

Moc Chau vegetable farmers' use of data-aided decision-making, traceability, quality assurance, and access to higher value markets

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ACIAR vegetable projects in Northwest Vietnam

(From 2009)



Moc Chau:

- Moc Chau (800 m asl.) can grow temperate vegetables in Summer when too hot in Ha Noi
- 200 km (4 hours) from Ha Noi
- Adequate arable land (40,000 Ha)
- Small scale and scattered producers

Ha Noi:

- High demand for quality vegetables
- Consumers pay higher prices for ***certified safe***, high quality vegetables
- Retail markets expanding rapidly

What Moc Chau farmers need to supply Ha Noi

- Quality certification → *Viet Gap* and *safety*
- Recognition by Ha Noi retailers & consumers via *Trademark* and *traceability*



To link to Ha Noi markets

- Sustainable farmer groups
- Strong farmer ↔ retailer communication

To need data for:

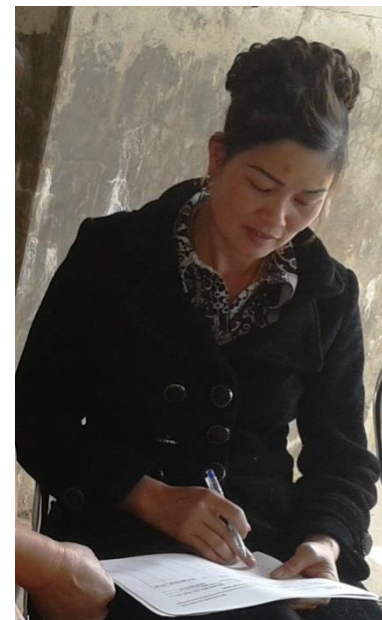
- Production planning & volume forecasts
- Certification & traceability
- Cost-benefit analysis



Individual farmer and farmer group records

Individual farmer records

- Areas, dates (sowing, planting, harvesting)
- Seeding and transplanting records
- Fertilizer type, rate and date
- Pesticides type, pest, rate and date
- Use of labour



Group records of each crop and harvest date

- Crop type
- Total yields (kg)
- Date of harvest
- Farmer names and codes
- Date of delivery
- Retailer(s) (kg)

PHIẾU THU HOẠCH VÀ PHÂN PHỐI HÀNG HÓA (Harvesting and deliver product record)

Nhà cung cấp: _____ Mã cung cấp: _____
Supplier's name Supplier's code
Địa chỉ: _____ Điện thoại: _____
Address: Telephone number

