Technology to Improve Logistics Decisions

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Sergio Guedes Silva, 2011

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How can technology be useful to the Humanitarian Sector?
Challenges...
Solutions...

1 – Context
2 – Challenges
3 – Technology
4 – Three cases at WFP
5 – Final notes
The Humanitarian Sector and World Food Programme

✓ A United Nations Agency focusing on fighting hunger in the poorest areas of the world

✓ **Collaborating with:** governments, NGOs, local partners and other UN agencies

✓ **Type of projects:** Emergency, Relief & Rehabilitation and, Development

✓ **Dimension:** serves > 90 million people per year in more than 70 developing countries.

✓ **Operations:**
  - 3.7 million metric tons of food per year
    - 2 million procured
  - At any given time:
    - 30 ships at sea,
    - 70 aircraft in the sky and
    - 5,000 trucks on the ground
2 - Challenges

Globally

- Achieve efficiency and effectiveness

In Operations

- Access to data *(visibility)*
- Measurement *(data based improvement)*
- Think Supply Chain *(integrated vision)*
Operations in complex and dangerous scenarios in the most remote areas...
“Emerging technologies present us with the means to respond sooner and more effectively than ever before”

BAN Ki-moon
Secretary-General of the United Nations

3 cases at WFP

A - Bringing Visibility: Supply Chain Maps Interface
B - Enhance Supply Chain Planning: SC IPF System
C- Supply Chain KPIs Initiative
4 - A) Supply Chain Maps Interface

Based on data from Commodity Tracking System

- Global visibility
- Provide information on historical and operational performance:
  - Destination Ports
  - Overland Corridors
  - Delivery Points

Current Region: OMJ (Johannesburg) - Uganda
4 - B) Supply Chain Planning

The Import Parity Form (IPF) process:

- Plan a Request
  - Most cost effective way?
  - Costs and Lead Times?
  - Origin: Local, Regional, International?
  - Transport route?

Supply Chain: Request->Order->Delivery

IPF in the Supply Chain:
- Involvement of all main SC actors
- About 20 IPFs per day;
- Importance in the WFP Cash Food (potential high impact)
Way Forward: Develop a set of Supply Chain KPIs, and implement a continuous data-based performance improvement approach.

- Before: To plan
- During: To adapt tactics
- After: To adjust strategy

✔ KPIs Dashboard
- Web access
- Dynamic interaction
- Overall and Detail Reports
- Private and Academic inputs.
Innovation, Quality and Sustainability

(academia, governments, private sector)

Our role...?