

ENTREPRENEURIAL DEVELOPMENT OF VALUE CHAINS

A Kenya Dairy Sub-Sector Example



**BUSINESS SERVICES MARKET DEVELOPMENT
PROJECT – DfID KENYA**

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Presentation format

- Introduction / Background
- Industry Background and Outlook
- Value Chain Case Studies
 - Warm Milk Chain - Nandi Hills
 - Cold Milk Chain – Central Kenya milk bulk coolers
- Lessons Learnt and Challenges

BSMDP Introduction

- ❑ Business Services Market Development Project, (BSMDP) DfID funded Project based in Kenya. Initial 3 years then 2 year extension granted on project review
 - Project budget £4.2m inclusive of £3m grant funding

- ❑ BSMDP Goal
 - “to improve pro-poor economic growth opportunities in key sub sectors where the poor are economically active”
 - to stimulate development and delivery of sustainable services which support economic growth

- ❑ Sub-Sectors Selected
 - Dairy
 - Export Horticulture

- ❑ Selection of sub-project grant recipients is based on demonstration and scaleable projects generally managed by facilitators selected by tender and challenge fund approach

Kenyan Dairy Sub-Sector Background and Outlook

- ❑ Agriculture and forestry sector is an important part of the Kenyan economy and in 2005, experienced growth of 6.7%
- ❑ Substantial growth in the dairy sub-sector with total production estimated at 3.2 billion litres in 2005 of which only 32% enters the market
- ❑ The amount of milk marketed in 2005 increasing by 21.2% to over 1 billion litres
- ❑ About 20 - 25% of total marketed milk is sold through formal processors, the remainder going through the informal milk sector
- ❑ Estimated over 70% of milk production is from small holder farmers with an average of 1-4 dairy animals
- ❑ Supply is typically based on bimodal peaks caused by two rainy seasons and prices vary accordingly
- ❑ Main constraint in informal milk value chain is legislation
 - loose milk trading not recognised by current Kenyan Dairy Act.
 - Multiple Ministries key actors within the dairy sector

