Honey

Small-scale Review of Honey

Short analysis of demand and supply in the honey sector

March 2008

Prepared by the Center for Agricultural Policy with Prosperity Initiative

Supported by: The Australian Agency for International Development (AusAID); The Swiss Agency for Development and Cooperation (SDC), Oxfam Hong Kong (OHK) and Oxfam America (OA).

Foreword

This is one of a group of studies carried out by staff from the Center for Agricultural Policy (CAP) of the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD), the think-tank associated with Viet Nam's Ministry of Agriculture and Rural Development (MARD). This work has been supported under the management and technical guidance of market experts from the Market Strategy Team at Prosperity Initiative (PI), a non-profit company which develops market sectors to create prosperity for large numbers of poor people in the Mekong Region.

Prosperity Initiative and its partners find and develop sectors with the potential to reduce poverty for hundreds of thousands of people. It works with public, private and development organisations across the Mekong Region to identify and implement viable and sustainable ways of developing and growing a sector to achieve a measurable impact on poverty.

One of Prosperity Initiative's main activities is its National Market Leadership Programme (NMLP). NMLP's initial project in 2008 has been with CAP, a key market policy centre under IPSARD. Given IPSARD's central role in rural policy development and its mandate to develop a commodity expert group, the NMLP's immediate priority has been to contribute to the development of appropriate skills and market knowledge in CAP/IPSARD.

A group of staff from CAP has been working with the Prosperity Initiative Market Strategy Team since the beginning of 2008 to complete ten short sector studies during the inaugural year of the formal Prosperity Initiative-CAP/IPSARD collaboration. This work has also included contributing joint research on the coffee industry, and – arising out of one of the short studies – providing support to a continuing in-depth study by Prosperity Initiative on the coconut industry. This joint work has been the context for technical skills development and capacity building of 9 staff from CAP-IPSARD during 2008.

The first set of the ten studies carried out by apprentice staff from CAP with supervisory input from the Prosperity Initiative Market Strategy Team covered honey, bananas and groundnuts. The majority of the work in the studies was carried out by staff from CAP using both primary research in Viet Nam and data from local and international secondary sources with guidance and coaching from PI's managers.

Samples of this work can be downloaded at http://www.prosperityinitiative.org/ and can be viewed as examples of the output from the NMLP and as documents of interest in their own right to researchers and others seeking information about particular sectors in Viet Nam and agricultural and rural development in general. Further studies will be posted on Prosperity Initiative's website in the future as its work with CAP develops. During this work carried out by CAP with support from Prosperity Initiative, appropriate efforts have been made to ensure accuracy and to acknowledge secondary data sources; any error of omission or commission or any misattribution is accidental.

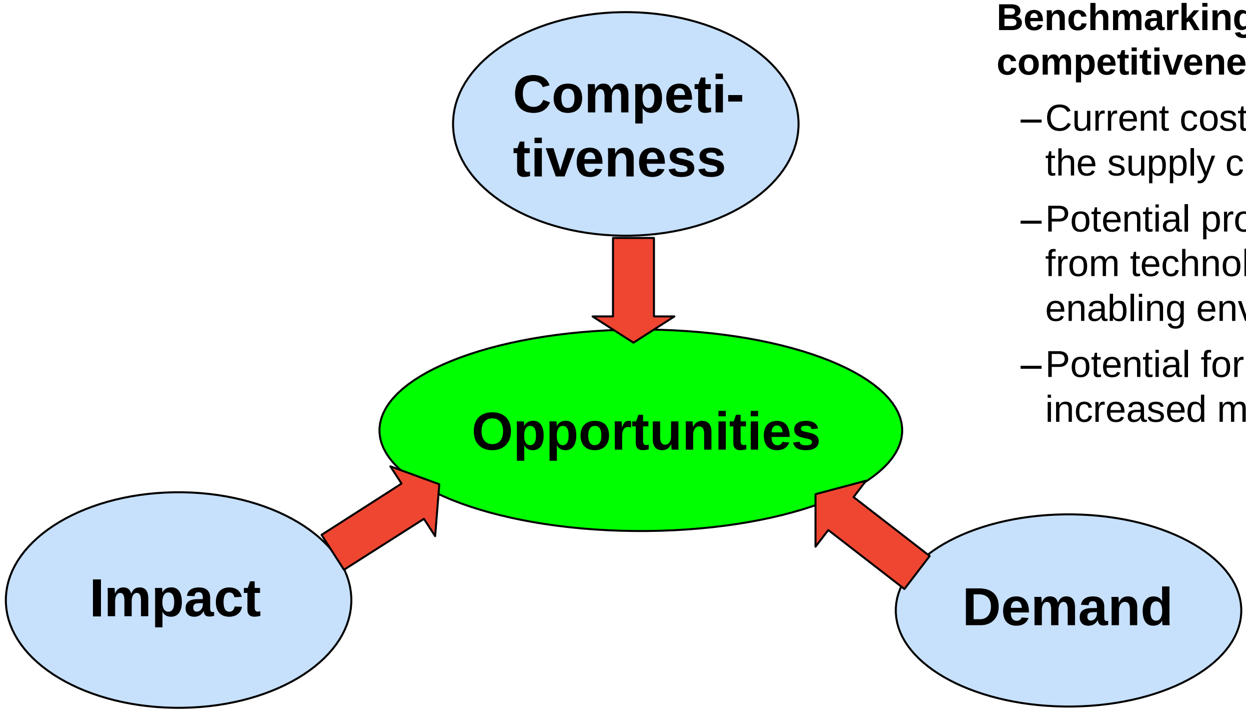
This is the first of a series of small-scale studies carried out by the Center for Agricultural Policy* supported by Prosperity Initiative to identify opportunities to assist in eradicating poverty in rural Vietnam through market forces.

While small in scope, these studies seek to provide provisional answers to several questions:

- Is there likely to be sufficient future demand, i.e. a domestic or international market with the willingness and ability to spend on the relevant commodity?
- Are there international benchmarks to support the case for industry investment in Viet Nam as against other countries?
- What other opportunities are there to enhance the competitiveness of the industry in favour of the target group of poorer people?
- How is development of the industry likely to benefit poor people in the rural areas of Viet Nam?
- Why should a target poor group choose to make their livelihood from the commodity rather than an available alternative?
- Does the sector look sufficiently promising in terms of potential size and impact on rural poverty to merit more in-depth review/feasibility?
- If the sector presents opportunities for a reduction in poverty, are CAP and Prosperity Initiative best placed to take this further or how should it otherwise be handled?

* The Center for Agricultural Policy (CAP) is a semi-autonomous center within the Institute of Policy and Strategy for Agricultural and Rural Development (IPSARD) within the Ministry of Agriculture and Rural Development (MARD) of the Government of Viet Nam

Achieving poverty reduction at scale through market forces requires an assessment of the demand and competitiveness in the sector with potential to have a positive impact on household incomes.



Benchmarking and analysis of competitiveness

- Current costs of production along the supply chain
- Potential productivity gains, e.g. from technology, skills, sector-enabling environment, etc.
- Potential for market access and increased market share

Distribution of potential benefits

- Pro-poor economic impact
- Environmental impact
- Social implications

Understanding market dynamics

- Supply, demand, stocks and prices
- Market outlook
- Scale of production supportable by future demand

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Market Dynamics - Agenda

- Market segmentation
- Demand:
  - Global consumption
  - Import
  - Drivers for demand
- Supply:
  - Global production
  - Export
  - Supply chain
  - Drivers of supply

Segmentation | Demand | Supply

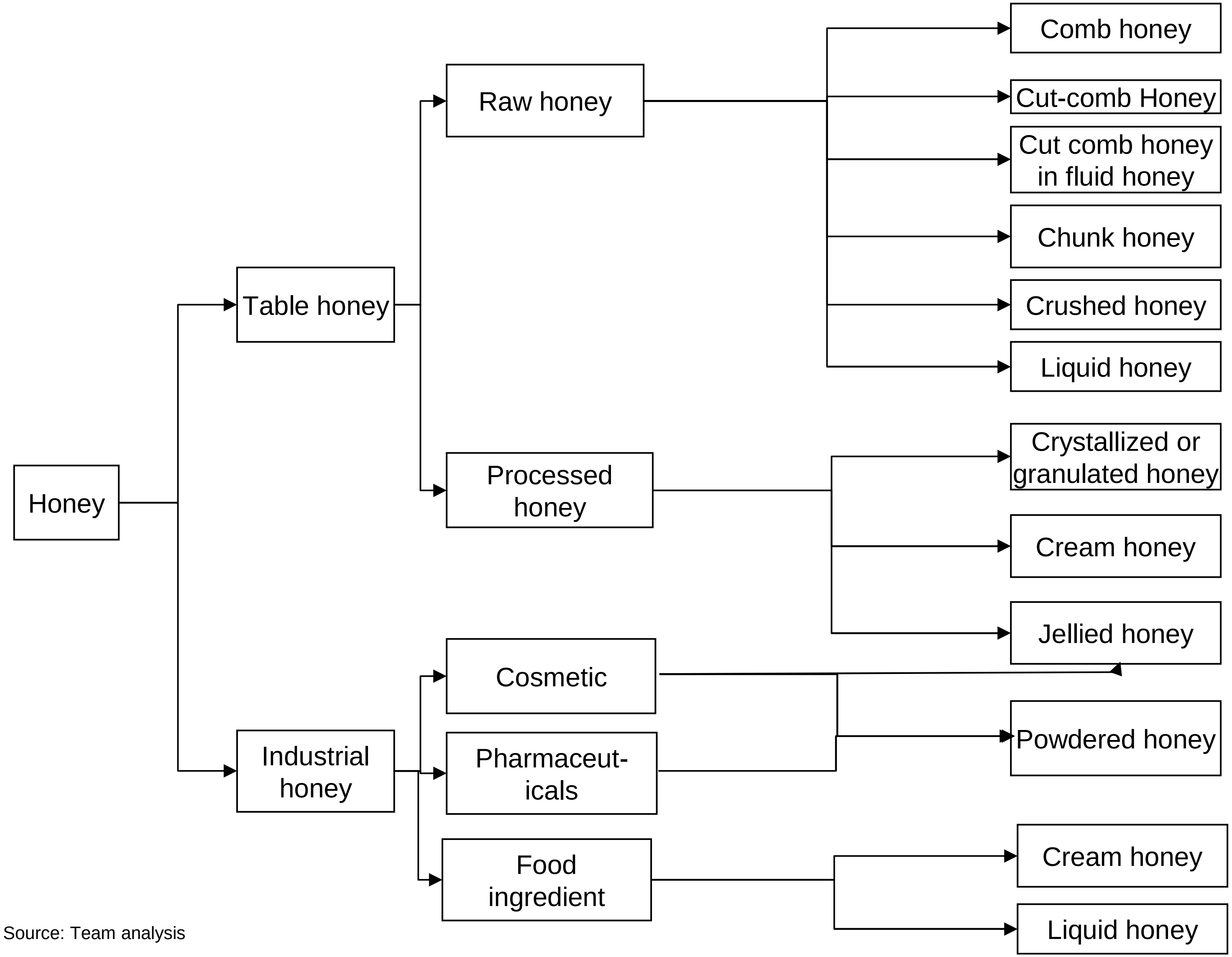
Market Segmentation

The honey market is segmented into table honey and industrial honey

Type of honey	Table honey	Industrial honey
Definition	• For direct consumption	• For further industrial processing
How to use	• Spread on bread and toast • Use as sweetener for drink and food	• Medication (restore health after sickness) • Bandages for treating burn wounds • Baked products, confectionary production, breakfast cereal, ice cream…
Users	• Final consumers	• Pharmaceutical producers • Cosmetic producers • Industrial users such as bakers
Quality	• Does not contain any added food ingredients, any organic or inorganic matter foreign to natural honey	• Lower quality honey: – Has a foreign taste or odour – Has begun to ferment – Has been overheated

Source: Team analysis and Ceres Company, Dec 2002, "EU marker survey"

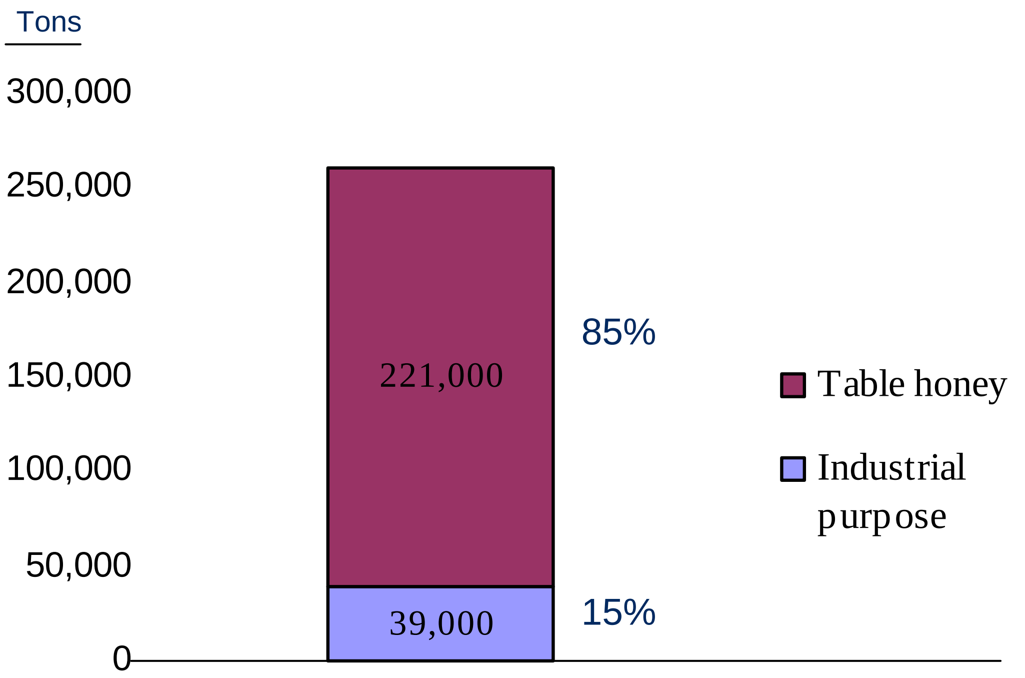
Table honey is consumed in a large variety of products



Source: Team analysis

In the EU, 85% of honey is sold as table honey

Honey consumption in EU market in 2002



- Europeans, like other nations, prefer to use honey directly because it is a natural product and thought of as good for health.
- Honey is more expensive than other sweeteners and can be substituted by artificial material in pharmaceuticals

Source: Ceres Company, Dec 2002, "EU marker survey"

