KEY NOTE SPEECH

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Taking stock & projecting apiculture value chains into the future in West and Central Africa: Win wins for livelihoods & conservation?

SNV-WCA Forestry Knowledge Network Event
1-3 June 2010, Foumban, Cameroon
Taking stock

1. What is an apiculture value chain?
2. What are the products of value chains?
3. How do these chains work in WCA at the moment?
4. How many people benefit from apiculture in WCA – directly & indirectly?
5. What income is realized from apiculture – as % of household income and absolute amounts?
6. How important is apiculture for the poorest?
Looking forward....

1. What is the potential to increase the number of people who benefit from apiculture?

2. What % increase in income can be gained from improved knowledge and skills of apiarists?

3. What are the challenges?

4. Where are the opportunities?
Methodology

**Background**
- Literature review
- Production area selection

**VCAs 2007-2009**
- Semi & structured interviews with actors all stages chains = 190 Zambia, 702 Cameroon, 379 DRC

**Interviews**
- Interviews service providers & support actors

**Action data**
- Participatory action research: SWOT, Stakeholder analysis, working sessions
- Market price tracking; Cameroon
- Monitoring, training & capacity building events

**Analysis**
- Data analysis SPSS and Excel
- Preliminary findings verified in meetings & peer cross-checked

**Outputs**
- Value chain maps; representations & visualizations
- Reports
- Policy briefs & product sheets
What’s a value chain?

“The value chain describes the full range of activities required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use.”

(Kaplinsky and Morris, (2000), A Handbook For Value Chain Research, IDRC, 113p)

Broad definition concerning all activities and actors related to a marketed product in a chain, from production to consumption

Can use to:

- Understand how relations and processes between actors and product and markets work
- Calculate values, volumes, profits, distribution and margins
- Understand how costs-benefits are embodied and distributed among actors
- Plan for interventions (development, conservation etc.) to enhance inclusion of specific groups (SMEs, women, poor etc.) in local, national and global value chains, and increase production, income and employment opportunities.
Apiculture value chain products

- Cosmetics
- Creams
- Foods
- Soap
- Medicines
- Candles
- Wine/beer
- Propolis
- Beeswax
- Crafts
- Natural products

Those that exist are often of:
- Low & variable quality
- Locally sold
- Poorly labeled
- Untested/dubious claims
- Uncompetitively priced

Simple processing is in-demand.
What do these apiculture chains look like & how do they work?
Cameroon apiculture value chains; NW & Adamaoua 2008/2009
**Zambia apiculture value chains: Kapiri honey (2007)**

**Importing companies in Eastern and Southern Africa**

- **Urban consumers (>150 km from source)**
  - **US$5 per kg shops**
  - **US$3.80 hawkers**

**Kapiri/Kabwe**

- **Supermarkets and grocery shops**
  - **P_l = K18,213**

**Lusaka**

- **Urban consumers (<150 km from source)**
  - **US$5 per kg shops**
  - **US$3.80 hawkers**

**Lunchu, Kapiri, Centre Province**

- **Local consumers (within village)**
  - **P_l = K4700**
  - **BK = 10%**
  - **Q = 13%**

- **Roadside traders**
  - **P_l = K11,800**
  - **P = K18,213**
  - **BK = 5%**
  - **Q = 1%**

- **Medium-small registered companies**
  - **P_c = K3555/kg**
  - **BK = 70%**
  - **Q = 65%**

**Marketing Channels**

- **Supermarkets and grocery shops**
  - **P_l = K18,250**

**Markets**

- **Lusaka**
  - **P_l = K18,250**

**Marketing Costs**

- **Kapiri/Kabwe**
  - **P_l = K4000**
  - **BK = 5%**
  - **Q = 1%**

**Kapiri/Kabwe**

- **Roadside traders**
  - **P_l = K4100**
  - **BK = 25%**
  - **Q = 21%**

- **Local consumers (within village)**
  - **P_l = K11,800**
  - **BK = 10%**
  - **Q = 13%**

**Lunchu, Kapiri, Centre Province**

- **Roadside traders**
  - **P_l = K18,213**

**Years of Study**

- **2007**

**P_c = price per kg comb honey**

**P_l = price per kg liquid honey**

**BK = beekeepers selling to market**

**Q = fraction of total volume produced, sold to market**

**5% production own consumption; 100% food/alcohol use**
Large registered companies

Medium-small registered companies

Supermarkets and grocery shops

Market stalls (urban)

Urban consumers (urban)

Urban consumers (>500 km from source)

Importing companies in EU, USA

Importing companies in Eastern and Southern Africa

Salujinga, Mwinilunga NW Province

Beer brewers (local)

Middlemen (only trading)

Local consumers (within village)

Urban consumers

5% production own consumption; 100% food/alcohol use

Zambia apiculture value chains: Mwinilunga honey (2007)

P_c = price per kg comb honey

P_l = price per kg liquid honey

BK = beekeepers selling to market

Q = fraction of total volume produced, sold to market

P_c = K1988

BK = 86%

Q = 83%

P_c = K2333

BK = 11%

Q = 10%

P_c = K1800

BK = 7%

Q = 7%

P_c = K3500

P_l = K11750

P_l = K16525

P_l = K18992

P_l = K16525

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P_l = K16525

P_l = K18992
DRC apiculture value chains: Equateur, Bas Congo et le Plateau Batéké (2007)
What and who benefits?