Kenyan Dairy Sub-Sector Snapshot



Farmers- 70% small-holder producers as Individual or groups

**Cold Milk-
Formal Milk Chain 20%**



Bulking & Cooling Enterprise- formal groups or co-ops



Informal Sector – Direct sales to consumers via series of informal traders

Warm milk – Informal Milk chain 80%



Market – Main processing companies selling to urban consumers

BSMDP Case Study # 1

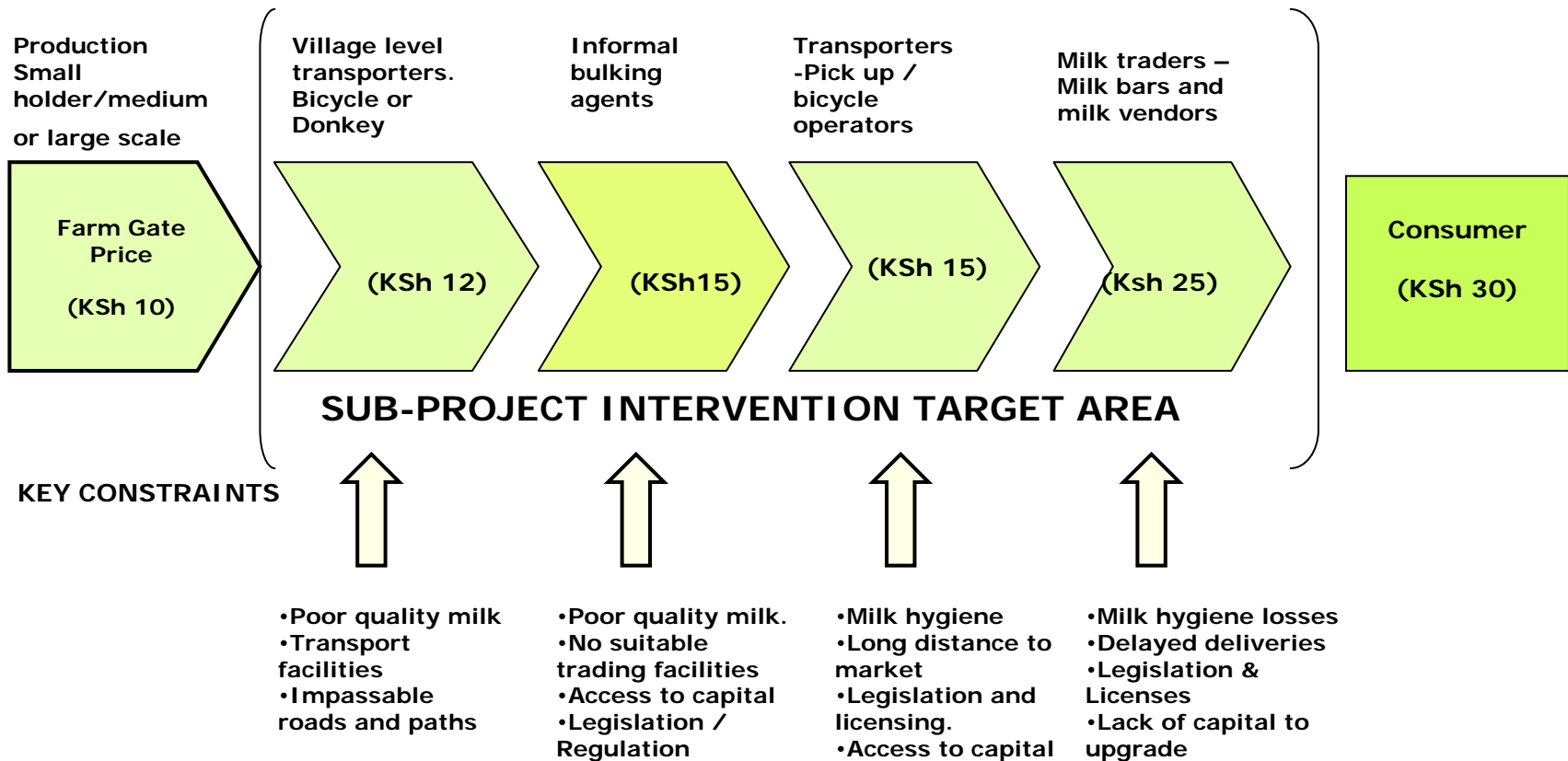
Warm / Informal Milk Chain

- Nandi Hills dairy project, implemented by Practical Action formally ITDG
- High milk production area, mainly by small holder producers with milk deficit area in close proximity below escarpment
- Vibrant economic activity within the value chain dominated by small entrepreneurs, though highly inefficient
- The project is aimed at strengthening returns to smallholder dairy farmers through
 - Introduction of Appropriate Technology
 - Pilot testing of business development service interventions
 - Exploring Potential involvement of local Authority as service providers

BSMDP Case Study #1

Warm Milk Chain – area based VC

Case Study from the Greater Nandi Hills Area



BSMDP Case Study #1

Warm Milk Chain Cont...

General cross cutting constraints

- ❑ Policy and regulation issues key challenge
- ❑ The project had to incorporate various regulatory bodies
 - Kenya Dairy Board
 - Ministry of Livestock and Fisheries – Animal Production Department
 - Ministry of Health – Public Health Officials
 - Local Authorities – Rural and Urban



BSMDP Case Studies

Warm Milk Chain - Interventions



□ Technology Innovation

- Spill proof stainless steel containers (satisfactory)
- Basic milk testing equipment (very good – 80%)
- Steep slope bicycle foot brake (very good) 4 artisans within project area.
- Various bicycle innovations (good uptake)
- Donkey Harness (reasonable uptake- too expensive)
- Fuel efficient pasturiser (not successful)
- Charcoal coolers (not successful)



□ Buy in from relevant authorities

- Creating a working with not working against attitude
- Ease of licensing procedures
- Increased business value and reduced losses due to legalisation through out the value chain
- Easily replicable to other parts of the country

BSMDP Case Studies

Warm Milk Chain - Interventions

- Roads and paths spot improvement
 - Labor intensive area based improvement programme

- Milk quality and hygiene training and improvement
 - TOT on milk testing and hygiene
 - Introduction of basic testing equipment
 - HACCP Study



BSMDP Case Study #1

Warm Milk Chain Cont...