Segmentation | **Demand** | Supply

Demand

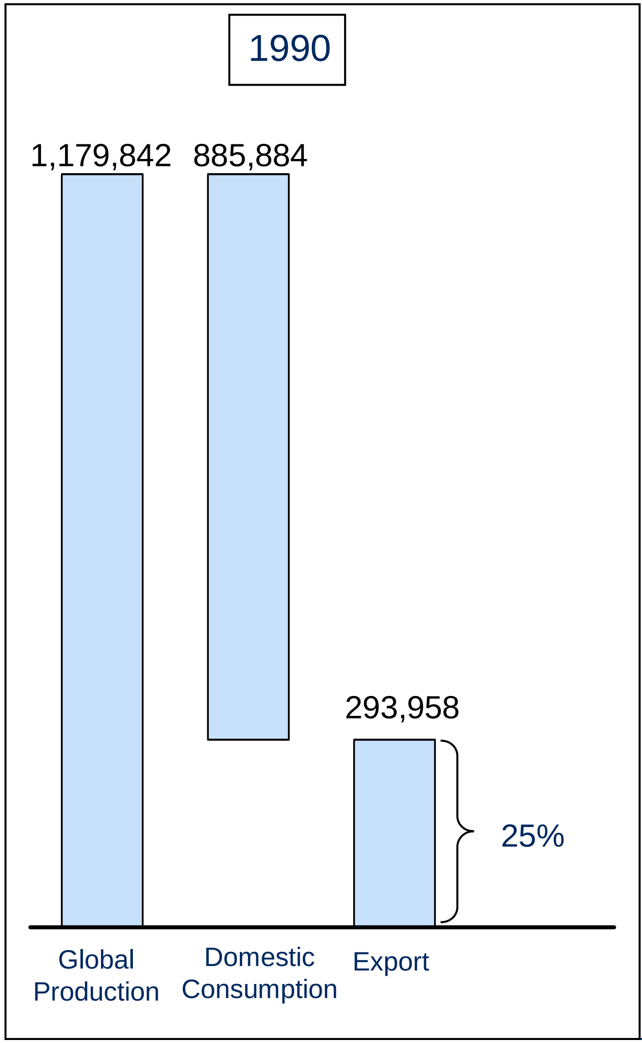
- Global consumption
- Imports
- Drivers of demand

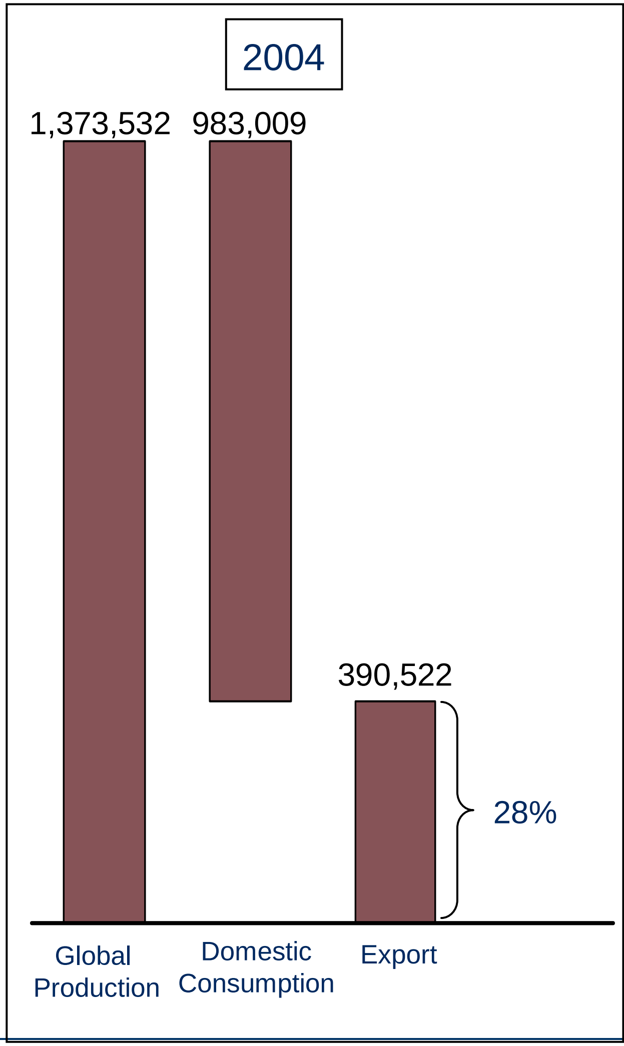
- **Global consumption**
- Imports
- Drivers of demand

Most honey is consumed domestically in producing countries; only 25 – 28% of production was exported between 1990 – 2004.

Domestic production, consumption and Exports 1990 - 2004

Units: tons





- Honey production is small in many countries. Honey is **primarily for domestic consumption**, and the extra is exported.
- Honey trading is concentrated in the EU, US and Japan, accounting for 86% of total 390,522 tons. These markets require **high quality and regulations;** therefore, restriction to enter these markets is high.

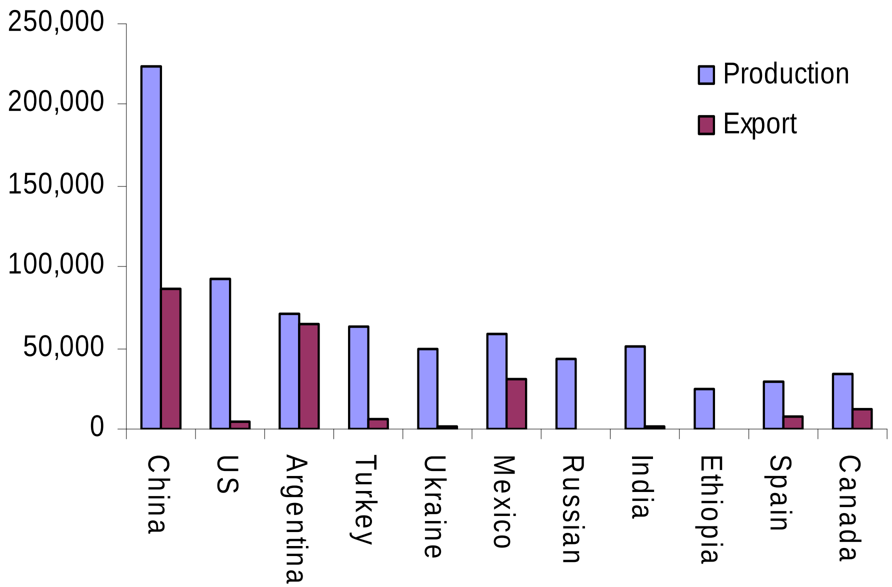
Source: FAO

*: Domestic consumption=Global production - export

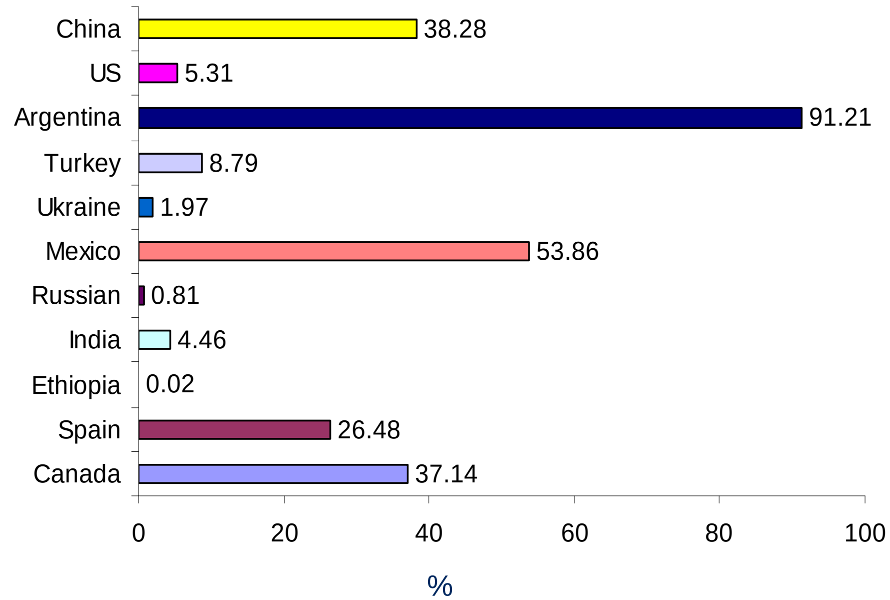
The extent to which countries consume their own honey products varies widely.

- Among the 10 biggest production countries, all countries except Argentina and Mexico had a share of exports in total production of lower than 50%.
- Spain and Canada had a high share of exports in total production, but their import volumes were nearly equal to their export volumes.

Average honey production and export volume of 10 biggest production countries from 1990 - 2004



Share of export in total production of 10 biggest production countries from 1990 – 2004*



*: Based on average from 1990 - 2004

Source: FAO

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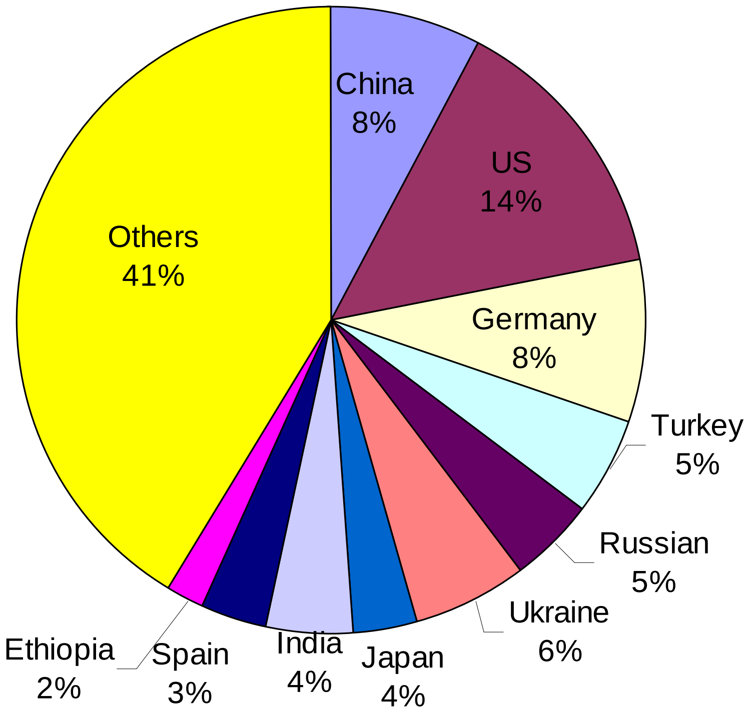
China has become the world's biggest honey consumer, significantly increasing its share of the global market from 8% in 1993 to 16% in 2004.

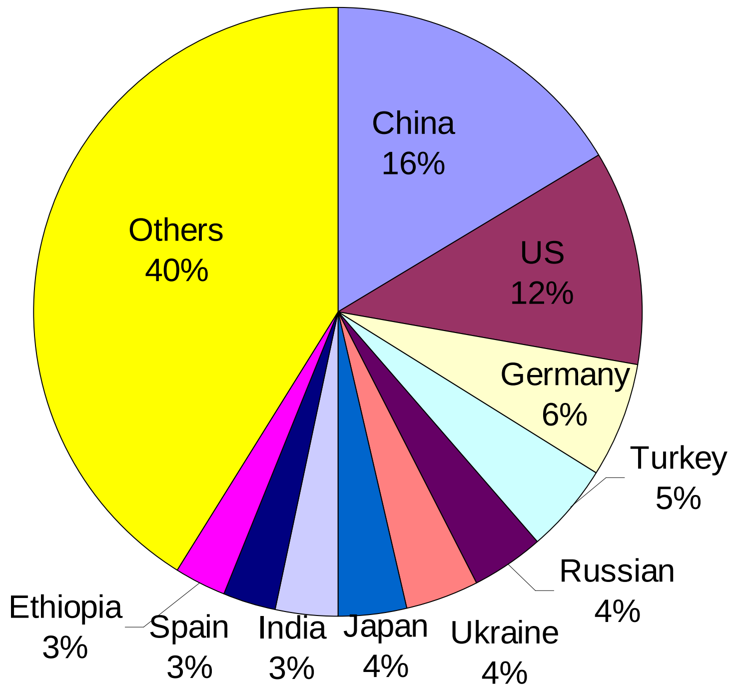
Change of share of honey consumption 1993 and 2004

Total 100% = 1,132,581 tons



1993

Total 100% = 1,380,822 tons



2004

Source: FAO

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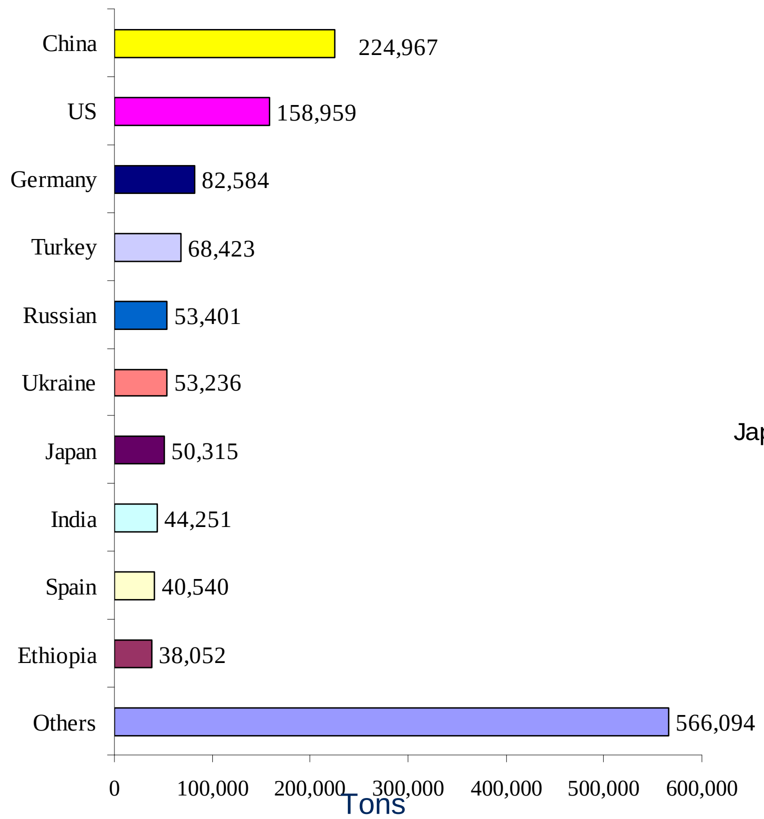
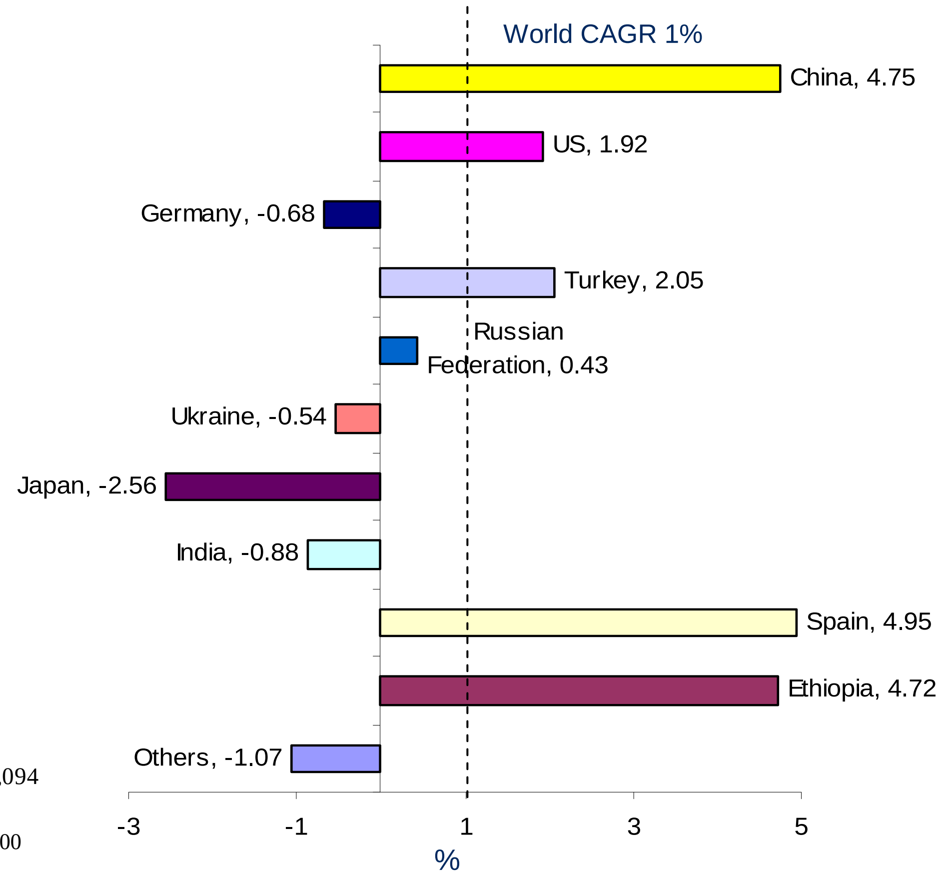
China, Spain and Ethiopia had the fastest growth rates among the 10 biggest consuming countries with nearly 5% CAGR from 1990-2004.

