Cambodia HARVEST: Commercial Horticulture

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Agricultural solutions to end hunger and poverty.

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HARVEST (Dec 2010 – Jun 2016)

- USAID Feed The Future & Global Climate Change Project
- Worked in 4 provinces (Battambang, Pursat, Siem Reap & Kampong Thom)
- 4 main components:
  - Increased Food Availability (improved production & access to inputs)
  - Increased Food Access Through Rural Income Diversification
  - Natural Resource Management & Improved Resilience to Climate Change
  - Increased Capacity of Public, Private & Civil Society to Address Food Security & Climate Change
- Main Value Chains – Rice, Commercial Horticulture & Aquaculture

RESULTS

- 124,000 Beneficiary Households (of these 6,500 were in horticulture)
- 87,600 ha under improved technologies or practices (1,000 ha in horticulture)
- Yield increases: Rice – 45%; Horticulture – 216%
- $40M in farm level incremental sales ($14.4M in horticulture)
- $18M in SME incremental sales
- $9M in private sector investment ($8.4M from ag. input suppliers)

FINTRAC GLOBAL APPROACH

Leverage the impact of improved production to commercialize smallholder farmers whose success drives the development of the value chain.

Key truths:

- Better smallholder practices & technologies for better agriculture
- Success & impact redoubles motivation and commitment – farmers & technicians
- Improved productivity creates business opportunities
- Cement the successes – professionalism, stewardship, resilience & scale

Better Practices and Technologies

19 commercial technologies were introduced to horticulture farmers under HARVEST. These included:

- Raised beds
- Production of seedlings using seedling trays
- Integrated Pest Management & the use of Biologicals (e.g. Trichoderma, Bacillus)
- Drip irrigation
- Soluble fertilizers
- Mulch & trellising
- In-farm drainage
- Postharvest practices

Better Practices and Technologies

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Extension approach

Invest in the field technicians – commit to their professional development

Careful choice of lead farmers and farmer groups

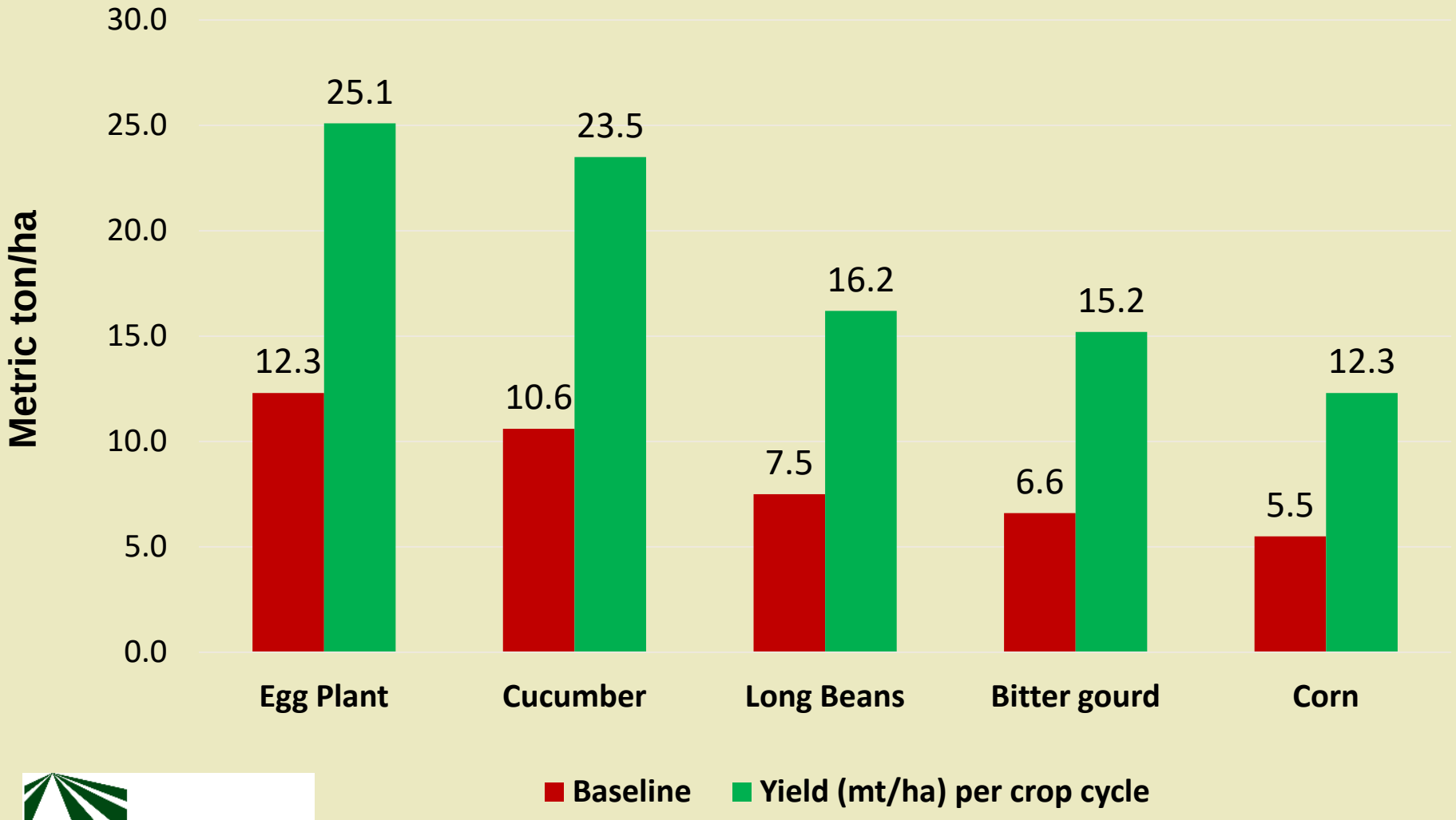
"Seeing is Believing" – the importance of practical demonstrations