- Milk marketing improvement
 - Establishment of milk collection bulking shed
 - increased milk volumes by 2500l per day Mosoriot group
 - 5 milk bars
 - Model milk bar promoted (with support from KDB)
 - Improved milk bars - 3 additional milk bars registered.
 - Marketing promotions (increased milk volumes)
 - Branding "The Promise" (80% increase in milk bar sales)
- Increased shelf life
- Product diversification and value addition
- Group strengthening along value chain
- Access to credit – linkages to micro finance institutions

BSMDP Case Study #2

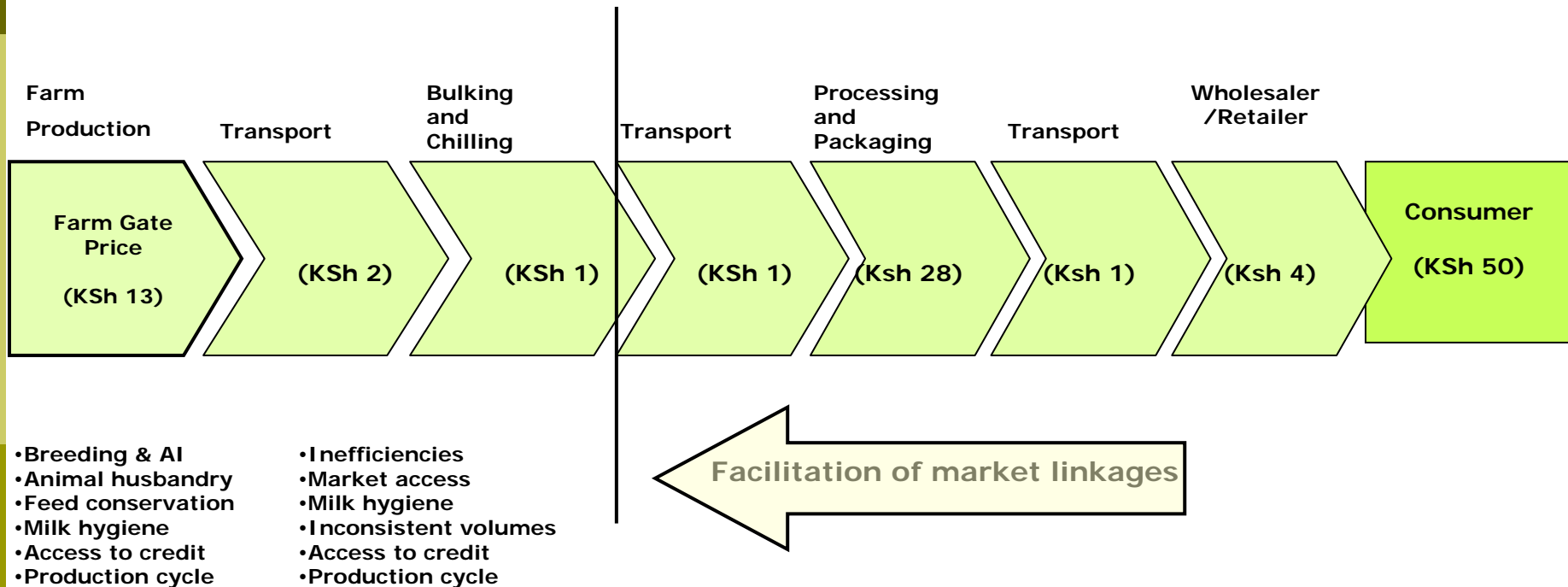
Cold Milk Chain

- ❑ Implemented by consortium of Technoserve and African Breeders Services Total Cattle Management (ABS TCM)
- ❑ Implemented in a high milk production area, in close proximity to urban milk markets and easily accessible by the main processors
- ❑ The project aimed at improving the efficiency of milk production and marketing, via the hub approach
- ❑ Implemented at four main sites