Honey Consumption 2004



CAGR 1990-2004



Source: FAO

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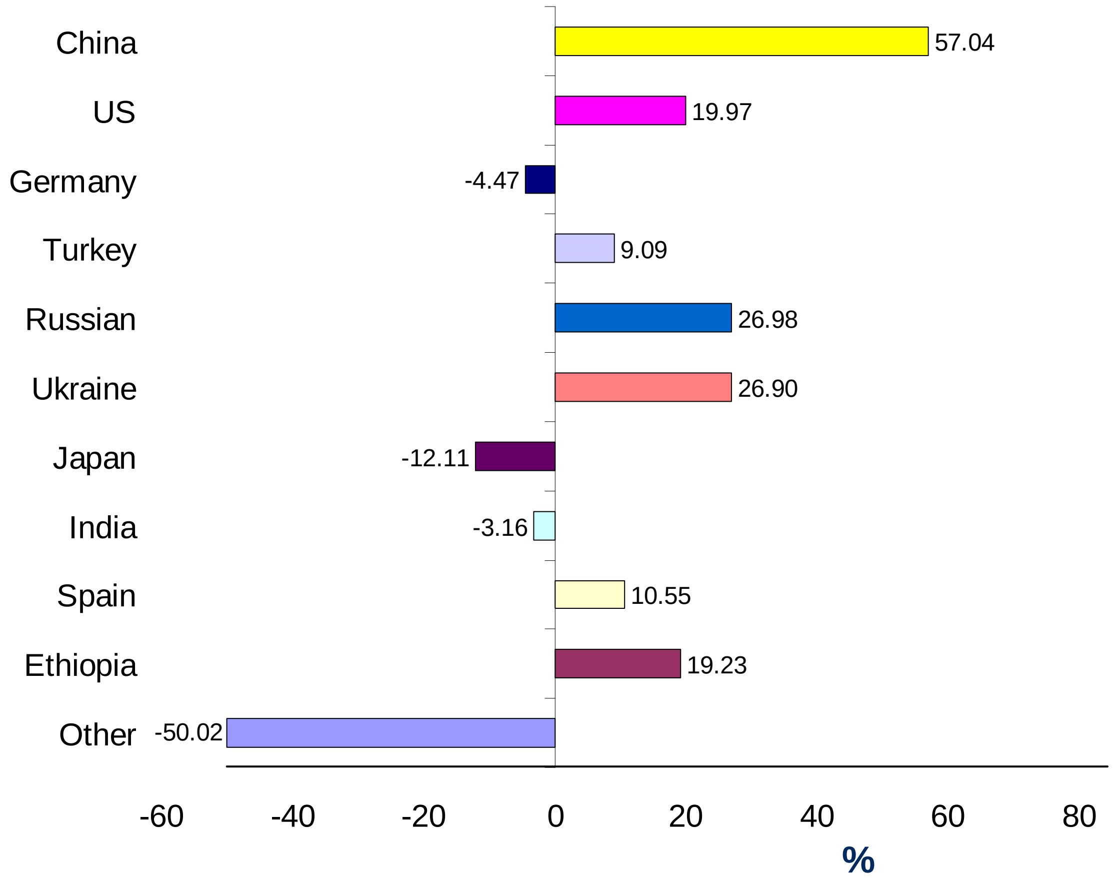
Most additional honey consumption since 1990 took place in China.

Share of additional consumption* of honey in the world

100% = 197,898 tons



- Chinese honey consumption was nearly two times higher in 2004 than in 1990, and **its additional consumption was slightly above its additional production** (109,000 tons consumption compared with 103,000 tons), partly because of its economic growth leading to honey becoming an affordable product.
- The same situation appeared in Russia, Spain and Ethiopia. Even in the US, production decreased while its consumption increased.

Source: FAO

*: consumption in 2004 – consumption in 1990

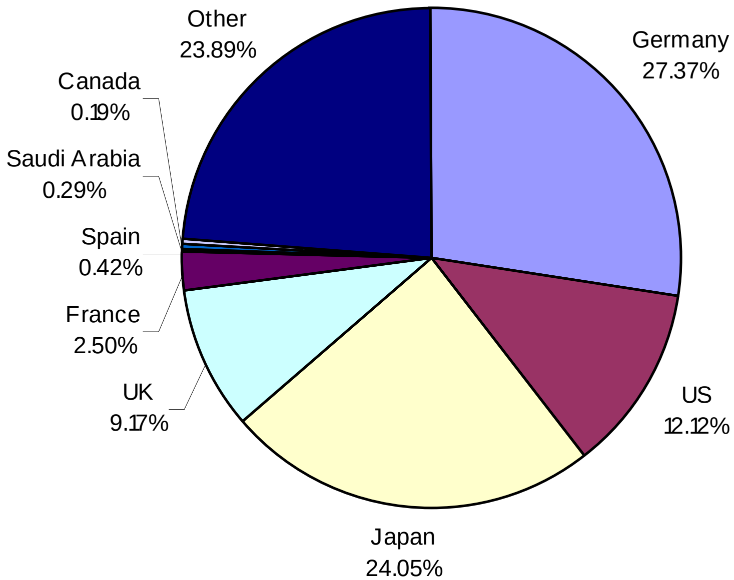
- Global consumption
- **Imports**
- Drivers of demand

Germany and the United States were the biggest importing countries in 2004 with more than 20% market share each.

Share of honey import market 1990-2004

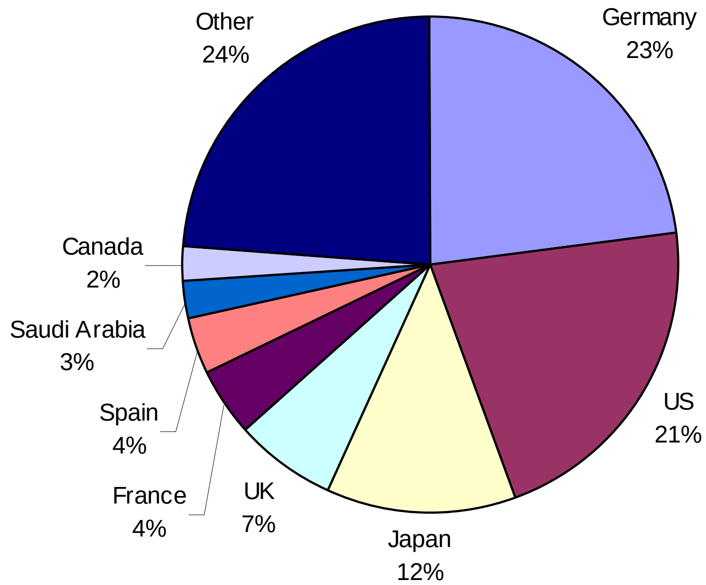
1990

Total 100% = 293,958 tons



2004

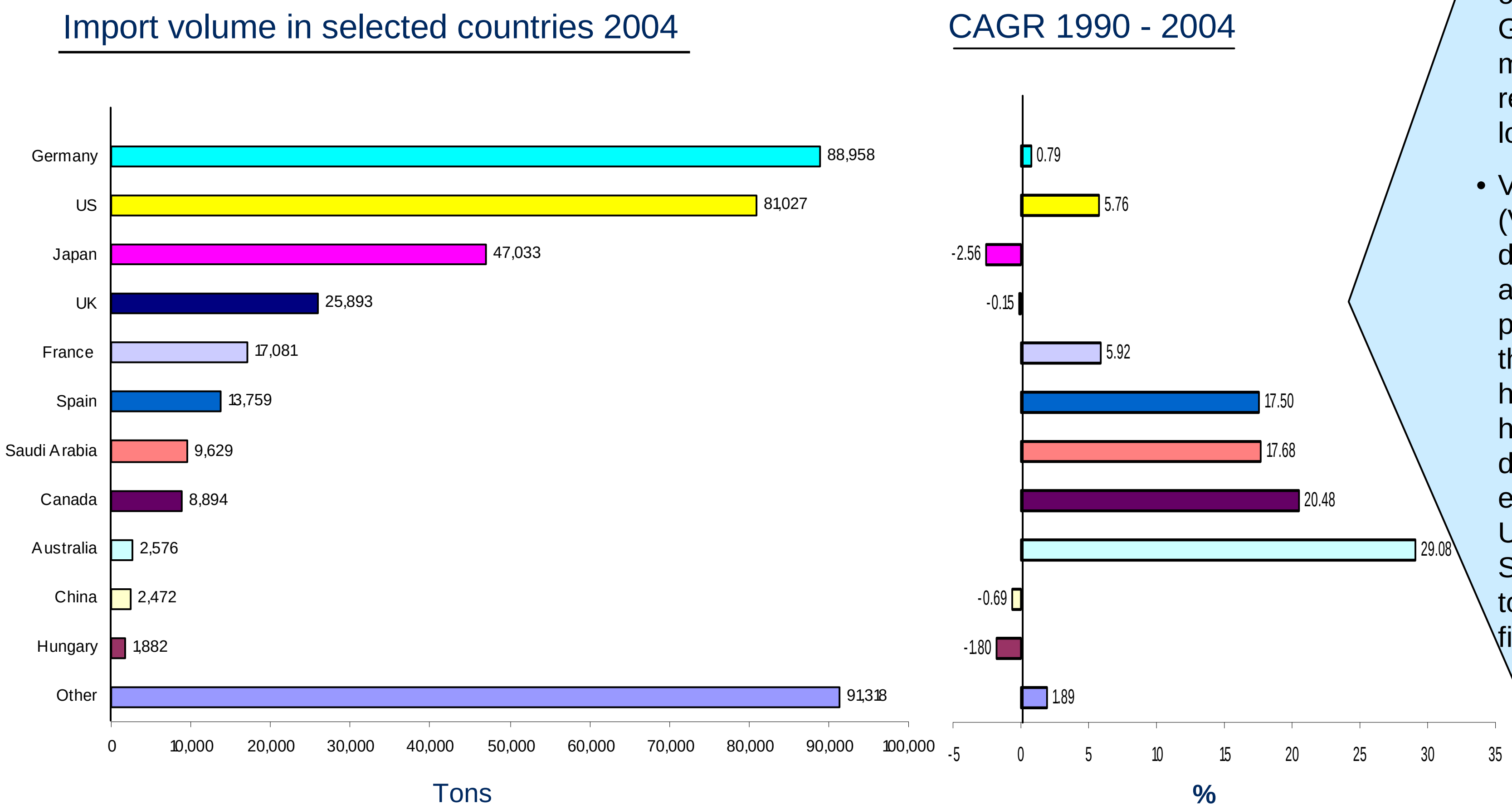
Total 100% = 390,522 tons



- The import growth rate was 1.9% p.a. from 1990 to 2004.
- 8 main honey importing countries account for 75% of the share of world honey import market.
- World honey imports are mainly concentrated in Europe. North America and Asia are in the next place. Germany is the largest honey importer in Europe.
- Honey import share of Germany and Japan decreased, especially Japan's share, which reduced nearly two times.

Source: FAO

The import growth rate for Germany was lower than the world average. US growth was much higher, as was the growth of emerging potential countries such as Saudi Arabia, Spain, and Canada.



- The maturity of the German market is reason for its low CAGR
- Varroa mite (Varroa destructor is an external parasitic mite that attacks honey bees) has had a devastating effect on the US industry. So they have to import to fill the gap

