

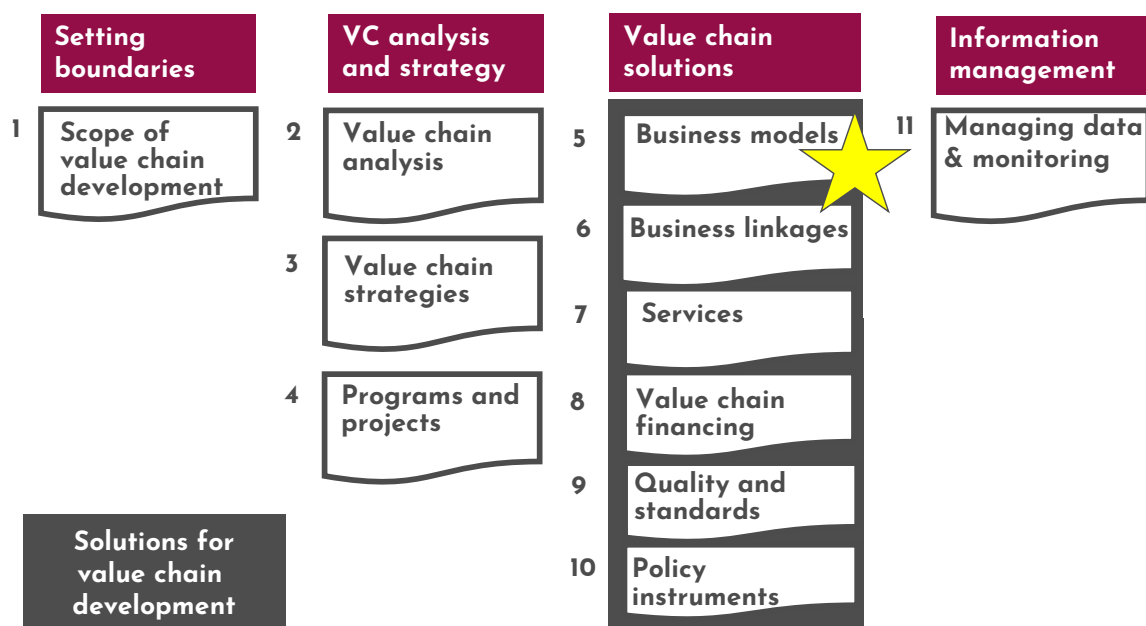


ValueLinks Module 5

BUSINESS MODELS



STRUCTURE OF VALUELINKS 2.0





MODULE 5

01

BUSINESS MODEL CANVAS AND
FINANCIAL ANALYSIS

02

CASE EXAMPLE: ATTIEKÉ
PRODUCTION IN BURKINA



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CLIMATE-SMART BUSINESS MODELS

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IMPLEMENTATION KNOW-HOW

Business models and the value chain solutions

- Every enterprise has a business model, either implicitly or explicitly.
- The value chain as a whole can be divided into specific types of VC actors with similar business models.

Definition: A business model is....

Definition: A business model is...









...a specific combination of product/markets, internal operations & technology, supply and marketing links that an enterprise uses to succeed and grow (Wikipedia: "the rationale of how an individual firm creates, captures and delivers value")

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DESCRIBING A BUSINESS MODEL









The complete business model canvas format

Key Partners  Key partners? Key suppliers? Which key resources are we acquiring from partners? Which key activities do partners perform?	Key Activities  What key activities do value propositions, relationships, distribution channels, revenue streams require? Key Resources  What key resources do value propositions, relationships, distribution channels, revenue streams require?	Value Propositions  What value do we deliver? Which of our customer's problems are we helping to solve? What bundles of products and services are offered? Which customer needs are we satisfying?	Customer Relationships  Types of relationships with each customer? Are they integrated with the business model? How costly are they? Channels  Through which channels are customers reached? Are channels integrated? Which ones work best, are most cost-efficient?	Customer Segments  For whom are we creating value? Who are the most important customers?
Cost Structure What are the most important costs inherent in the business model? Which key resources are most expensive? Which key activities are most expensive?		Revenue Streams  For what value are customers willing to pay? For what do they currently pay? How much does each revenue stream contribute to overall revenues?		