BSMDP Case Study #2

Cold Milk Chain

Case Study from the formal bulking & chilling model



BSMDP Case Study #2

Cold Milk Chain - Interventions

- Improved efficiency at milk bulking and chilling centre by
 - Committee & management training
 - Improved MIS systems and record keeping
 - Buying in services eg accountancy and advisory

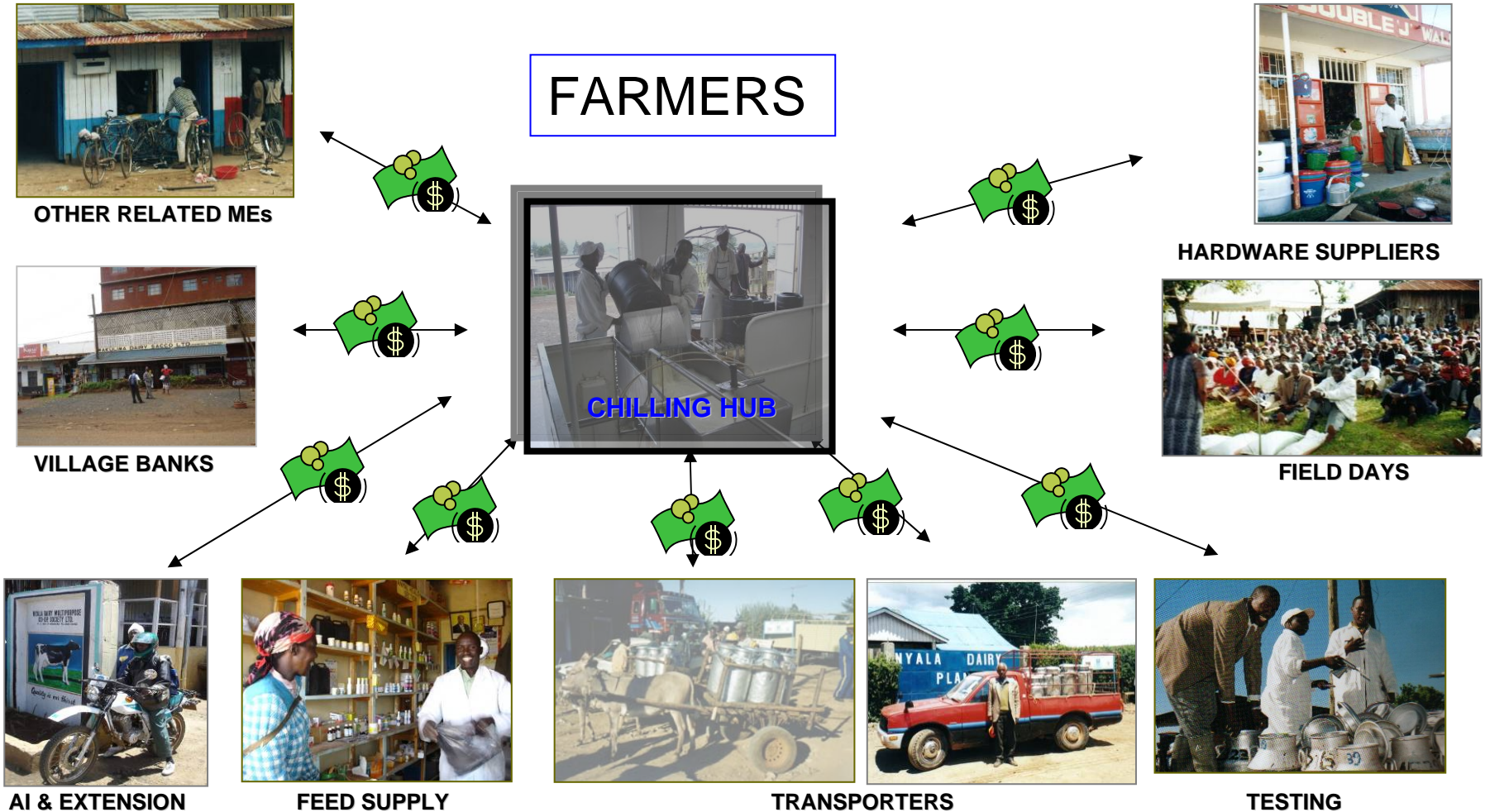
- Improved production at Farm level by private service providers
 - AI services
 - Animal Husbandry
 - Feed Conservation