Source: FAO

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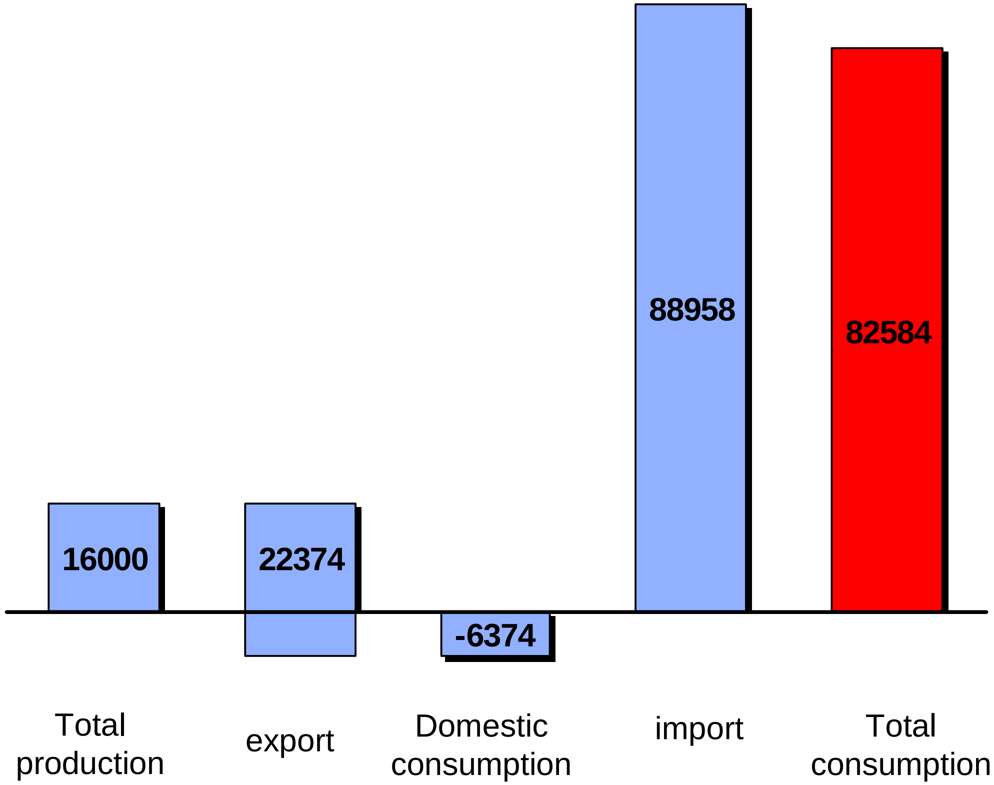
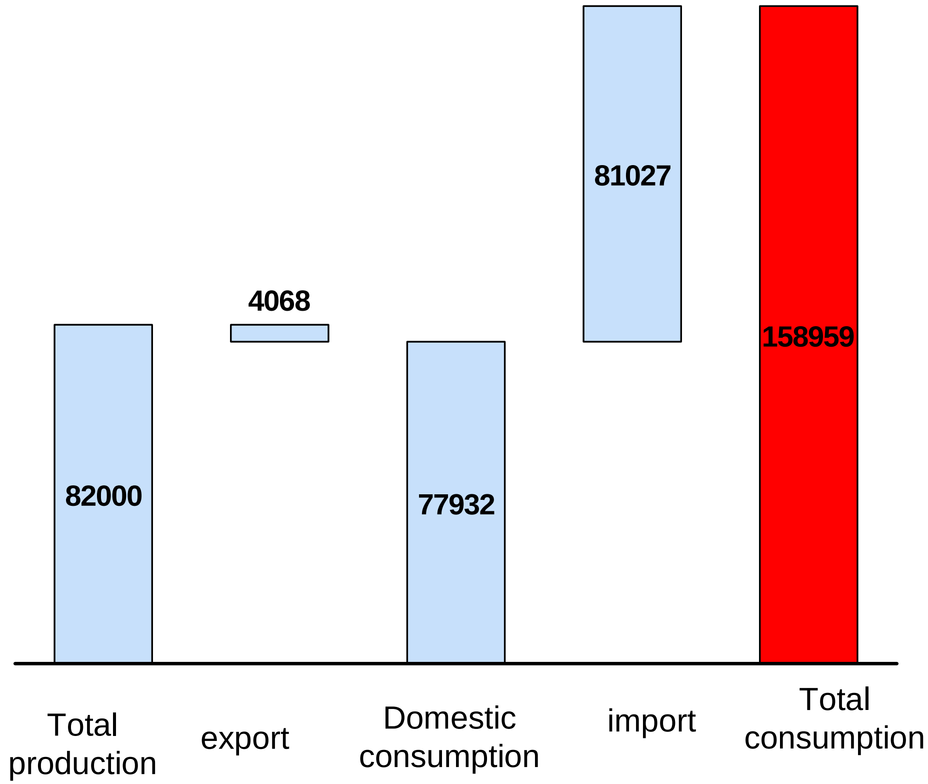
Germany: the largest potential market for honey export countries



- Germany is by far the leading honey market in the EU. It consumes 90,000 tons of honey annually
- Domestic production of honey is large but far from enough to satisfy the demand of the German consumer.
- Developing countries have a 71% share in Germany's honey imports.

Source: FAO, Center for the promotion of imports from developing countries

US: The second largest annual consumer

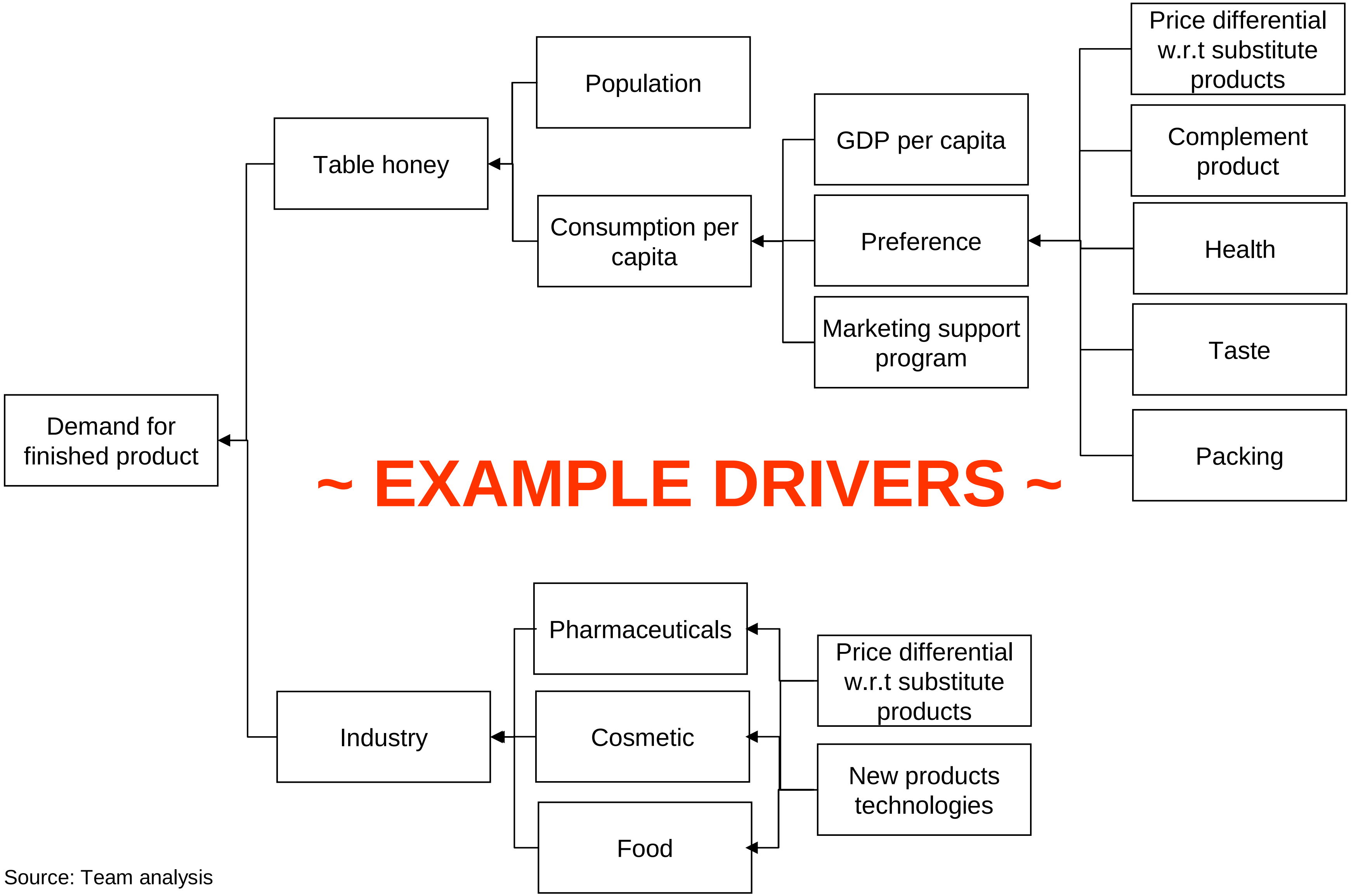


- The US is the second largest honey producer as well as consumer.
- However, nearly all of its production is for the domestic market, and current supplies do not meet demand. Varroa mite has had a devastating effect on the US industry.
- Imports fill the gap.

Source: FAO – Center for international economics (Canberra & Sydney)

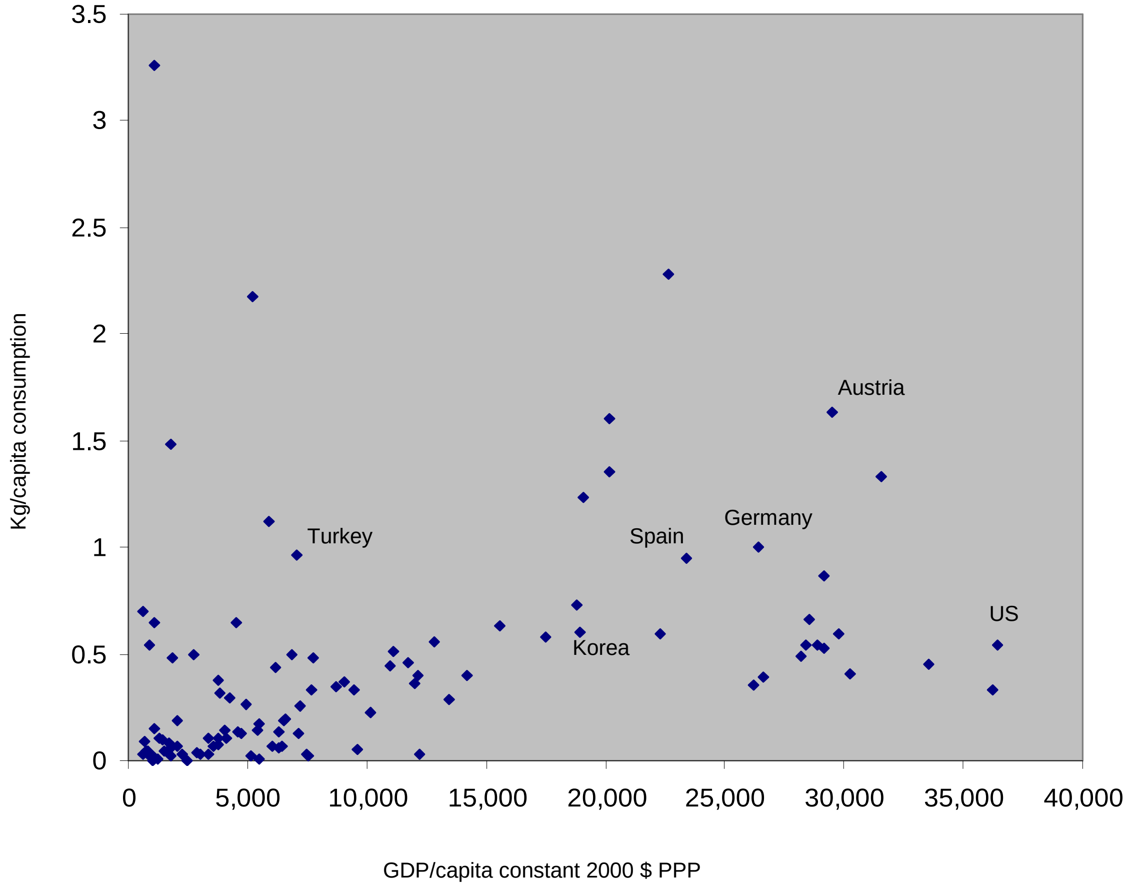
- Global consumption
- Imports
- **Drivers of demand**

Global honey demand is driven principally by consumption per capita



Source: Team analysis

In general, higher consumption of honey is associated with higher income.



- People in developed countries use much more honey than those in developing countries.
- When GDP per capita reaches a certain level, consumption ceases to be materially affected by income.

Source: FAO, World Bank

Overview of factors affecting preferences

Type of honey	• State (solid, liquid or screamed honey) • Origin (mono-floral: Single botanical source, Poly-floral: Several botanical sources) • Colour: The colour may vary from nearly colourless to dark brown
Substitute products	• Corn syrup • Spread market (peanut, butter, jam) • Jelly • Sugar
Complement products	• Value added for other products
Health	• New science indicating food’s protective elements (e.g. nutraceuticals) and the number of industries looking for more natural-health promoting, healing or nostalgic ingredients are opportunities that are capable of positively impacting the demand for honey.

Source: Team analysis

Types of honey: there are significant differences in consumer habits and preferences in the various consuming countries

	Colour	Origin	State
UK			Creamed or set honey
Germany		Monofloral honey	Liquid
France		Monofloral honey	
Denmark	Light (small demand for dark colour)		

Source: Export Opportunities for African Organic Honey and Beeswax **- CBI**

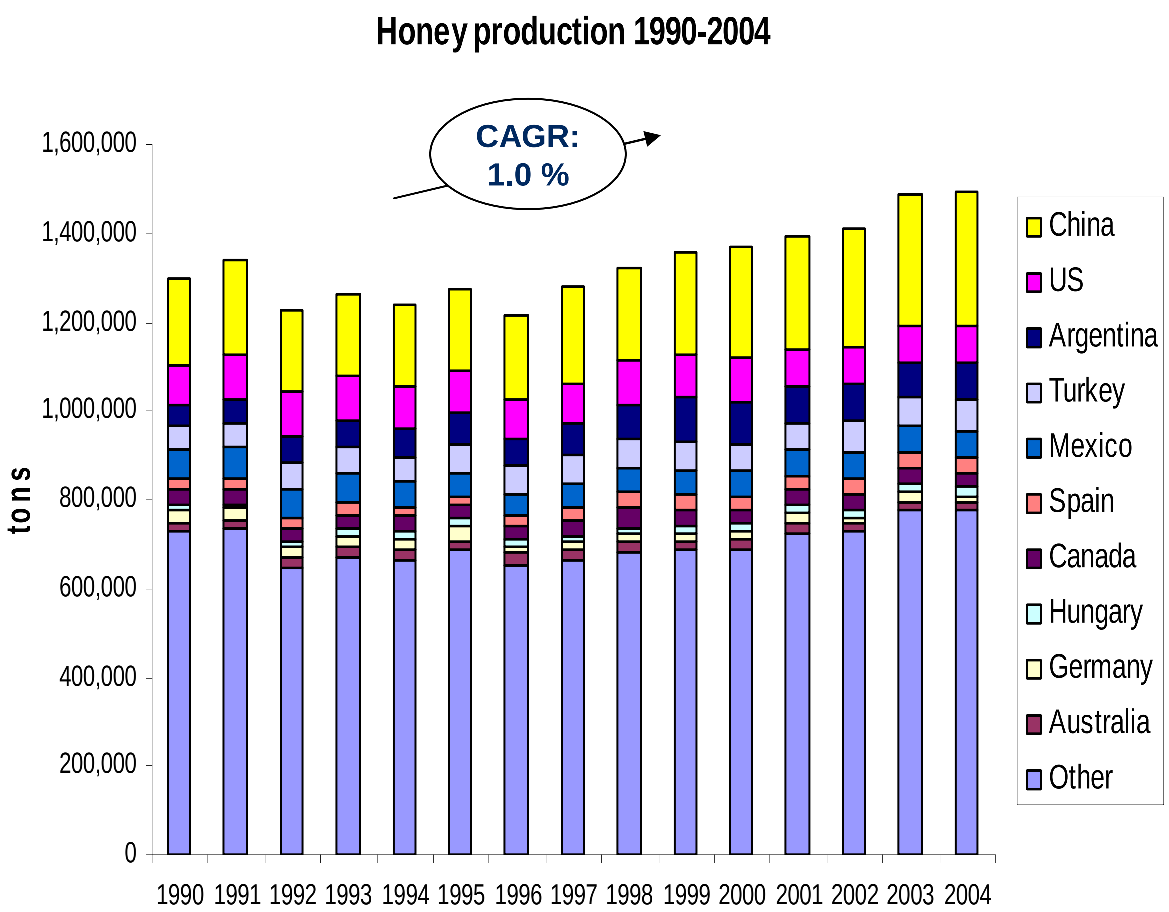
Market Segmentation → Demand → **Supply**

Supply

- **Global production**
- **Export**
- **Supply chain**
- **Drivers of supply**

- **Global production**
- **Export**
- **Supply chain**
- **Drivers of supply**

World honey production increased at a CAGR of 1.0% from 1990 to 2004.