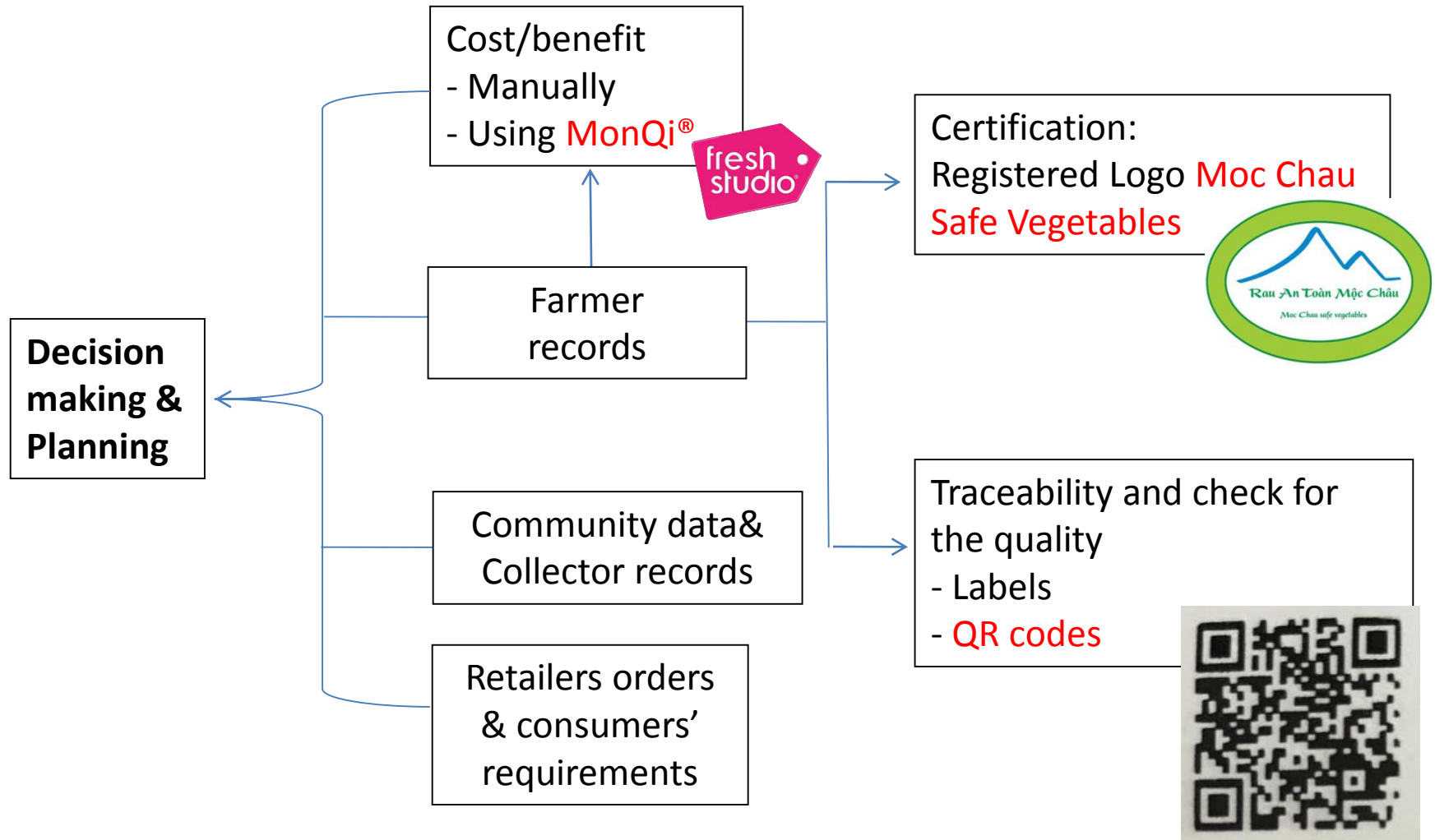
Ngày thu hoạch (Harvesting date)	Sản phẩm	Tên nông dân (Farmer's name)	Mã nông dân (Farmer code)	Số lượng thu hoạch (Harvest quantity) (kg)	Ngày giao hàng (Delivery Date)	Số lượng giao Metro (Quantity delivered to Metro)		Số lượng giao đơn vị khác (kg) (Deliver quantity to others)
						Kg	Kho	

Retailer and consumer data shared to farmers

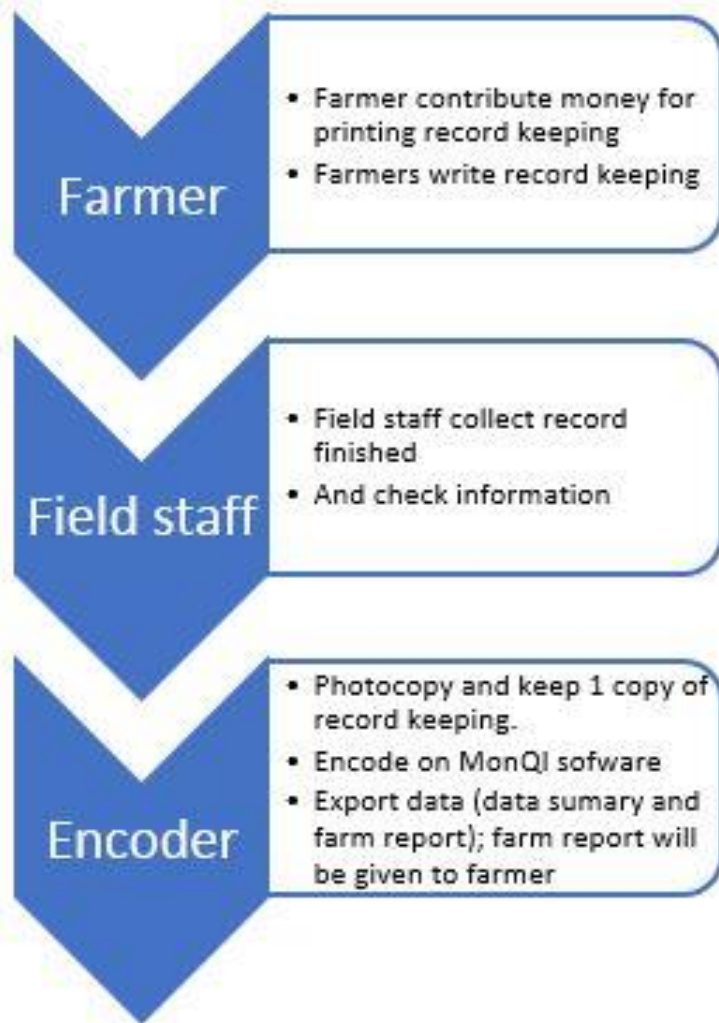
- Volumes of each vegetable crop ordered
- Requirements (packaging, labels...)
- Feedback from consumers