- Improved service delivery by milk bulking and chilling centre
 - Milk testing services & improved milk quality
 - More stable prices via contracts with processors
 - Increased volumes and reduced rejections
 - Check-off services available for
 - Feeds and other farm inputs
 - Vet services
 - Artificial insemination services
 - Purchase of groceries and hardware items
 - Competitive prices due to bulk purchase and delivery



BSMDP Case Study #2

From Chilling into Business Hubs



BSMDP Case Study #2

Cold Milk Chain - Achievements

Working at 4 main sites the achievements were as follows:

- ❑ 2 long term contracts with main processor who collect chilled milk in bulk
- ❑ Fixed price per litre at an average of KSh18 as against variable price between KSh 12- KSh20 depending on the season.
- ❑ Increase in overall revenues of chilling plants by between 60% - 80%
- ❑ 10,300 small holder producers participated
- ❑ Reduction in milk rejects by over 90%
- ❑ Increase in purchase of business services such as AI, on farm advice on feed conservation and animal husbandry
- ❑ Worked with 80 private service providers majority experiencing business growth
- ❑ Increase in saving and borrowing from SACCO's & Co-op Societies between US\$25,000 to 100,000 for various sites

Case Study #1 Warm Milk Chain

Lessons Learnt & Challenges

- ❑ Introduction of new technology difficult in informal sector
 - Cost issues
 - Un-foreseen impact
 - Difficult with groups

- ❑ Improved prices in value chain were not all passed on to the farmers
- ❑ Should have included production improvement activities in project
- ❑ Professional facilitation of market development projects is very expensive
- ❑ High expectations from local authority officials who saw intervention as donor driven. However if managed properly their contribution is invaluable
- ❑ Business efficiency training for certain members of the value chain had a high impact eg traders and milk bar operators
- ❑ Attitudinal change in Kenya Dairy Board has been very positive for small milk traders, which is replicable

Case Study #2 Cold Milk Chain

Lessons Learnt & Challenges

- ❑ Seasonal production pattern making contract compliance difficult
- ❑ Intense competition in sub-sector and reluctance of processors to develop the value chain
- ❑ Milk sales are purely on volumes with no premium paid for quality and increased butter fat
- ❑ Inconsistency in service provision by small service providers
- ❑ Check off system for services via chilling hub represents good business model
- ❑ Project being replicated in Western Kenya with some adaptation to local market difficulties

A Kenyan Encounter



Alice Gichuki - Member Mukulima Dairy Society
typical Kenyan small holder dairy farmer

"With dairying, even my mother-in-law ceases to be a dependant, she is able to meet all her basic needs from the proceeds of milk, I have benefited immensely from Wakulima: I not only have milk for my family but I can depend on Wakulima to pay for my children's education, medical bills and I can put enough food on the table".

- Alice has three children.
- She has 3 cows producing 45 litres of milk a day.
- Sells 35 liters to the society leaving 10 litres for home consumption.
- Earns \$200 per month, 4 times the average family's income in the area.
- Her vision is to grow her production to 100 litres per day through the purchase of more cows.
- She has been able to build a water tank and extend her house from 2 to 3 rooms.

Thank You



Business Services Market Development
Project, Kenya (BSMDP -DfID)