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INSTRUCTIONS GROUP WORK 4 :

Key Partners  xx	Key Activities  xx Key Resources  xx	Value Propositions  xx	Customer Relationships  xx Channels  xx	Customer Segments  xx
Cost Structure xx		Revenue Streams  xx		

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BUSINESS MODEL KNOW-HOW FOR VCD PROGRAMS

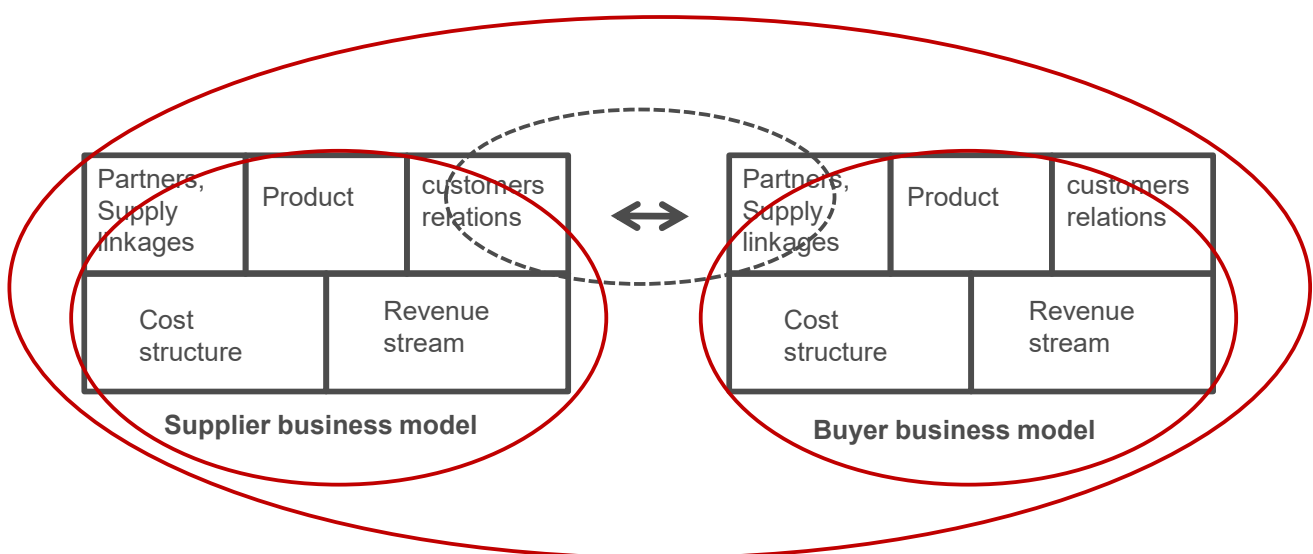
How can we use the business model approach?

- Help improving existing business models, particularly for small and medium enterprises
- Generate new ideas, develop a business case for new business models to create jobs and market access
- Introduce technical innovations based on a holistic economic assessment
- Support the replication of improved business models
- Verify that solutions suggested for VC development (such as linkages, service provision, financing) are financially attractive
- Communicate the idea to financial partners to raise funds

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BUSINESS MODELS ARE CONNECTED BY LINKAGES



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FINANCIAL ANALYSIS OF BUSINESS MODELS

1. Level: Business model canvas

- Business model analysis including some financial and technical parameters (technology, cost, prices, marketing) and main criteria to judge whether the business model may seem viable in general

2. Level: Excel sheet

- Detailed profitability analysis, break-even calculation
- Analysis of the most important parameters of the business model (e.g.: capacity utilization)

3. Level: Full investment calculation

- Can rarely be done externally by projects, responsibility of the entrepreneur himself

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CRITERIA TO EVALUATE THE QUALITY OF A BUSINESS MODEL I

Internal coherence of the business model canvas

- Business model canvas is complete with realistic statements
- Elements of the canvas fit and support each other

Financial viability

- Financial viability is key: Financial projections show that the business is likely to make money
- Financing of investments assured

Actual availability of business partners and services

- Sufficient supplies of raw material, inputs and equipment and of services (training, maintenance) are available
- Buyers / clients can be named

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CRITERIA TO EVALUATE THE QUALITY OF A BUSINESS MODEL I

Social benefits

- Poor entrepreneurs can use the business model
- Number of quality jobs created
- Fair employment conditions for workers