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>BENEFICARIES</th>
<th>INCOME</th>
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<tbody>
<tr>
<td><strong>Country</strong></td>
<td><strong>Region</strong></td>
<td><strong>% household in region Beekeepers</strong></td>
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<tr>
<td>Cameroon</td>
<td>Ngoundal, Adamaoua</td>
<td>68</td>
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<td></td>
<td>Kilum Ijim, NW</td>
<td>55</td>
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<tr>
<td>DRC</td>
<td>Bas Congo</td>
<td>31</td>
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<td></td>
<td>Plateau Batéké</td>
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<td></td>
<td>Equateur</td>
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<tr>
<td>Zambia</td>
<td>Mwinilunga, NW</td>
<td>50</td>
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<td></td>
<td>Kapiri, Centre</td>
<td>29</td>
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Results: Cameroon

- **Regions**: Adamaoua = 41% & NW = 30% of est. national production, high & increasing population density 70-99 inhabitants km² NW and 8/km² Adamaoua
- **History**: Traditional (NW 88%, Ad 97%), project ‘push’ 80s, market focus >5 years
- **Production technologies**: Basic & traditional, large volume, low quality, new technologies now emerging for wax processing & propolis collection
- **Ecological conditions**: rapid deforestation of montane forest, slower degrading savanna forest, forest protection/controls in NW, competing forest uses
- **Institutional context**: High level collective organization (NW n=284, Ad n=98), bio & ethical schemes at enterprise level, Geographical Indication scheme emerging
- **Regulatory context**: Unregulated national production & market, no standards, exports to Europe regulated since 2009, no interaction forestry & livestock authorities, customary rules exist but often overridden and degrading concerning forest use in NW, but good in Adamaoua
- **Governance**: high corruption levels re transport, business set up, taxes and exports, poor ‘doing business’ and ‘corruption perception’ indexes
Results: Zambia

- **Regions**: Mwinilunga 82%, Kapiri 5% est. national production, low population density 6 to 11.2 inhabitants km²
- **History**: Traditional, 150 years of trade, colonial support, government post –independence, donor push since 1970s & community owned, organic 1990s & fair trade since 2003, change to private enterprises
- **Production technologies**: 90% traditional bark hives, low level hive management, low volume 2nd processing except for beer
- **Livelihood**: Mw 50% households beekeepers, av. 73 hives, av. yield 7.4 – 20 kg, male dominated
- **Ecological conditions**: Miombo woodlands, secondary clearings preferred for diversity, in Kapiri degraded forest more regulated
- **Institutional context**: Major source foreign exchange, beekeeping Division ‘65-‘91, high level NGO/development involvement, numerous SMEs vertically active in chain, & provide support marketing
- **Regulatory context**: Govt support, national beekeeping policy developed 2008, good customary regulation for forest use
Results: DRC

- **Regions:** Equateur & Plateau Bateke, average low population density inhabitants 14.9 per km², Bas Congo, 36.5 per km²
- **History:** Traditional for own consumption, increasing trade to urban areas
- **Production technologies:** 78% wild harvest, 22% hives (of which 21% traditional 78% modern), low rate of secondary product transformation
- **Livelihood:** Mw 50% households beekeepers, average 7 hives, average yield 10 liter per hive & 8 liter wild, 60-80% males along chain
- **Ecological conditions:** Savanna and degraded forest, plantations
- **Institutional context:** 56% producers organised (projects), many small scale and individual actors, approx 18 producer organisations – selling average 30 litres annually
- **Regulatory context:** Little govt support, some donors & religious
Win: Livelihoods

Employment, income & production

Annual value

KIN

US$ 2,006

(2007)

Annual value

US$ 5.6 million

(2009)

Annual value

US$ 1.6 million

(2003)

Annual value

US$ 2,006

(2007)

5005 tons honey

235 tons wax

>125 SMEs & 2 large enterprises

>18 micro/SMEs

11% consumed/use

83% sold

5% gift

>600 people directly involved production

>25,000

>1,000?