How the data is used



MonQi analyses data at the farm and co-operative levels



Note: MonQi software was developed by Fresh Studio



1 General information

Report requires MonQi export tables: AE, LA, FLOW, LA, FLOW, PESTICIDE, AI

Farm:	TAN_01: Nguyen Van Duyen
LU:	LU04: Bang phang - Dat set cat
LA:	19: Tomato
Area:	Area: 500 m2
No. plants	1,500
Dates:	Planting: 7/6/2014 First harvest: 9/10/2014 (66 days) Last harvest: 10/29/2014 (115 days)
Yield:	1.47 kg/plant 4.42 kg/m ²

ID = 5,966

2 Financial

Table 1: Summary Net Cash Flow and Gross Margin

Cash Expenses	1,086,500	VND
Cash Receipts	15,463,000	VND
Net Cash Flow	14,376,500	VND
Net Cash Flow/ha	287,529,999	VND/ha
Cost price	492	VND/kg

Note: 1 mo = 10,000 m²

Table 2: Input costs; specification of cash expenses (as in table 1)

Type/name	Quantity	Unit	Price per unit	Cash expense
Seed/planting				
Tomato	1,500.00	so cay	106.6667	160,000.05
			total	160,000
Pesticides				
Daconil 75WP	45.00	gr	533	24,000
Dupont TM Kocide	50.00	gr	1,400	70,000
Man 80Wp	60.00	gr	800	48,000
			total	142,000
Fertilizer				
		Mineral + Organic		
NPK 5.10.3	40.00	kg	4,938	197,500
NPK Binh Dien 13.13.13	20.00	kg	15,750	315,000
Supe Lan Lam Thao	50.00	kg	5,000	250,000
Tro bep	20.00	kg	1,100	22,000
			total	784,500

QR codes: easy access to data



<http://pin.htx.vn/b/mc/287-cm24-7-2017>



Scanner: Bar Code Reader QR Code Reader (\$32)



Mobile phone app (Free)

QR code header information

Scanning the QR codes provides information on:



Information about the farm co-operative
Tu Niet village in Moc Chau

THÔNG TIN SẢN PHẨM

Tên sản phẩm: cải mềo 24.7.2017

Xuất xứ: Mộc Châu

Quy cách đóng gói: Túi 0,5kg

Loại bao bì: Lạt buộc

Cách bảo quản: Bảo quản thường

Ngày gieo trồng: 09-06-2017

Ngày thu hoạch: 24-07-2017

Số lô sx: RMCATTN020717

Quy trình sản xuất: VietGAP

Diện tích trồng: 200m

Vụ thu hoạch: Tháng 7

Ngày cấp VietGap: 22-12-2015

Khối lượng: 20kg

THÔNG TIN NHÀ SẢN XUẤT

Tên đơn vị sx: HTX Rau An toàn Tự Nhiên

Quốc gia: Việt Nam

Người đại diện: Nguyễn Thị Luyến

Số điện thoại: 01695 438 180 hoặc 01674 943 800

Địa chỉ: Bản Tự Nhiên, xã Đông Sang, Mộc Châu, Sơn La

Website: htxrauantoantunhien.com.vn

THÔNG TIN VẬN CHUYỂN

Loại hình: Đường bộ

Phương tiện: Xe ô tô

Người vận chuyển: Nguyễn Văn Long

Khoảng cách: 210 km

Hộ sx: Nguyễn Thị Luyến

Typical information in a QR code

PRODUCT INFORMATION

Product Name: Hmong cabbage

Origin: Moc Chau

Packing: 0.5kg bag

Type of packaging: tied

Preservation: Normal storage

Date of planting: 09-06-2017

Date of harvest: 24-07-2017

Lot number : RMCTT....