Environmental benefits

- Improved resource efficiency - water, energy and material inputs
- No additional emissions and waste generated

Development benefits

- Number of enterprises that can adopt the business model
- Multiplication effects: Role of the business model in the value chain for improving business opportunities for other companies, especially for micro and small enterprises

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CONDITIONS, LIMITS AND RISKS

- Business model development and financial analysis are always prone to error. The decision to invest and the risk are taken over by entrepreneurs - not by analysts.
- Outsiders often do not have access to the requisite data. Unless enterprises and companies are interested in collaborating with development agencies and a trusting partnership is created, external agencies cannot go for supporting business models.
- Analysts should not spread business secrets that individual enterprises need to stay competitive.
- There are limits to replicating interesting business models because of limited market demand and decreasing product prices in end markets.

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CLIMATE-SMART BUSINESS MODELS

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MILLING CASSAVA AND MAKING ATTIEKE, BURKINA FASO



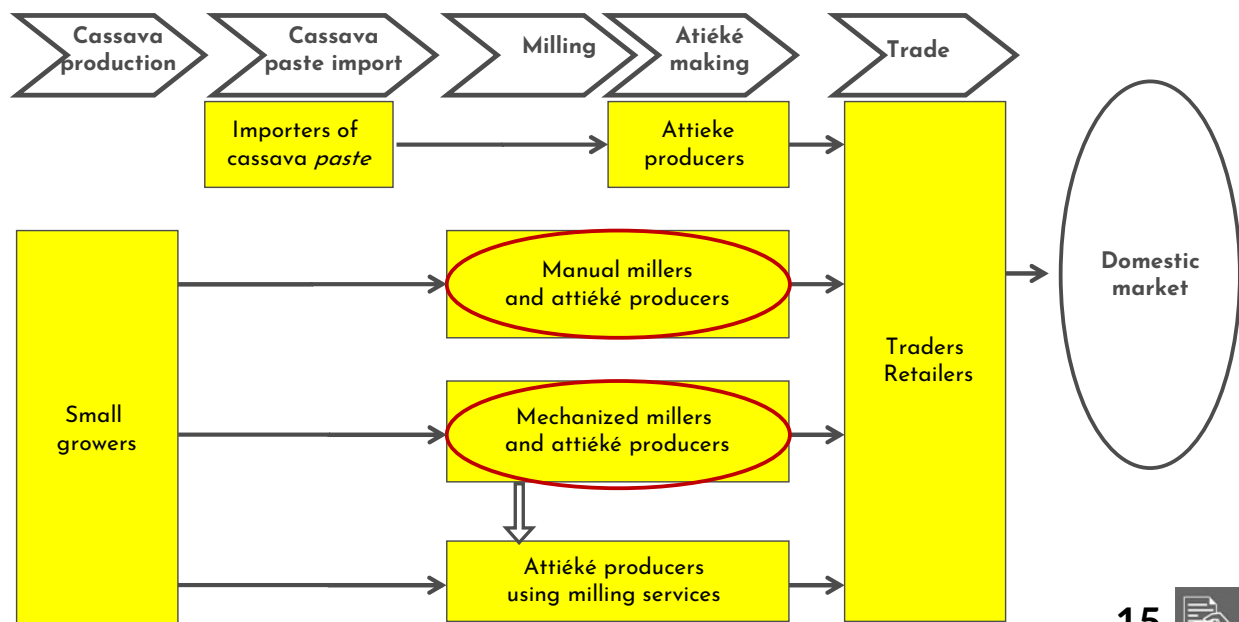
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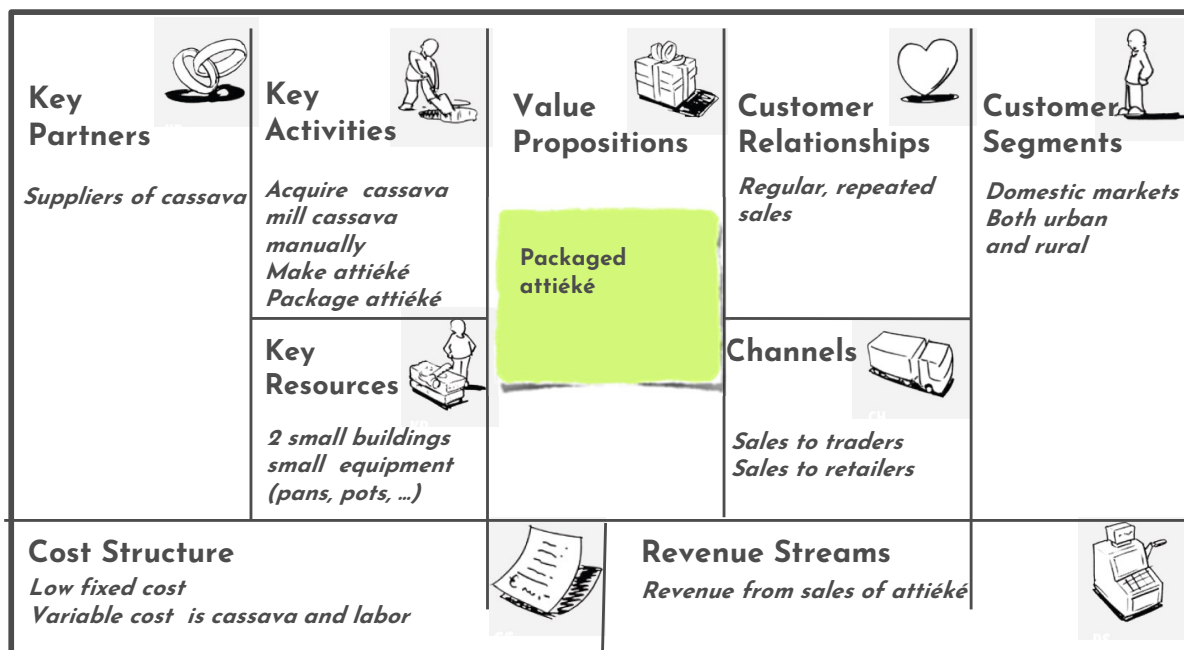