>13.7 tons honey

≈2 tons wax

>17,640 people directly involved production

Mwinilunga NW

>125 SMEs & 2 large enterprises

Honey exports

US$800,000

1500 tons honey

400 tons wax

>700 people directly involved trading, marketing, processing, sales

>500 micro/SMEs

>4,559 people directly involved production

NW

>21,361

>10% consumed

90% sold

>12,000 people directly involved production

Adamawa

5% consumed

95% sold

Honey & wax exports

66 -100 tons pa

>500 micro/SMEs

10% consumed

90% sold

>12,000 people directly involved production

Adamawa

Honey exports

US$800,000

1500 tons honey

400 tons wax

>700 people directly involved trading, marketing, processing, sales

>500 micro/SMEs

10% consumed

90% sold

>12,000 people directly involved production

Adamawa
Inherently unsustainable practices: bark hives (Z), water & charcoal use in wax production (C), smoking techniques (DRC, C, Z)

Little positive evidence despite conservation rhetoric

Projects end - protection levels decrease & degradation continues (C)

Hive trials show secondary forest just as productive (Z)

Loss of honey types due to decreasing forest: white montane honey (C)

Forest health and honey production links explicit before local beekeepers act e.g. hive materials (C, Z)

If apiculture insufficiently valuable & not a high livelihood priority - it doesn’t outweigh other beekeeper & conflicting external interests
Loosing: Conservation (long term)
Forest management & protection


Kilum Ijum forest
0.37% pa = 0.0017 ha/pa
deforestation

Cameroon average
0.14% = 23,627
ha/pa deforestation
&
0.1% pa = 1688 ha/pa
degradation

DRC average
0.21% pa = 197,824
ha deforestation
& 0.12% pa = 118,695
ha/pa degradation

Zambia average
1% (900,000 ha)
 pa deforestation
Making the value chain work better...

Negative aspects
• Unclear/usufruct land tenure = conservation disincentive
• Open access to forest = tragedy of commons
• Conservation focus ignores livelihoods aspects & forest use conflicts – dual approach needed for long term sustainability
• Production rather than market focus discourages beekeepers
• Entering specialty & export markets = high cost for small, local, remote organizations with unsure and marginal profits
• Importers have hands in both countries honey pots- restrictive market control or collaboration/learning opportunity?
• Collective action without ‘good’ governance = over-organized, high cost, inefficient organizations and ultimately ‘death’
• Dependency on export markets enables cash income & can increase market scale & quality, but creates credit access problems
• Remoteness can be a cost and market barrier
• Many small, unconnected organizations and actors = inefficiency, lack of exchange on technology and market information.

Positive aspects
+ new market chains and new markets = increasing opportunity for beekeepers
+ hive trials indicate ease & sustainability of modern hives but little quantity or quality difference
+ deregulation opens up competition
+ external actors ‘brokers’ promote information/sector exchanges
+ remote forests = naturally organic, pest free, highly resilient
+ successful income & high value = incentive for forest management

Zambia:
KTB, bark and mud hives
HONEY
• Price increases up to 25% for quality honey in urban markets
• Export markets in general offer lower price UNLESS in high volume e.g. urban market in Cameroon 4.12 € 2700 FCFA/kg; Export 2.50 €/1592 FCFA (certified).

WAX
• Quality can increase e.g. black to yellow increase by 29% and organic certification by 49%.

PROPOLIS
• Exports up to 50% higher price than some local markets but quantity and quality standards needed.
Numbers
• Large production increase possible - estimates difficult – limiting factors are access to land, available good quality forest & other forage, training & marketing

Who
• Women & forest users

Routes
• Harvest other hive products
• Process by-products/increase range of processed products
• Invest in marketing outside of production zone
• Invest in differentiation:
  o Quality: packaging & labeling
  o Volume: high volume, lower value,
• Certification an option for export markets
• Geographical Indication option in Kilum-Ijum
• Apiculture is not (yet) a pathway out of poverty

But
• Augments average household incomes
• Provides important source of cash
• Where little or no alternative sources of income, apiculture is vital in preventing sinking deeper into poverty
• Apiculture products increases and diversifies household cash incomes
• Vital for remote communities, marginalized ethnic groups and women

Poverty prevention more than alleviation
Opportunities & challenges

• Introduction of modern technologies allows more women to get involved in production
• Women already active in adding value – especially in Zambia
• Low entry barriers: both poor & and wealthy households keep bees (low costs, ease of entry & potentially high returns
• Lost opportunity: Low level value-adding in both countries despite wide range of options available (low tech & cost): e.g. candles, creams, wines, beers
• National and African regional markets highly promising and easy to reach
• Export & specialty markets increasingly open (propolis, organic, ethical & fair trade, community trade etc.)
• Need strong, financed national institutions coordinating sector support, with clear roles and responsibilities and supporting legal frameworks to enforce and protect.
• Increased coordination and networking facilities (stakeholder platforms, trade fairs, etc.) to avoid duplication & improve collaboration
Livelihoods ‘win’ and conservation ‘looses’, unless......

• Apiculture is more highly valued (economic, social & legal aspects and values)
• The value of apiculture is sustained over a long term = vicious circle!
• Can compete favorably with other forest uses & population pressure
• Unlikely that apiculture alone can achieve MDG goals of poverty alleviation & environmental sustainability.
• ......instead consider apiculture as one activity in diversified livelihood portfolio
• External factors also have a major impact (agriculture, industry, infrastructure, market access political culture....)
• Value chain approach taken with business focused support and capacity building for associations, cooperatives and service providers
• Coordinated and inter-sectoral policies and institutions created.
Thank you plenty!

Special thanks to Guiding Hope & Rebecca Howard for data and photos!

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