D-Lab
Fall 2008

Development  Design  Dissemination
World Agricultural Facts

• In sub-Saharan Africa, women grow ~80% of the food
• Worldwide, women represent ~60% of the farmers in the developing world, yet receive only 5% of agricultural extension services
• There are 450,000,000 smallholder farms (< 2 hectares) in the world
World Agricultural Facts

- 75% of the world’s food comes from rice, corn, wheat, potatoes, barley, cassava and sorghum.
- Agriculture is responsible for 70% of global water withdrawals.
Case 1: Haiti
Agriculture, which is the main source of the Nation's wealth, is a guarantee of the well-being of the people and socio-economic progress of the Nation.

Title IX, Chapter 1, Article 247
Haitian Constitution
Some Basic Facts: Haiti

- 67% of the work force involved in agriculture
- 555,000 hectares under cultivation
- Only 75,000 under irrigation
- 70% of farmers work marginal, severely eroded hill-side farms
- Average farm size: <1 hectare
Case 2: Bangladesh
Some Basic Facts: Bangladesh

- 65% of the work force involved in agriculture
- 1% of farming households own 15% of cultivated land
- Average farm size is < 0.59 hectares
- 58% of farmers are tenant farmers
- 47.2% of land is irrigated
The Agricultural Technology Showcase

Part 1:
Post-Harvest Processing
Cereal Processing

- Drying
- Threshing
- Winnowing
- Dehulling
- Grinding
- Sifting
Traditional Milling

- Women spend 1 - 3 hours every day grinding grain for their families
- Mills are one of the most highly requested items from development organizations
Milling Technologies

- Roller Mills
- Burr Mills
- Hammer Mills
Roller Mill
Burr Mill

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Hammer Mills
• Existing mills often break down, and are difficult to maintain
Separating Screen
The Screenless Hammermill