Source: FAO

- World honey production increased **1% CAGR** from 1990 to 2004.
- Production of honey decreased and fluctuated after peaking at 1991 until 1996 when production increased regularly
- **China** is the **biggest honey producing country** and **significantly influences** world production.

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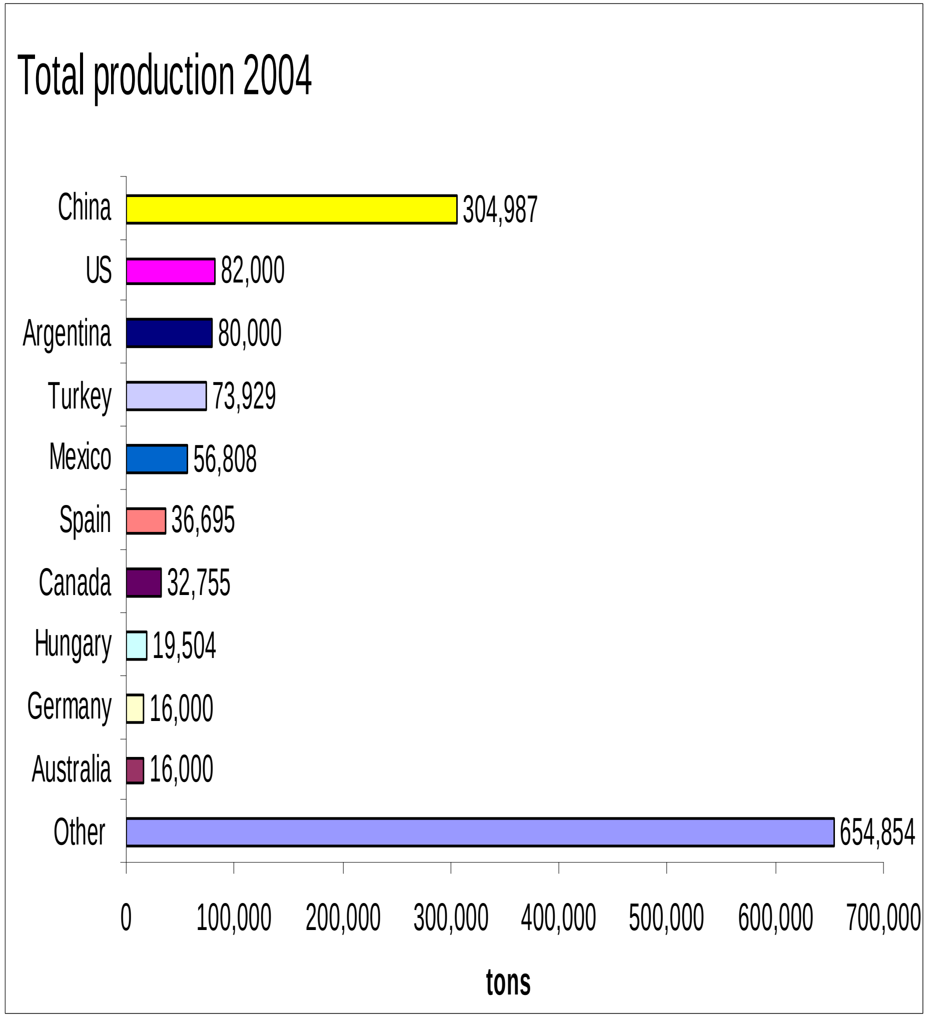
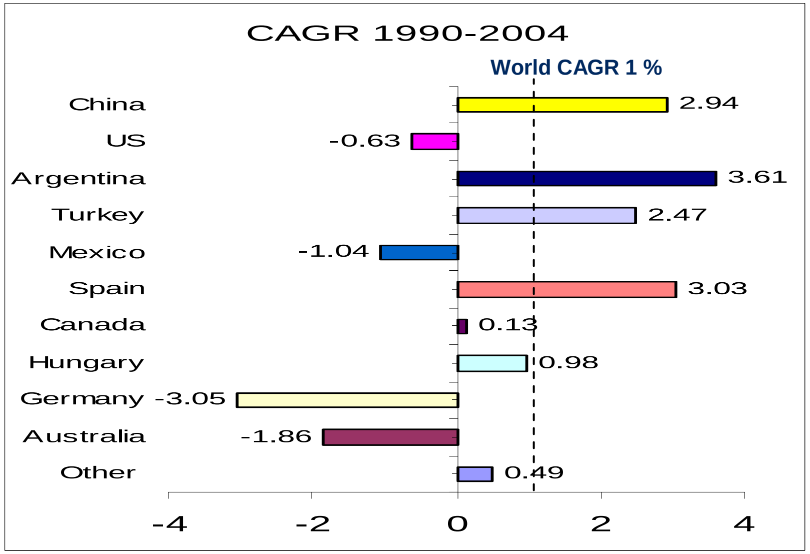
China dominates honey production in the world, accounting for 22% of production and growing nearly 3 times faster than the world average



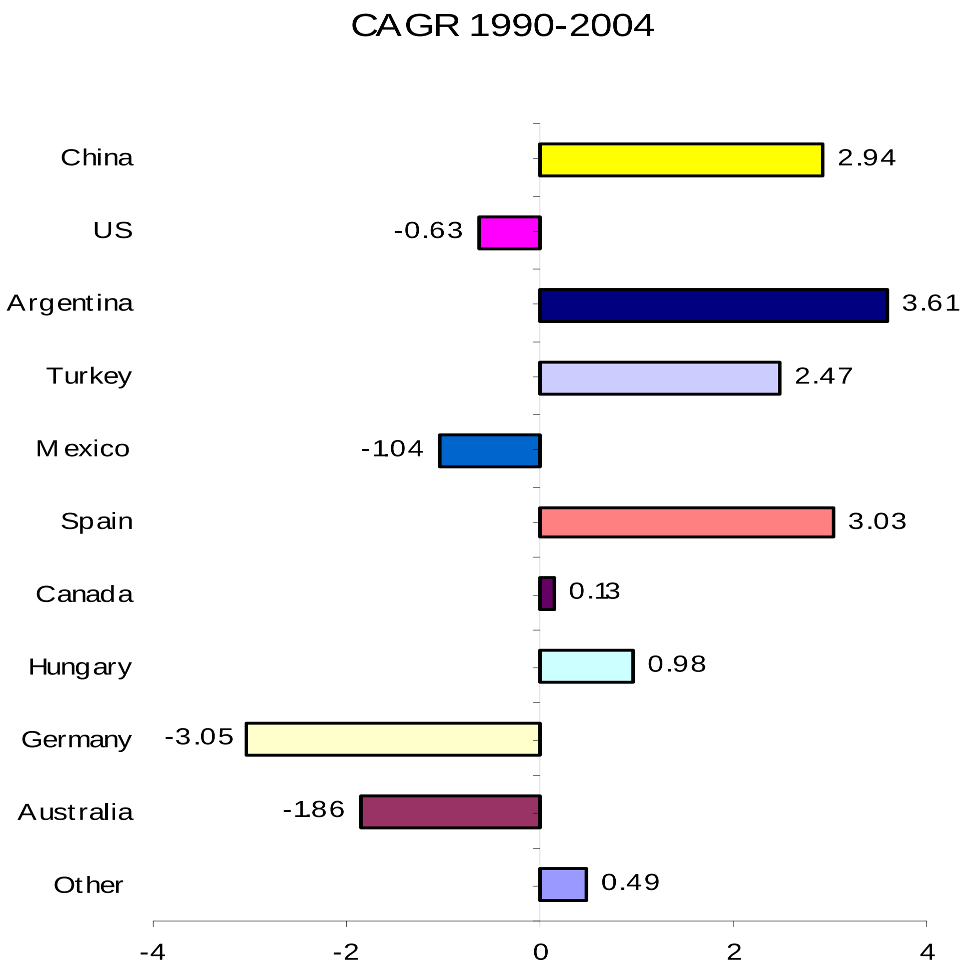


Share of production of selected countries

	1990	2004
China	16.74%	22.20%
US	7.64%	5.97%
Argentina	3.98%	5.82%
Turkey	4.35%	5.38%
Mexico	5.64%	4.14%
Spain	1.99%	2.67%
Canada	2.72%	2.38%
Hungary	1.43%	1.42%
Germany	2.16%	1.16%
Australia	1.80%	1.16%
Other	51.56%	47.68%%

Source: FAO

Colony collapse disorder and a decrease in beekeeper numbers are the main reasons for the reduction in growth in the US and Germany.



- The main reasons for the decrease in German honey production are*:
  - Many older beekeepers are retiring while the number of starting beekeepers is declining, because beekeeping in Germany as in many other EU countries, is mainly a hobby.
  - Bees' habitat is deteriorating owing to other agricultural activities.
- Colony collapse disorder (CCD) has affected 23 percent of the commercial bee colonies in the United States, causing losses of from 50 to 90 percent of the bees in each colony **

Source: FAO

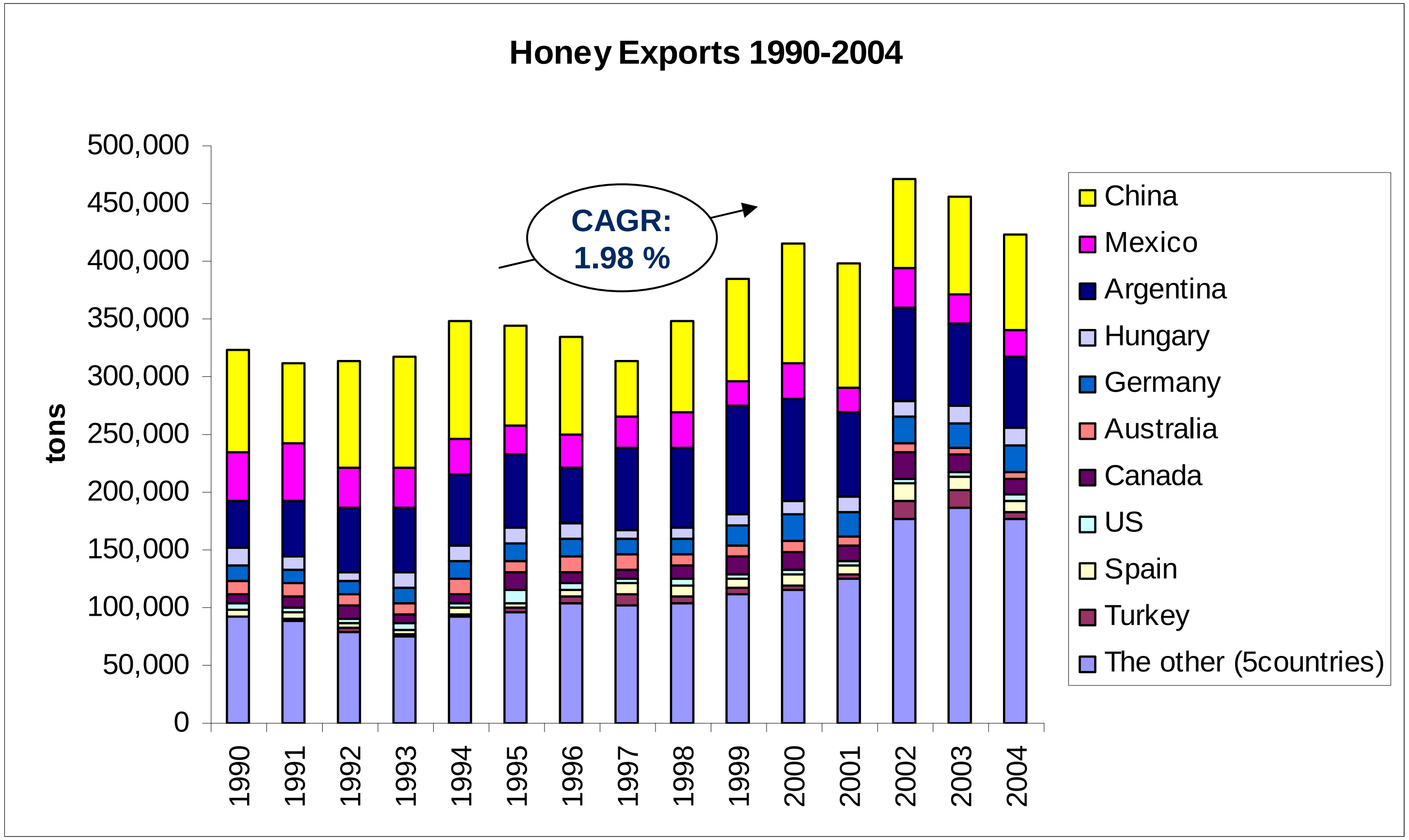
*: CBI MARKET SURVEY (2007), The honey and sugars market in Germany

**: http://www.ens-newswire.com/ens/sep2007/2007-09-07-02.asp

- Global production
- **Export**
- Supply chain
- Drivers of supply

World honey exports increased nearly 2% p.a. from 1990 to 2004.

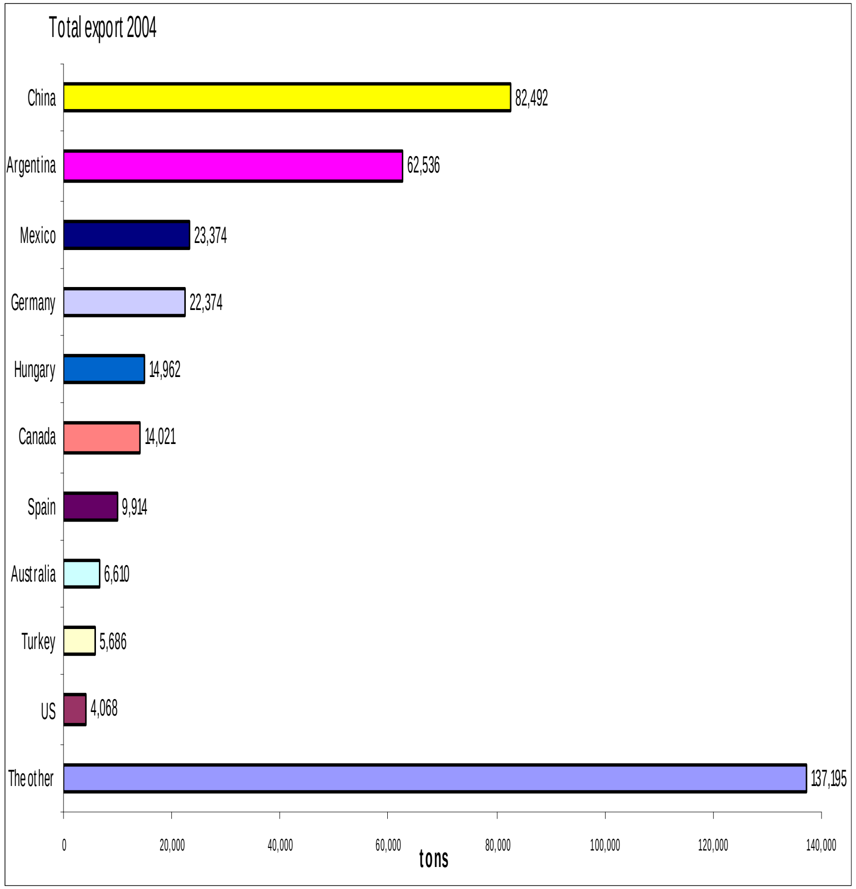
The 5 biggest exporters in the world: China, Argentina, Mexico, Germany and Brazil, accounted for more than 65% of world honey exports in 2004.