CASSAVA VALUE CHAIN












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BUSINESS MODEL CANVAS OF MANUAL MILLER AND ATTIEKE PRODUCER



BUSINESS MODEL CANVAS OF MECHANIZED MILLER AND ATTIEKE PRODUCER

 Key Partners <i>Suppliers of cassava</i> <i>Suppliers of milling equipment</i> <i>Technical service providers</i>	 Key Activities <i>Acquire cassava</i> <i>mill cassava mechanically</i> <i>Make attiéké</i> <i>Package attiéké</i>	 Value Propositions Packaged attiéké Milling service for artisanal producers	 Customer Relationships <i>Regular, repeated sales</i>	 Customer Segments <i>Domestic markets</i> <i>Both urban and rural</i>
	 Key Resources <i>Mechanical mill</i> <i>3 small buildings</i> <i>small equipment (pans, pots, ...)</i>		 Channels <i>Sales to traders</i> <i>Sales to retailers</i> <i>Sales of milling services</i>	
Cost Structure <i>Fixed cost from depreciation of mill</i> <i>Variable cost is labor and energy</i>		 Revenue Streams <i>Revenue from sales of attiéké</i> <i>And from milling services to artisanal producers</i>		

COMPARISON OF BUSINESS MODELS

Parameter	Manual miller & attiéké producer	Mechanized miller & attiéké producer
Value proposition	Packaged attiéké	Packaged attiéké (plus milling service)
Key resources - Type of milling	Manual grinder	Electric mill
Daily milling capacity, cassava (t)	0,1 ton/ day / worker	1 ton / day (max 250 days)
Labor input for milling	5 workers @ 144 days	1 worker @ 144 days
Labor input for attiéké making	3 workers @ 120 days	4 workers @ 120 days
Annual attiéké production (tons)	36,0	48,0
Long-term capital - installations (€) 1 hut for storage @ 5 m ² Cassava grinder, 3 huts @ 5 m ²	1.500	7.500
Short-term capital - implements, bags raw material and input purchase (€)	300 18.000	500 24.000
Total capital / assets	19.800	32.000