Critical production points

Make sure that the extension package is compatible with the host country (e.g. example of drip irrigation, plastic mulch, row covers in Cambodia)

Commit quality time in the field to the farmers (18 months on HARVEST)

HARVEST: Better Practices and Technologies



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Success & Motivation

Agriculture is not easy and there has to be the motivation to invest the time and money (farmers and extension agents).

Extension agents and farmers have seen development initiatives before and inertia can set in. This is not business as usual however. Increasing yields by simple technologies and dedicated practices is transformative.

The importance of early successes. Minimize risks and do not over-extend a farmer's resources. Focus on ROI.

Transformed farmers are the motor that drives agricultural development.

Their successes create a platform to engage the value chain and to drive adoption & scale. This is the 'depth' required to the market systems approach.

HARVEST: Success

The commercial horticulture value chain identified as the highest impact technical component was selected for scaling up in the last half of the program, with an increase of 2,000 additional demonstration clients.

Lessons/Challenges

- If a farmer does not succeed the first time, he/she will not likely have the money to try again
- Most households see vegetable farming as risky and high investment
- Needs good extension and must avoid over extending resources.
- Lack of or no water results in seasonal farming

Improved Productivity Creates Business Opportunities

Volumes and quality opens up market opportunities

- Consolidate harvested produce (as long as there is consistent quality between farmers)
- Importance of postharvest handling, planning & communication

Success & profits gives farmers the confidence to be more proactive with the market (diversification and off-season production).

Input companies respond to steady demand and improve distribution & prices (competition helps)

Farmer confidence & improved production/profits creates a favorable environment for microfinancing, expansion and diversification.

HARVEST: Markets

- Collaborated with 377 buyers and linked them to 4,362 horticulture farmers in the program's four target provinces
- Due to small size of farms, farmers had to come together to form producer groups in order to meet buyer volume demands.
- Implementation of farm level post-harvest practice for select vegetables destined for high end markets increased the buying price between 15 and 30 percent
- Price is the issue. Cambodia cannot set prices, importers set the initial prices (they have the volume/area under production) and domestic traders adjust accordingly.

HARVEST: Finance

- Worked with 9 microfinance institutions (31 branches in ZOI).
- Loan value totaled $16 million distributed to 14,215 agribusinesses and farmer beneficiary households (20% to commercial horticulture farmers).
- Farmer collateral is still a major issue (lower income households).
- Required paper work is an issue for agribusinesses.
- Some farmers have a bad year, low prices, low volume, and cannot meet the payback schedule. Revert to seeking loans outside of MFIs.
- 20% of the 6,537 horticulture farmers applied for loans.

HARVEST: Input suppliers

- Assisted 340 input suppliers through business development support, new product introduction and technical assistance (2,011 people trained).
- New investment value totaled $8 million (new stores & expansion, transportation, equipment and machinery)
- Incremental sales totals $15.9 million, 50 percent over baseline sales value.
- Financing (for investments) is a problem for many businesses
- Businesses do not always want to get "larger" but are happy with the small niche they are occupying
- Administration and accounting is extremely weak in almost all agribusinesses => more involvement of project staff and support

Cement the Success

A true value chain emerges with mutually beneficial interactions based on dependable performance, good communication and knowledge-based negotiations

Technical services improve

- SMEs invest in this to keep the motor running (buyers, input suppliers)
- Independent consultants (improved employment opportunities)
- Government (as much a Champion as an implementer)

Conserve farm's natural resources & build resilience in the farming system – climate smart agriculture

'Crowd-in' of stakeholders to take the development process to scale.

Cement the Success: Climate Smart Agriculture

1. Promote good agricultural practices to increase incomes.

   Farmers adopt new practices when there is a profit incentive.

2. Implement adaptation methods that reduce loss risk from extreme weather events

   Irrigation conserves water during drought and raised beds, contouring helps during floods.

3. Incorporate a whole-farm integrated crop management approach

   Risk reduction through diversification; adaptive management

4. Support research, development, and adoption of new varieties

   Identify varieties best suited for present conditions; promote propagation & sale

5. Expand capacity in remote weather stations, disease modeling, and index insurance systems.

HARVEST

Adaptation Practice	Vulnerability addressed	Impact & Advantage to client
Drainage	Reduced exposure to flood	Increased yield Reduced crop losses Improved quality = ensuring best possible income for farmers
Drip irrigation	Reduced exposure to drought (water conservation)	
Raised planting beds	Reduced exposure to plant and soil loss / erosion from rain and flooding	
Mulch (plastic and straw)		
Trellis netting	Reduced sensitivity to foliar diseases	
Crops & varieties selected according to season	Decreased sensitivity to drought or flood	

Questions

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