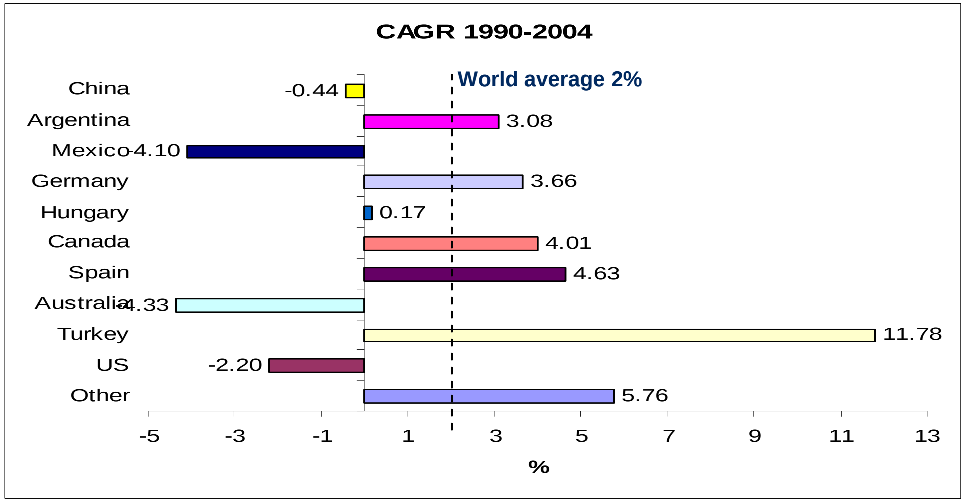


Source: FAO

China was still the biggest honey exporter, but its share in exports decreased significantly because of the bans in the United States and EU.

The main reason for the import bans from the EU and United States was that the antibiotic level exceeded permitted amounts and their domestic consumptions have been increasing.





Share of export of 10 biggest export countries

	1990	2004
China	30.30%	21.53%
Argentina	13.64%	16.32%
Mexico	15.05%	6.10%
Germany	4.48%	5.84%
Hungary	5.02%	3.90%
Canada	2.67%	3.66%
Spain	1.73%	2.59%
Australia	4.42%	1.72%
Turkey	0.37%	1.42%
US	1.95%	1.06%
Other	20.36%	35.80%

Source: FAO

- Global production
- Export
- **Supply chain**
- Drivers of supply

Value Chain for Honey (1/2)

Process	Raise bees and extract	Packing and sale	Local Market Buying
Actors	Dependent beekeepers; Contracted beekeepers; Companies	Middlemen; Contracted beekeepers; Companies	Consumers; Industrial users; Exporters
Actions	• Choose honey variety, prepare hives, frames and sheets, increase colonies, and harvest. • Extract honey from the comb, cleaning, mixing, and packing of the honey. • In general, consumers regard honey as a natural, unprocessed product. `	• Small traders usually refill, or repack honey, and label after buying honey from individual beekeepers. • Big companies have their own bee hives to harvest, they also can buy honey from individual beekeepers with big scale. • Small scale beekeepers usually sell directly to final consumers. • Big scale beekeepers sell a big part to companies and a small part to final consumers.	• In domestic markets of developing countries, beside the final consumers, big exporters are the main buyers. It is difficult for small traders to export honey to developed countries because of high requirements from importers (Loon M.V and Koekoek F.J, 2006) • Industrial users make cakes, food, medical products, cosmetics, etc.

Source: Team Analysis

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Value Chain for Honey (2/2)

Process	Importing wholesale	Processing/Retail	Final consumption
Actors	Big importers Small importers	Wholesales, special shops Super markets and retailers	Consumers Industrial users

Action

- This is the distribution chain for honey in Europe, which is the biggest honey consumers in the world.
- The import market is dominated by several large companies, which import, refine, and pack for industry purposes. Some of the honey importers (smaller importers) are also packers of retail honey.

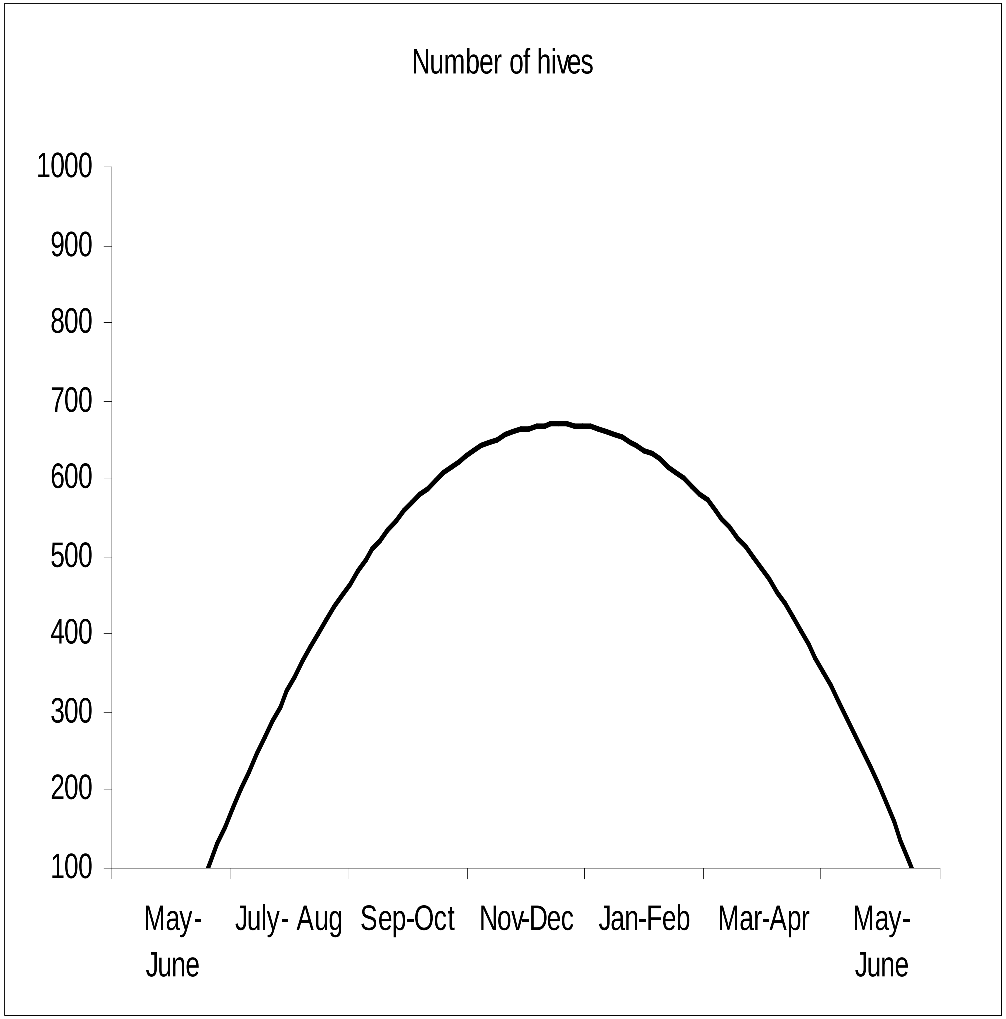
Source: Tadesse B. and Phillips D.(2007): Ensuring Small Scale Producers in Ethiopia to Achieve Sustainable and Fair Access to Honey Markets

General Honey Facts: From the Beekeepers to the Consumers

Honey Beekeeping	Extract and packing and consuming
▪**Prepare instruments:** hives, frames and sheets ▪**Bee variety:** There are many varieties of bees. This affects the productivity of honey (Ratia G., 1995). ▪**Products of bee**: honey, beeswax, propolis, royal jelly, pollen. ▪**Flowers and plants** on which the honeybee feeds may be different. These create different types of honey according to the colour, flavour, aroma. ▪The **climate, geography, and management practices** of honey production may be different, and all have an influence on the quality and quantity of honey. In winter, bees cannot have to produce honey. Humid climates decreas the quality of honey. ▪**High temperature** is directly related to the temperature during production, storage, and transport. ▪Several **diseases** may interfere with the production of honey. Varroa mite makes extinct the bee colony or be controlled with pesticides . Honeybees also are attacked by bacteria (American and European foulbrood), viruses, fungi, protozoa, and pest animals (wax moths and beetles).	▪Honey is **harvested** by extracting honey from the comb and then cleaning, mixing, and packing the honey. ▪**Packing** is best done at room temperature since this preserves the natural characteristics of the honey. The processing of honey has a substantial influence on the quality of the final product. Good hygienic standards have to be applied throughout processing, packaging, and storage to prevent contamination of the honey. Honey exposed to heat and moisture; its quality can deteriorate quickly. ▪**Consumption** is divided into 2 types: directly use honey (table honey) and use as an ingredient in cooking and industrial processes such as cosmetic, medicine, etc.

Source: Loon M.V and Koekoek F.J (2006): Export Opportunities for African Organic Honey and Beeswax

Supply chain in Viet Nam: The number of hives in Viet Nam changes during the year.



- The harvest season in the south of Viet Nam is from December to May.
- In the feeding season, bees must be fed by sugar, but not in the harvest season because of the effect on the quality of honey.
- If the number of hives is around 100 in June, it will increase to 700 hives in the middle of the harvest season; then it will reduce gradually to about 100 hives in June.
- The reason is to reduce the feeding cost in the feeding season and increase output in the harvest season.

Source: Interview and Team Analysis

Who is who in the honey market? An overview of the main players in the conventional honey supply chain.

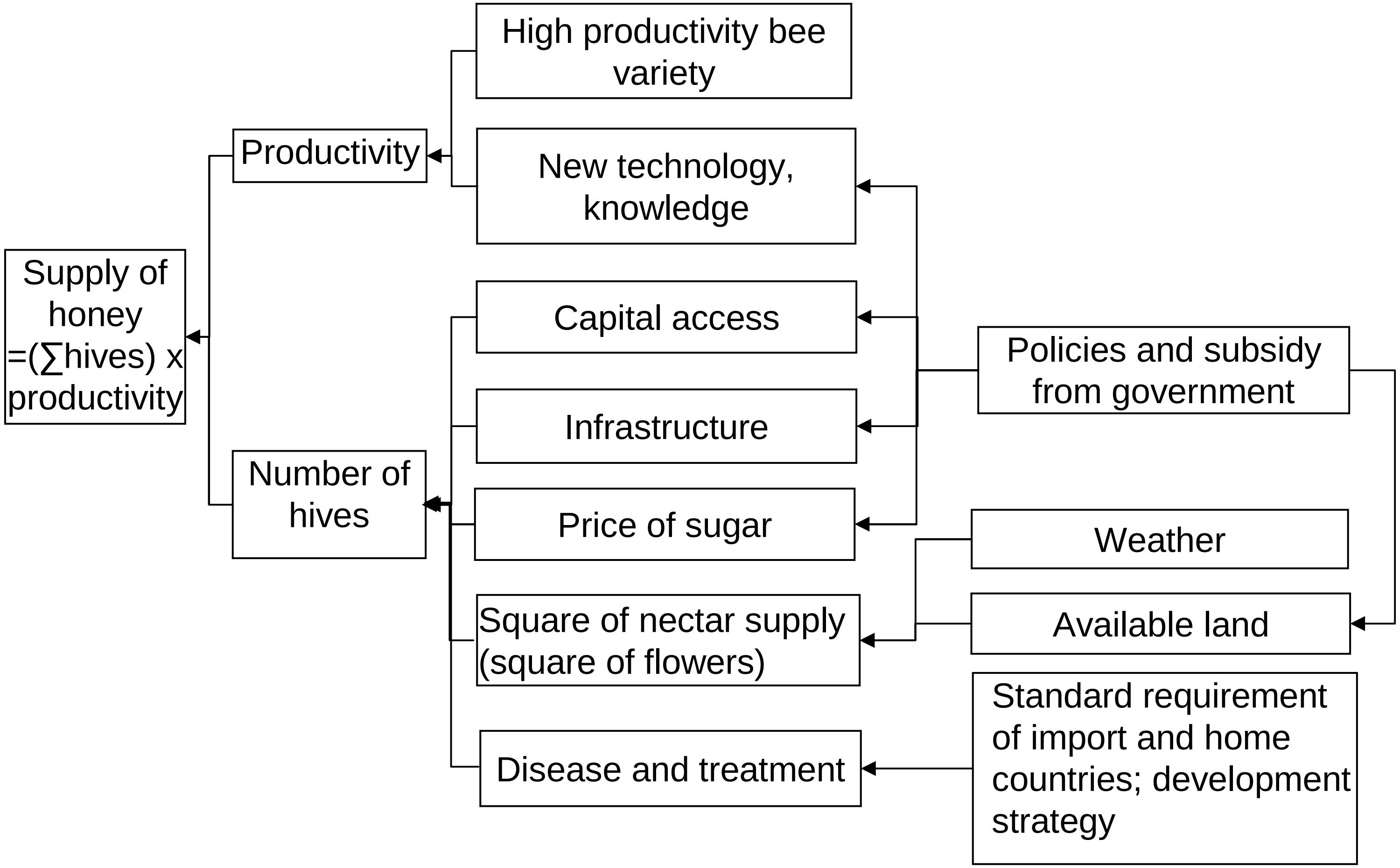
- In Europe, nearly 85 per cent of honey is used directly by consumers, and the remaining 15-20% is used in industries.

- Retailers (including beekeepers) play an important role in the distribution of honey to consumers. Super- and hypermarkets constitute the most important outlets for honey. They belong to big retail groups in the EU like Metro (Germany), Carrefour (France), Tesco (UK) and Ahold (The Netherlands). Due to their size, they command substantial buying power.

