World Production
- 230 million tons produced in 2008
- Largest producer: Nigeria
- Largest exporter: Thailand with 77% of world export in 2005

Local Production
- Costa Rica is the fourth largest exporter with 2.1% of world export
- $52,000,000 exported in 2010
- 15,200 hectares cultivated
- Main varieties in CR: “Valencia” and “Señorita”
- Average FOB price at packager: $0.56 per kg
- No taxes to enter into US market

Second largest exporter in Costa Rica
- Located in La Fortuna
- $6.1 M exported in 2010
- Exports to Europe and US

Supply Chain
- 5 company owned farms
- Supply 33% of production
- Sources from over 1000 independent farmers
- Two packaging plants
- Packaging plant operates on two shifts:
  - Product is shipped in refrigerated container
  - Ships about 12 containers per week
  - Time to wash, package and deliver to port: 24 – 36 hrs
- Bottlenecks/ Improvement points:
  - Yuca availability: ship only full customer order
  - Availability of boxes for final packaging
  - Packaging operations
  - Synchronizing empty containers with packaging operations

Objective
- Record must show one step back and one step forward in movement of product

Risks
- Farm identification
- 4 critical points in the packaging process
- Identification of arrival date of batch processed from a farmer
- Date of arrival is not tracked, only date of processing is stamped on box

Findings
- By mapping the process in one of the major packager we now have a good understanding of the processes related to the production, packaging and shipping of yuca in CR:
  1. Business operations: many little growers and a few big packagers that buys the production
  2. The process is relatively fast: yuca is shipped to port at most 2 days from when it is harvested
  3. No bar coding technology used
  4. The product is under no strong regulation or control from the Agricultural Ministry

Critical points for traceability
- Forward linking is easier
- Backward linking is more difficult

Next Steps
1. Map processes for frozen yuca production
2. Finalize processes around port operations and shipping (both land and sea)
3. Map process from destination port to final customer
4. Extend study to a sample of other yuca packagers to capture variations