COMPARISON OF BUSINESS MODELS

Parameter	Manual miller & attiéké producer	Mechanized miller & attiéké producer
Fixed cost (FC) per annum (€) Repair, depreciation (20%), renewal of implements, interest on investment (8%)	480	2350
Variable cost (VC) per ton (€) attiéké Raw material (Cassava) Labor, Energy, water, packaging, other inputs	510	490
Sales price for attiéké per ton (€)	550	550
Contribution margin per ton (sales price - VC)	40	60
Break-even point (in tons of attiéké)	12	39
Number of workers required for attiéké making to break even	1,0	3,5
Percentage of milling capacity used to break even	Milling capacity depends on number of workers	15,6% (39 tons of 250 tons)
Service fee per ton milled for others		15

COMPARISON OF BUSINESS MODELS

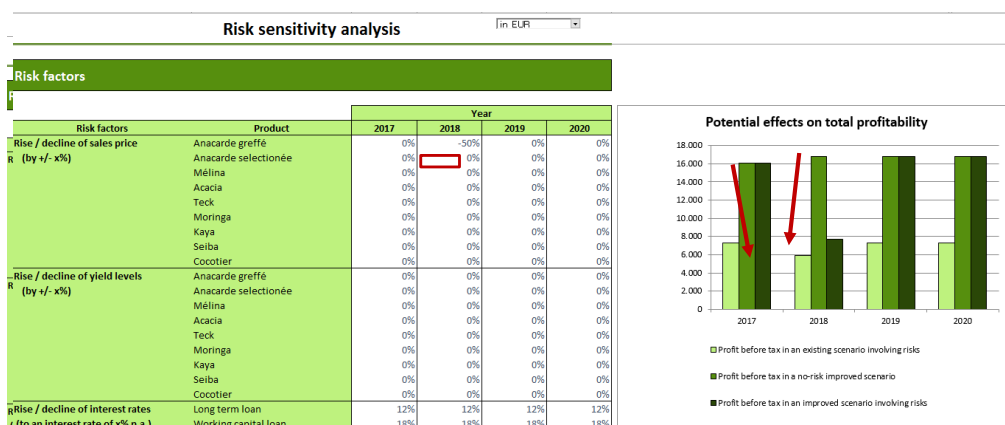
Parameter	Manual miller & attiéké producer	Mechanized miller & attiéké producer
Fixed cost (FC) per annum Repair, depreciation (20%), renewal of implements, interest on investment (8%)	480	2350
Total Variable cost (VC) per ton of attiéké	18360	23520
Total variable cost for service milling (96 tons)	0	192
Total cost	18840	26062
Total revenue for attiéké sales	19800	26400
Total revenue for service milling	0	1440
Total revenue	19800	27880
Profits per year	960	1818



AgFin Business Model analysis

Business Model Calculation Tool

- Decline of sales price by 50% for grafted Cashew Seedling
- Additional services remain the same



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CLIMATE-SMART BUSINESS MODELS

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CLIMATE-SMART AGRICULTURE BUSINESS MODEL

- **Crop management** (GAP, integrated pest management, intercropping, diversification, crop rotation, agroforestry, rotational grazing etc.)
- **Soil management** (terracing, no tillage/less tillage, mulching, conservation agriculture with minimum soil disturbance, permanent soil cover etc.)
- **Water management** (water level management, drip irrigation, water buffering zones etc.)
- **Use of innovative inputs** (C-adapted seeds, plants, animal breeds, heat-tolerant varieties, digital tools/devices for precision farming)
- **Renewable energy**, reduction of waste and food losses, use of by-products
- **Agrometeorological data**, modified crop calendars
- **Physical risk management** (wind-/firebreaks, flood control dykes, water tanks, generators)
- **Post-harvest management** (drying/storage facilities, on-farm value addition like first processing)
- **Environmental certification** (greenhouse gas emissions, carbon sequestration, increased biodiversity, organic)
- **Risk reduction by diversifying production**, improving food security and income sources
- **Improved market linkages**, e.g. contract farming for stable market access