Source: Tadesse B. and Phillips D.(2007): Ensuring Small Scale Producers in Ethiopia to Achieve Sustainable and Fair Access to Honey Markets

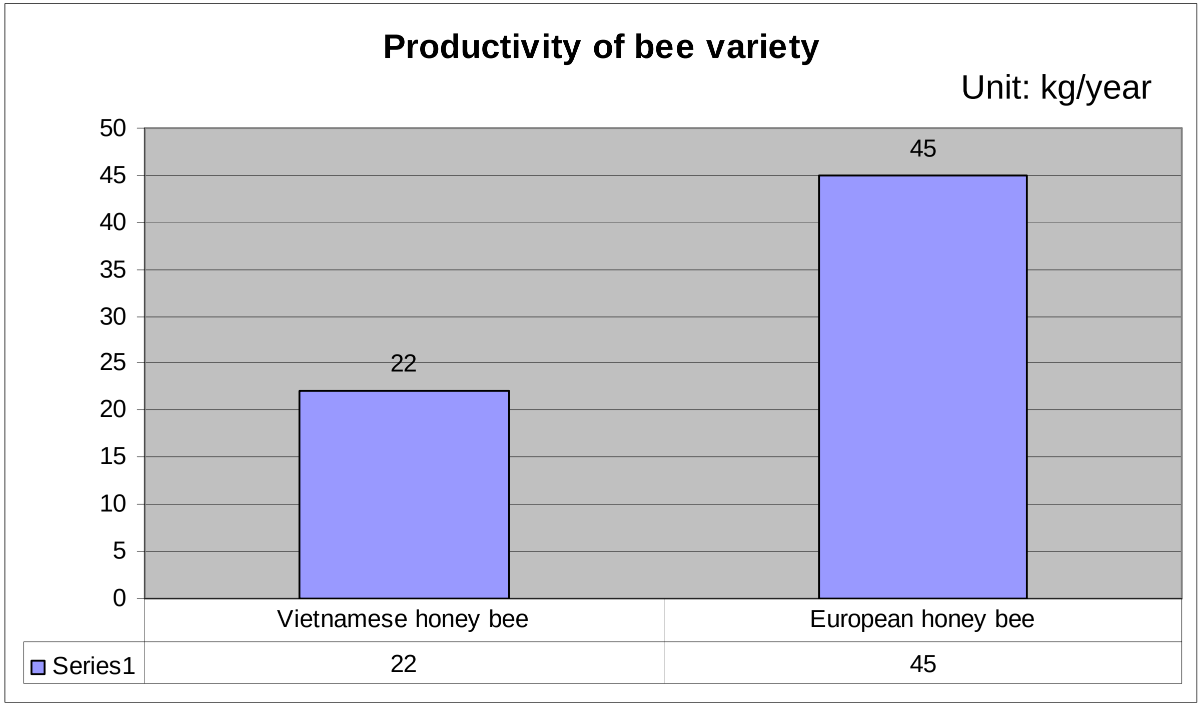
- Global production
- Export
- Supply chain
- **Drivers of supply**

Honey supply is mainly driven in the short term by the quantity of honey bee hives.



Source: Team analysis

The productivity of honey bees differs by variety.



- The European honey bee variety has high productivity, but requires huge nectar supplies so beekeepers always move to follow the flower season; or if not, they must feed bees with sugar
- The Vietnamese honey bee variety has low productivity, but it needs to move to follow the nectar seasons, because it can find and use small nectar source when main nectar supplies reduce.

Source: Team analysis and interview experts

Inputs to honey production

Capital access	• Setup costs can be very high so access to finance to invest plays an important role for beekeepers to join the honey industry.
Infrastructures	**Work in Progress**
Price of sugar	• Sugar price affects beekeeper's willingness to raise bees. If it is too high and exceeds the price of honey, beekeepers will consider exiting the industry.
Nectar source	• To ensure reaching the highest potential productivity, the number of hives per ha of flowers such as coffee must not exceed 20.

Source: Team analysis

Policies and subsidies from the Government affect inputs to honey production, including access to finance, infrastructure, plant areas and the price of sugar, and technologies useful for beekeepers.

- China and Argentina have been accused of dumping and providing subsidies for honey production *. They have been alleged especially to have been subsidising the sugar industry, thus helping to keep the Chinese honey price lower than that of other countries
- In China, some provincial-level support is available to boost the industry and income from the sale of honey, honey products and queen bees is all tax free **
- Extension programmes of developing countries support beekeepers in relation to techniques.
- Infrastructures programmes help beekeepers to exploit remote flower areas.

* http://www.americanmanufacturing.org/wordpress/wp-content/uploads/2007/04/11case-4-honey-from-argentina-and-china.pdf

** http://www.foodproductiondaily.com/news/news-NG.asp?id=53598

Bee diseases dramatically influence the number of hives as well as the quality requirements affecting the way to treat bees.

- Varroa mite established itself in 1987 and has since spread right across the entire US, destroying the feral bee population, and has had a massive impact on managed bee colonies. It is estimated that the US has lost at least half its managed hives, with as much as 70% of hives being destroyed in some areas (2005)*
- One of the requirements of organic honey is that diseases may not be treated with veterinary medicines but only with a limited number of organic substances **

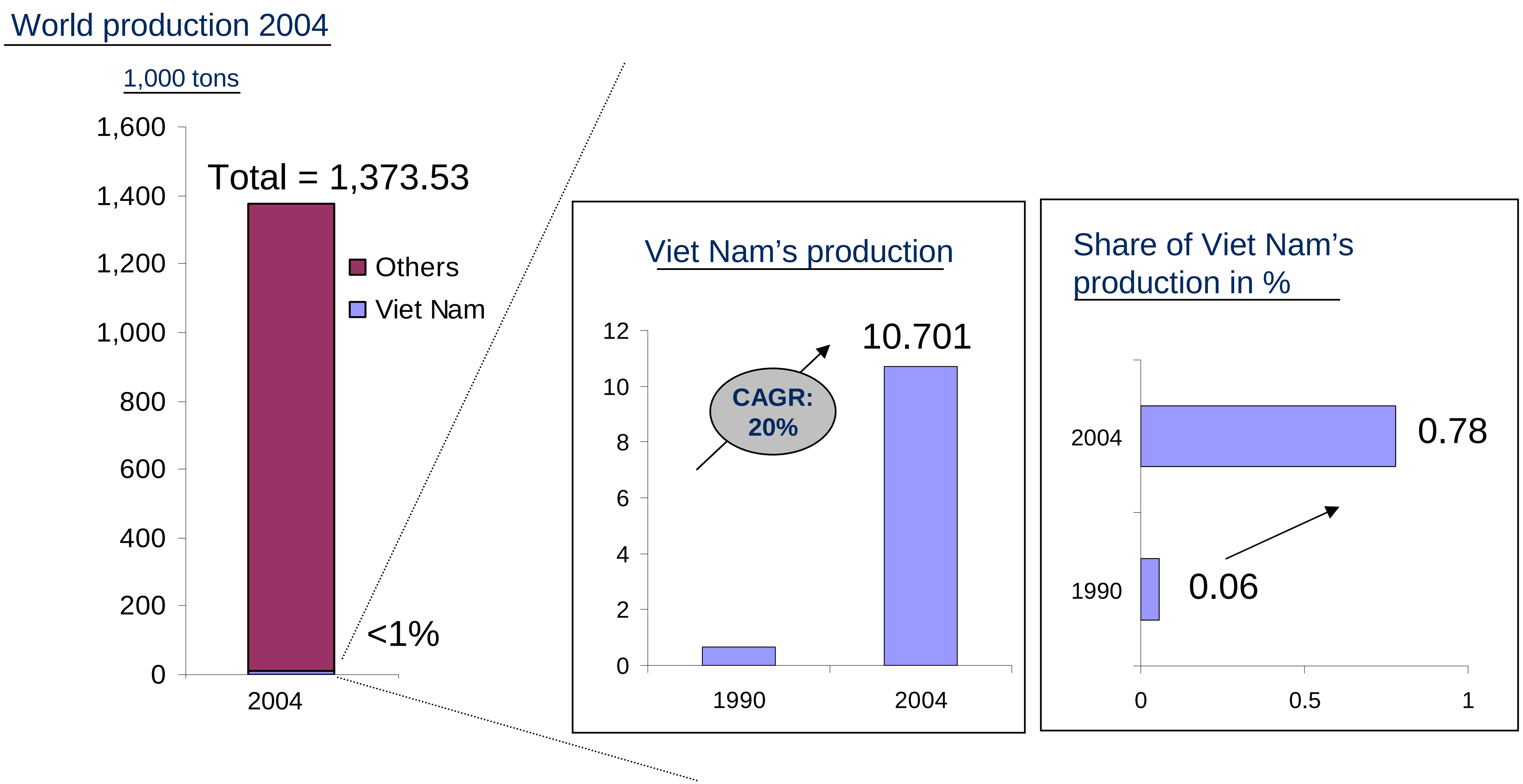
Source: *Australian Honeybee industry council (AHBIC) (2006)

** Loon M.V and Koekoek F.J (2006): Export Opportunities for African Organic Honey and Beeswax

Competitiveness – Agenda

- Honey production in Viet Nam
- Honey in comparison
  - Domestic
    - Quality
    - Price
  - International
    - Quality
    - Price
- Drivers for Vietnam competitiveness
  - Factors (land, labour, capital)
  - Level of competition between producers
  - Level of competition with value chain
  - Enabling environment

Although Vietnamese honey production has grown at a CAGR of 20% in the period 1990-2004, its share of global supply remains under 1%.



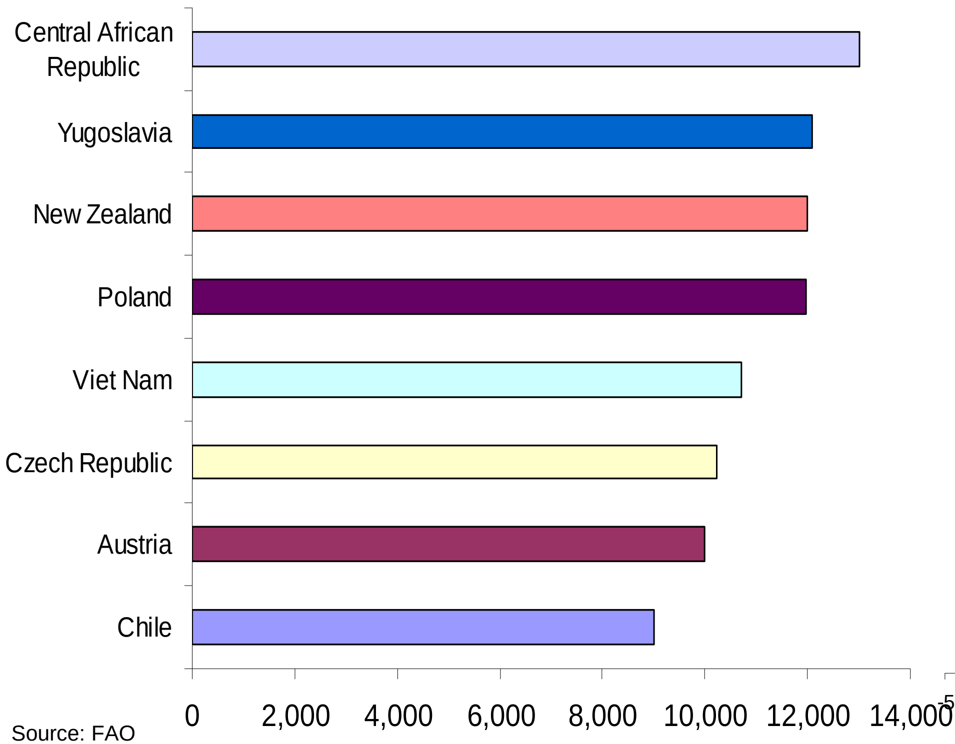
Source: FAO
Interview and Team Analysis

supported by Prosperity Initiative

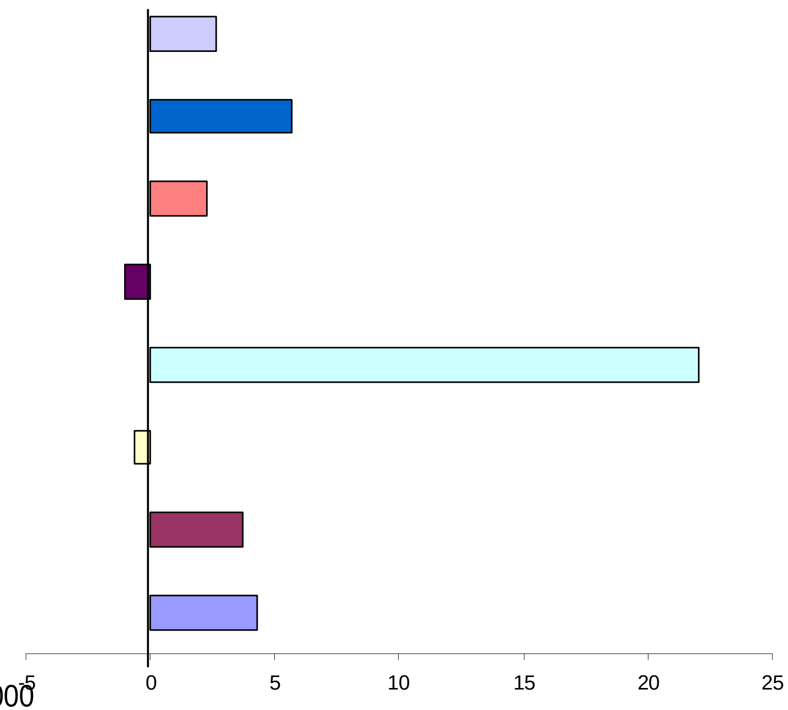
At 20% p.a. growth in the period 1990-2004, Viet Nam grew significantly faster than other producing countries of a similar size.

One of the main reasons for this growth is the changes in price. For example, production increased more than 50% in 2001-2002 because of the price paid to farmers by companies increasing from 10,000 to 16,000 VND*

Honey production countries of similar size to Viet Nam



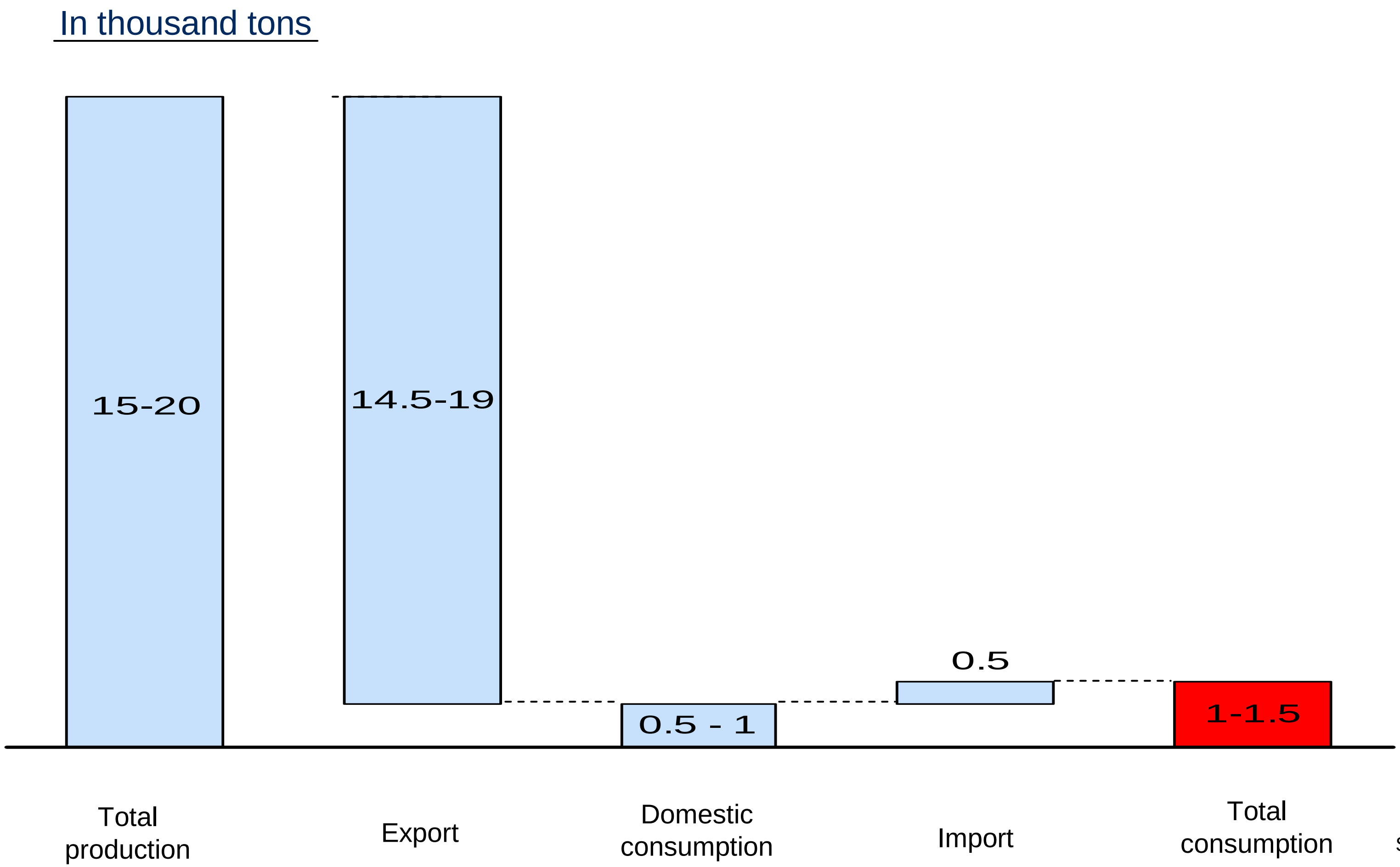
CAGR % (1990 – 2004) of selected countries



Source: FAO
The absolute value of FAO data is not reliable, but the main purpose here is to show the trend
*: Tuyet Hoa Nietdam (2004), Honey report Dak Lak

Domestic consumption of domestically produced honey is very limited.

