management of food systems.

Benefits of Dimagi's Technology for Value-chain Logistics

Dimagi's last mile value-chain systems, which have been deployed nationally in several countries for reducing stockouts of health supplies, can also be used to manage input distribution, cold chain of perishable goods, and warehouse receipt systems at lower cost than complex custom built systems. These costs are further reduced by intuitive interfaces for end users and during customization.

- Open source solutions allow for **greater flexibility** in potential value-chain logistics.
- Stock supervisors can quickly enter in products, quantities and suppliers, to pre-stock goods for **further actions**/events.
- Multimedia integration allows supervisors to include **photos** of the produce being stocked, thereby reducing errors further down the supply-chain in terms of quality control.
- Complex geo-referencing data-types are reduced to intuitive, localized stock ledgers to reduce training requirements.
- Cloud hosting of the database allows for offsite monitoring of supply-chains, allowing for management of multiple warehouses from remote locations.

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Highlighted Project

World Food Program, Zambia

Dimagi has been running several trials of food distribution programs for rural schools in Zambia. CommCare has been deployed to link schools to grain and cooking oil silos. Teachers send an SMS stating their attendance levels over a period, as well as on-hand levels of cooking oils and grain. CommCare is able to calculate consumption rates based on this data, alerting silo managers to when particular schools will require a resupply and at what levels. The instantaneous nature of data processing ensures neither wastage nor under-supply of commodities for the nearly 5000 children in 88 schools that rely on this program for food.