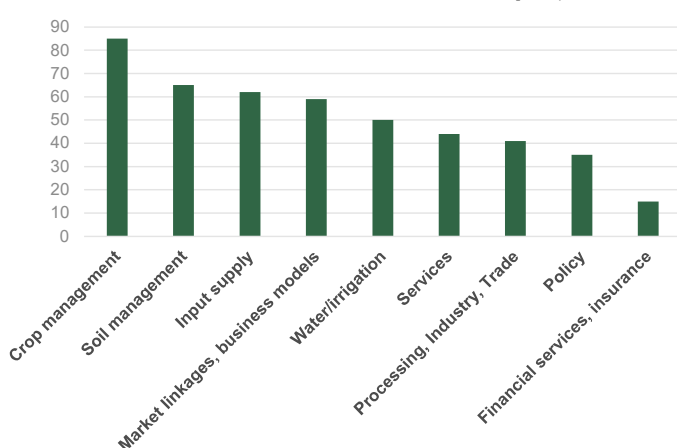
➤ Includes adaptation and mitigation measures

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CLIMATE SMART AGRICULTURE – GIZ SNRD ASIA SURVEY AUG/SEPT 2022

Area of intervention (% of projects)



- **Main hazards cited:** Pests and diseases, heavy rain/floods and/or erratic rainfall, drought, heat, higher temperature

- Crop management is the most often cited area of intervention (85%) followed by soil management, input supply, market linkages/business models, water/irrigation
- Most projects use a combination of different interventions areas
- Important topics are GAP, reduction of waste/losses, renewable energy, standards, digital tools, organic production
- Market linkages, business models: mostly realized with DPPs
- Financial services/insurance are only mentioned by 15%
- Based on data from 34 GIZ projects

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CLIMATE-SMART AGRICULTURE IN MADAGASCAR



Farafangana, Southeast of Madagascar: High yield pepper plantation



Farafangana, Southeast of Madagascar: Climate change adapted pepper plantation

Can you spot the difference?

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THE TRIPLE WIN OF CLIMATE-SMART AGRICULTURE

Increased productivity

- Produce more and better food to improve nutrition security and boost incomes

Enhanced resilience

- Reduce vulnerability to drought, pests, diseases and other climate-related risks and shocks; and improve capacity to adapt and grow in the face of longer-term stresses like shortened seasons and erratic weather patterns.

Reduced emissions

- Pursue lower emissions for each calorie or kilo of food produced, avoid deforestation from agriculture and identify ways to absorb carbon out of the atmosphere

Source: <https://www.worldbank.org/en/topic/climate-smart-agriculture>

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CLIMATE SMART TRADER/PROCESSOR BUSINESS MODELS

- Use of green energy/energy saving models for reduced greenhouse gas emissions
- Improve water efficiency/water storage
- Use ecological packaging material
- Reduce losses and waste production, use of by-products
- Avoid use of harmful/poisonous/polluting substances
- Shorten transport ways, optimize transport means
- Benefit from environmental standards and labels
- Re-location of processing industries (e.g. flood-safe)

- GIZ's Climate Expert Tool can be used for company-specific climate sensitivity analyses of SMEs in the value chain: <https://www.climate-expert.org/en/home>
- Development Partnerships with the Private Sector can be powerful to support SMEs in realizing innovative, climate-smart business models

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CLIMATE-SMART BUSINESS MODEL OF A COOPERATIVE IN VIETNAM



Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
<p>09 cooperative members, particularly minority women with traditional farming methods; 50 mango farmers applying GAP practices Local extension workers for FFS training on vietGAP; Experts from Fruit Research Institute GIZ</p>	<p>Production and sales of fresh fruit Production and sales of dried fruits, avoiding food losses</p>	<p>Sales of fresh fruit (mango, longan, ...) High quality, food safety-certified, solar-dried fruit (banana, ginger, longan, mango) with attractive environmentally-friendly packaging</p>	<p>Informal/loose linkages with local collectors, no linkages with exporters Promote brand identity, repeat sales and formal contracts</p>	<p>90% local market, 10% Chinese market Specialty shops, high value urban markets, tourist markets in Vietnam.</p>
Key Resources	Channels	Cost Structure	Revenue Streams	
<p>Personnel Storage facilities Short-term capital Factory building Solar drying dome</p>	<p>Direct sales to local collectors. Online marketing via Facebook/social media, conferences, trade fairs</p>	<p>Investment in storage facilities and short-term capital for trading fresh fruit Investment in factory building and solar drying dome, cost of packaging material, food hygiene and safety certification cost</p>	<p>Margins from seasonal sales of fresh fruit Year-round sales of high value, processed and certified green products</p>	

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