Production process: VietGAP

Planted area: 200 m

Season: July

Date of issue Viet Gap: 22-12-2015

Weight: 20kg

MANUFACTURER INFORMATION

Name of Unit: Cooperative Safe Vegetable Tu Nhlen

Representative: Nguyen Thi Luyen

Phone: 01695 438 180 or 01674 943 800

Address: Ban Tu Nhlen, Dong Sang, Moc Chau, Son La

Website: www.htxrauantoantunhien.com.vn

TRANSPORTATION INFORMATION

Type: Road Transport

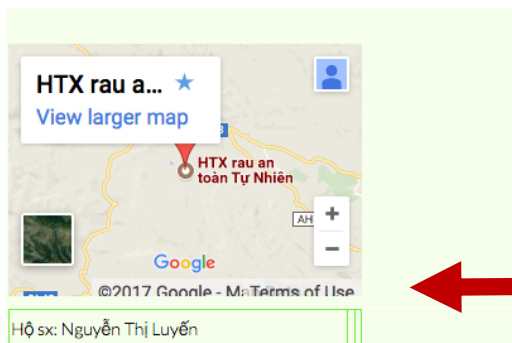
Vehicle: Car

Driver: Nguyen Van

Distance: 210 km

This information is required for traceability of the consignments for VietGAP.

Can be achieved cheaply using QR codes compared to Bar code systems used in more developed retail systems



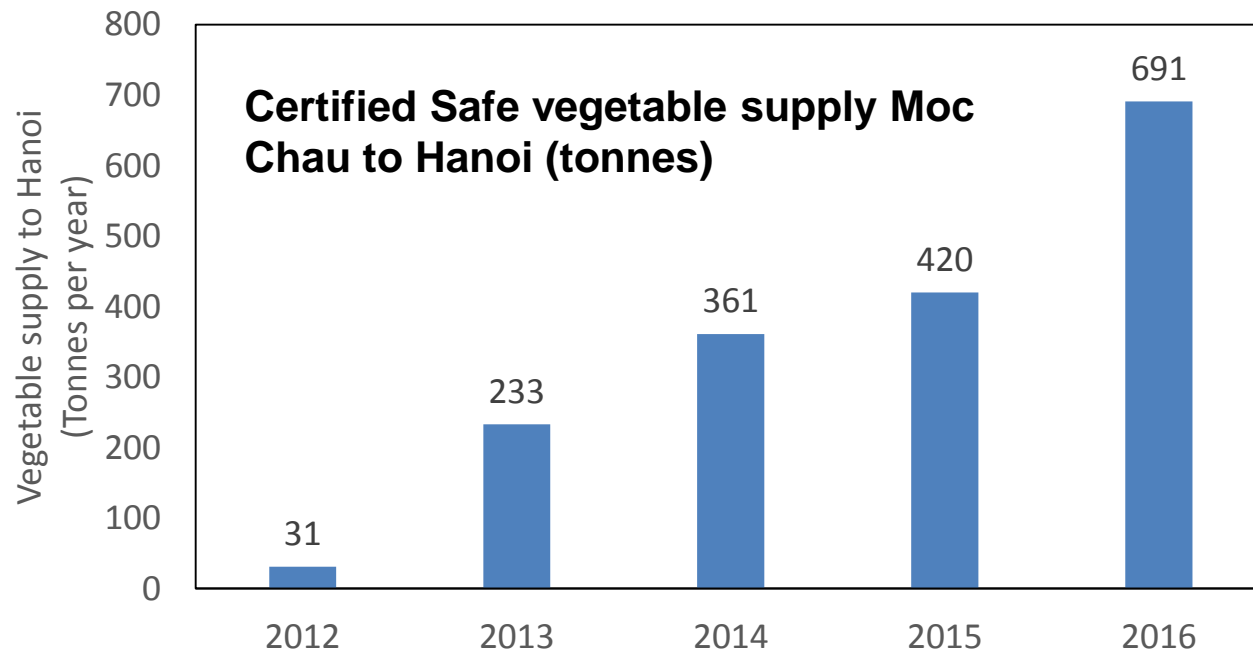
Current project priorities

- Wider use of the Moc Chau logo
- QR codes for traceability
- Simplification of record keeping
- Scalable farmer groups
- Measure social and economic impact
- Share with Myanmar



Business case for safe vegetables: Moc Chau

Production system	Typical Net Income M VND (per ha per yr)	AUD equivalent (per ha per yr)
Traditional household income (Moc Chau)	120	\$7,560
<i>Certified safe vegetables</i>	300 <i>(150% more income)</i>	\$18,900
Rice / Maize	20 (or less)	\$1,260



The Australian ambassador to Vietnam buys his vegetables from the ACIAR Rau an Toan Moc Chau project !



ACIAR

