Food Security in India

Integrative Supply Chain Innovations Using ICT

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N. Viswanadham
Indian Institute of science
Bangalore- 560012, India

n.viswanadham@gmail.com
Our Focus

• Data shows current implementations are faulty.

• We present solutions to Two issues
  – Nutritious Food Delivery
  – Location of warehouses
What Is Food Security?

• The **World Food Summit of 1996** defined food security as existing “*when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life*”.

• Thus food security implies both physical and economic access to food that meets their dietary needs and food preferences.
Current Efforts by the Government and NGOs

• The Government of India has launched several initiatives towards ensuring food security to its citizens. These include
  – Public distribution scheme
  – The mid day meal program for school children
  – National rural employment scheme (NREGAS)
  – Food security Bill Just approved by Union Cabinet

• Millions of hawkers in all major cities are self employed and serve the needy cause of Urban poor

• Akshaya Patra reaches out to 1,281,664 children in 8,208 schools in 18 locations across 8 states of India, providing them with freshly cooked meal packed in stainless steel containers. Other efforts exist in the states of Andhra Pradesh and Tamil Nadu

• 7000 warehouses are used for storage

• **High impact food security solution serving millions & generating millions of jobs is possible if we organize all these efforts as an Effective food security supply chain and execute this using ICT**
The Plough-Plate Food Supply Chain

• The supply chain /social network involves farmers, seed producers, fertilizer factories, financial institutions, millers, government, warehouses, fair price shops, retail shops, railways, truck transport companies, etc.

• Does anyone orchestrate the relationship among all the actors
Food Security: To Serve 100M Urban Poor

Vocational Training using Government programs

Processed Food Products
PDS
Meat & Diary Products

Distribution Center

Distribution Center

Distribution Center

Households
Mid Day Meals
Hawkers GPS

Kitchen

Kitchen

IT Backbone on Cloud

N.Viswanadham
Conclusions

• Our suggestion is streamlined execution of food security chain for urban poor which is a business network made smart using GPS, RFID, UID, Sensor networks, mobile, call centers etc.

• For Rural poor district-wise distribution centers and kitchen with MacDonald's type outlets or Food courts may be a good solution.

• Warehouse locations should be based on population statistics and location specific needs.

• Brainstorming and discussions with stakeholders would certainly lead to an Executable Food security system to replace the currently corruption ridden inefficient system.