Cold Chain Optimization
Reducing Food Losses in the Developing World

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EMERGING MARKET FOCUS

2014 RECOGNITION
FASTEST GROWING AMERICAN COMPANIES
INC MAGAZINE

18 ACQUISITION COMPANIES 8 INDUSTRY SECTORS 3 LOGISTICS FIRMS

32 LOCATIONS
1,500 PEOPLE
Kenya’s Potential

Among chronically food-insecure Sub-Saharan African countries, Kenya is emerging as one with great economic potential.

The most critical factor in keeping food fresh and maintaining the efficacy of vaccines is proper cold transportation and storage, and Kenya is slowly addressing the challenges it has yet to overcome due to a still-developing infrastructure. The stage is set for Kenya to restore investors’ confidence in Kenya and keep the country on a strong path toward continued growth.
Food Loss in Africa

The cold, hard facts about cold chain logistics in Africa

The FAO estimates that the African continent loses enough food annually to feed 300 million people—a third of Sub-Saharan Africa—due to food spoilage.

This region represents 10% of the world’s population, but 70% of all people are living with HIV/AIDS or under the constant threat of malnutrition (or both)

There are 100s of millions smallholder farmers in Sub-Saharan Africa, most are among the 1.2 billion food insecure people

Food loss reduces income by at least 15% for Sub-Saharan farmers

African countries cannot reap the benefits of exporting their perishable goods simply because they are unable to reduce food spoilage
Kenya’s Horticultural Cold Chain Success

A blooming flower trade

A significant bright spot in Kenya’s economy is its thriving international horticulture trade, mainly with Holland. Its success in creating an efficient cold chain to export fresh flowers and roses indicates that with the help of investors, it has great potential to expand these logistics to storing and transporting fresh meats and produce.

Kenyan horticultural exports represent about 7% of the world market

Kenya is the leading supplier of roses in Europe

Since 2011, the volume of horticultural exports have made Kenya’s Jomo Kenyatta International Airport the largest hub in Africa
Capitalizing On Consumer Demand
Challenges Facing African Trucking Companies

Each day that perishable goods are in transit can decrease its potential market value. Serious transportation challenges occur on African roads.

- Difficult road conditions, sporadic fuel availability
- Lack of necessary parts/skilled mechanics
- Truck cargo robberies

American trucking companies have security procedures and cameras in place to protect drivers, equipment, and cargo. U.S. best practices to combat these problems include:

- Installing GPS tracking security, and vehicle immobilization devices on trucks
- Training truckers to know their route and cargo and keep in communication with dispatchers
- Designating predetermined checkpoints along the route
- Training drivers never to leave their cab unlocked, even when they’re still in the truck
- Implementing manned security checkpoints at the entrances of warehouses
The Foundation of Developing Countries

Kenya is addressing one of its most acute infrastructure challenges with a newly developed annuity road-funding model that will upgrade over 10,000 km of road. Kenya has struggled with a backlog of road maintenance works requiring over $4.3 billion, but the Kenyan government is moving ahead with this annuity financing plan.

Building Accessible Roads

- In 2014/2015, 2,000 km of road will be repaired.
- In 2015/2016, 3,000 km of road will be repaired.

These roads represent 80% small roads, 20% highways. This supports the projected economic growth, which is expected to expand by 6.9% this year. Providing access to all-weather roads is a key diagnostic measure of a country’s development.
Solar Power

Kenyan businesses are focusing more on reducing energy costs by applying sustainable energy, including solar power. In Kenya, the cost of energy per KWh is 17 cents, with prices doubling every few years. Annually, 95 million liters of milk is lost in Kenya due to lack of refrigeration.

Dairying is a common livelihood in Kenya, where there are over 650,000 small-scale dairy farms, most without electricity. Solar icemakers can make 50 kg of ice on a sunny day, which allows 100 kg of milk to be chilled daily. One solar icemaker can supply the chilling needs of up to 30 farmers. The icemaker has zero carbon footprint and emits no greenhouse gases.
Minimum Requirements For Refrigerated Trucks
Optimal Temperatures For Meat And Produce
Questions?

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