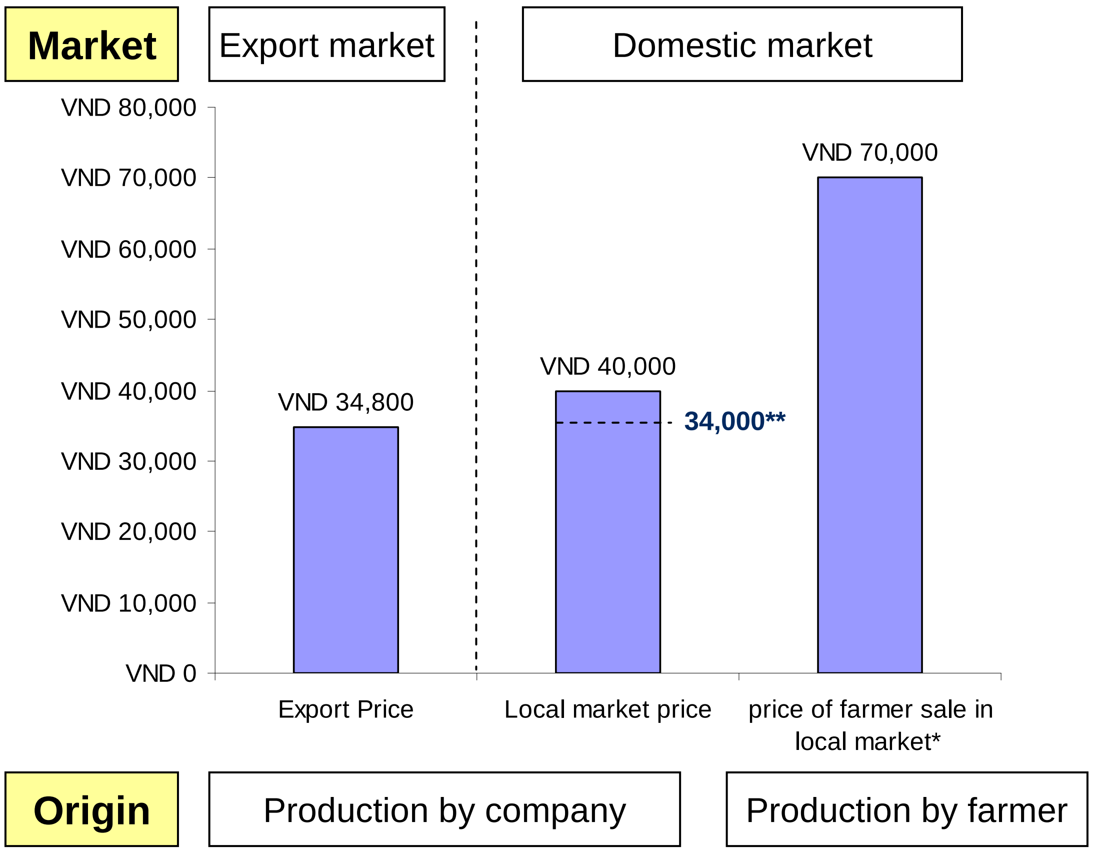
Domestic consumption accounts for 5-10% compared to the world average where domestic consumption is typically more than 70%.



Source: Interview and Team Analysis

Prices for honey vary depending on the origin of production and the difference between the domestic and the export markets.

Price for one liter in 2007



- The price in local markets is a little bit higher than in export markets, but exports provide more profit because the additional bottling and packing is around 6,000 VND per bottle for selling in the domestic market.
- The price for farmers selling directly to final consumers is much higher than the price companies can achieve, because the consumer's preference is for wild or natural honey; therefore, they think that honey from farmers is better and more real than the honey from a company.

*: price the analysis team buy directly from the farmer

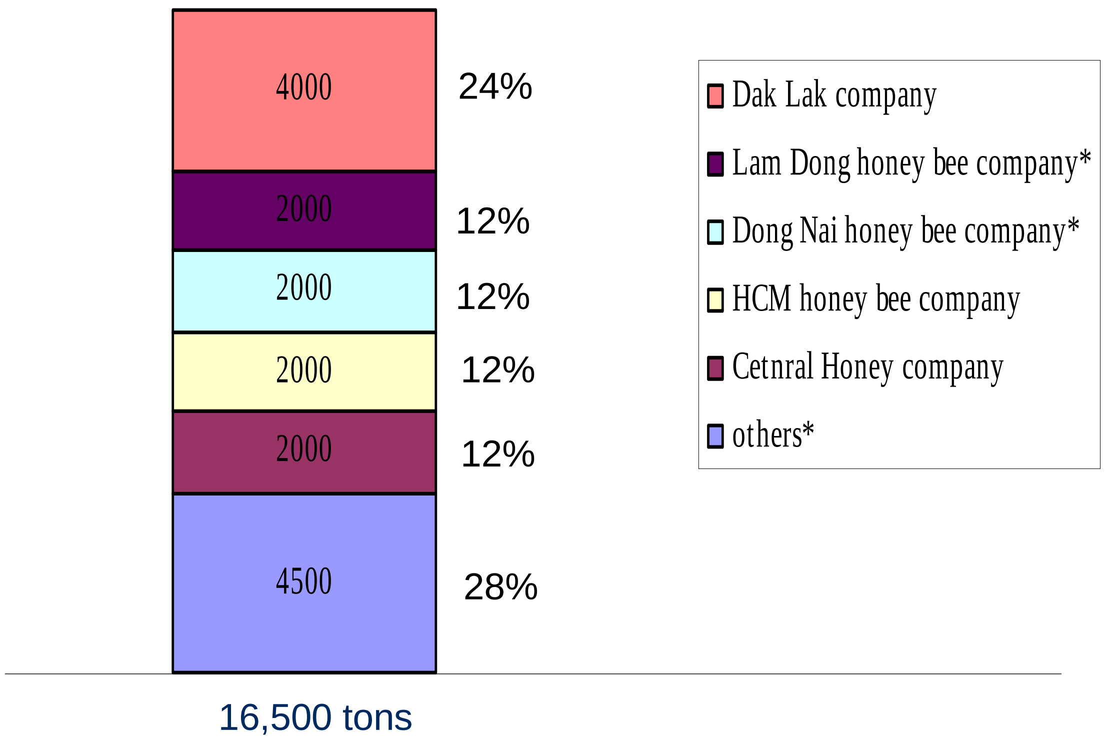
**: real price in domestic market excluding bottle packing

Source: Interview and Team Analysis

- Honey production in Viet Nam
- Honey in comparison
  - Domestic
    - Quality
    - Price
  - International
    - Quality
    - Price
- Drivers for Viet Nam competitiveness
  - Factors (land, labor, capital)
  - **Level of competition between producers**
  - **Level of competition with value chain**
  - **Enabling environment**

In general, the honey market in Viet Nam is dominated by former state-owned enterprises (SOEs) leading to a fairly concentrated market.

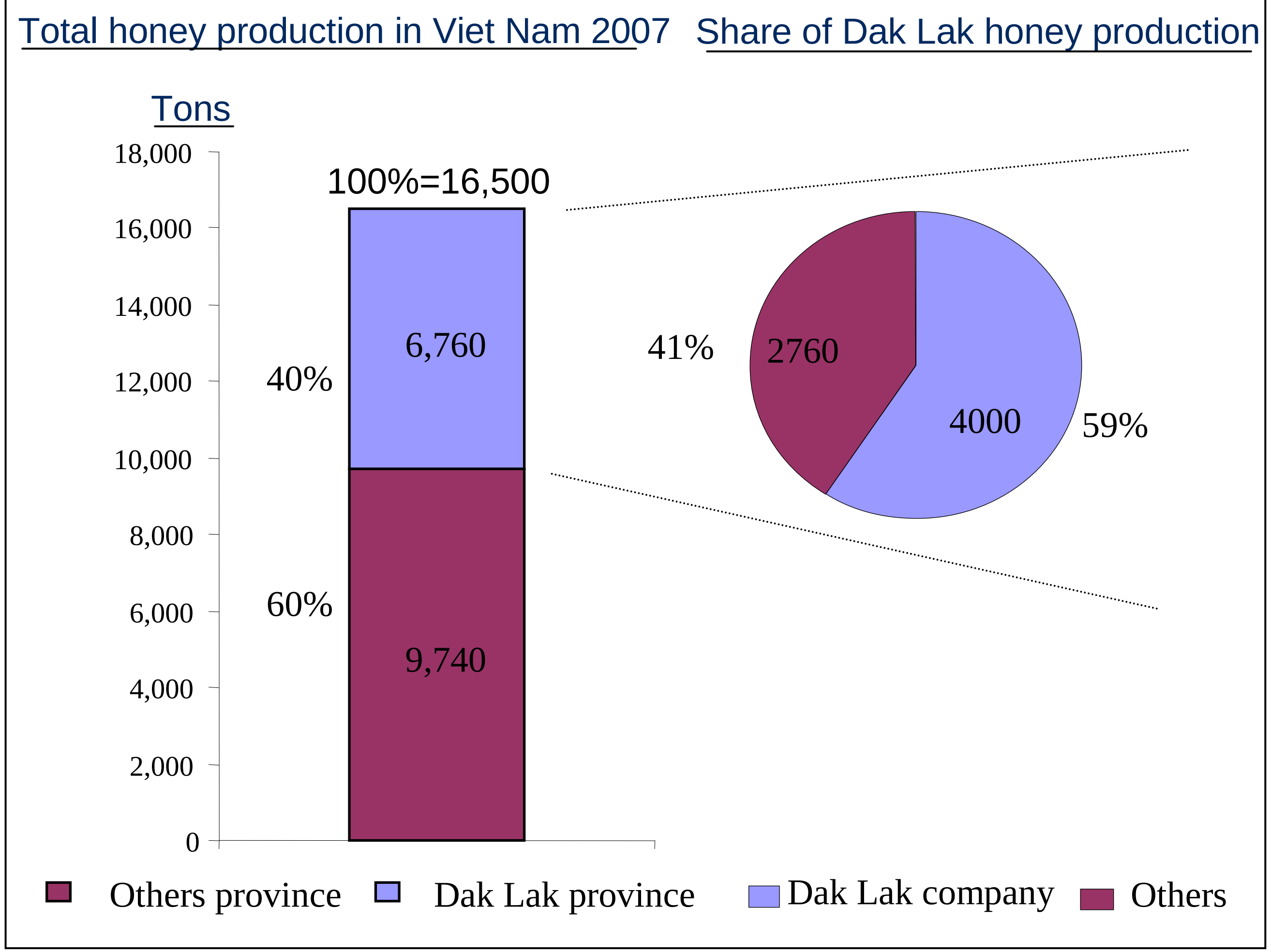
Share of producers in Viet Nam's total production 2007



Source: Interview and Team Analysis

*: team analysis estimate

The level of concentration is even higher at the provincial level.



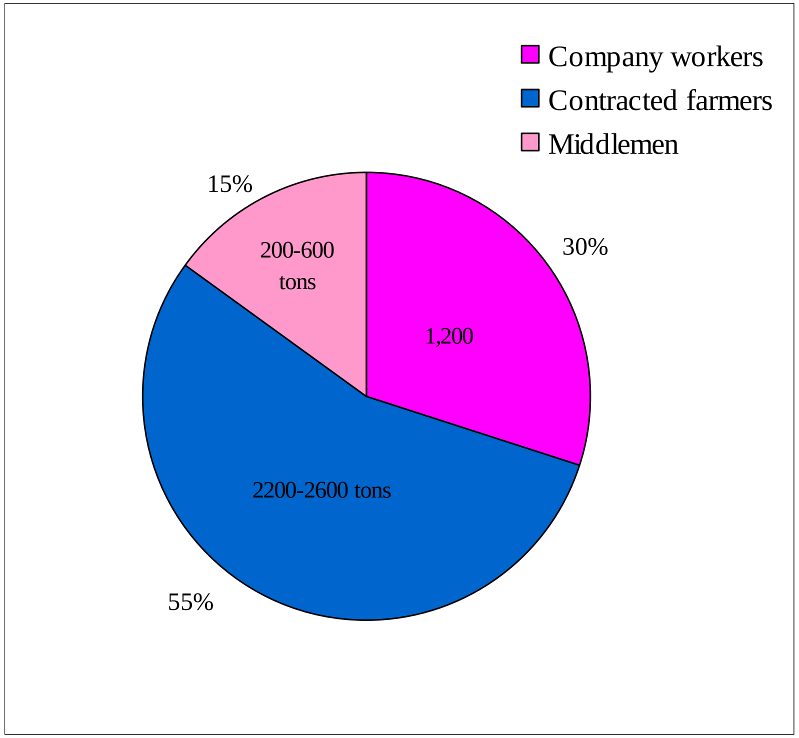
- Dak Lak company is the biggest export company in Dak Lak province as well as in Viet Nam.
- There is no other exporter in Dak Lak province.
- Other small companies' prices in the province are based on the company's price and adjust in line with it.
- 40% of Viet Nam's honey is produced in Dak Lak, out of nearly 60% produced by SOEs.

Source: Interview and Team Analysis

There is only limited competition within the value chain as most farmers are tied to one SOE for delivery of their product.

Former SOEs influence the development of participants in honey production through their decision about their providers

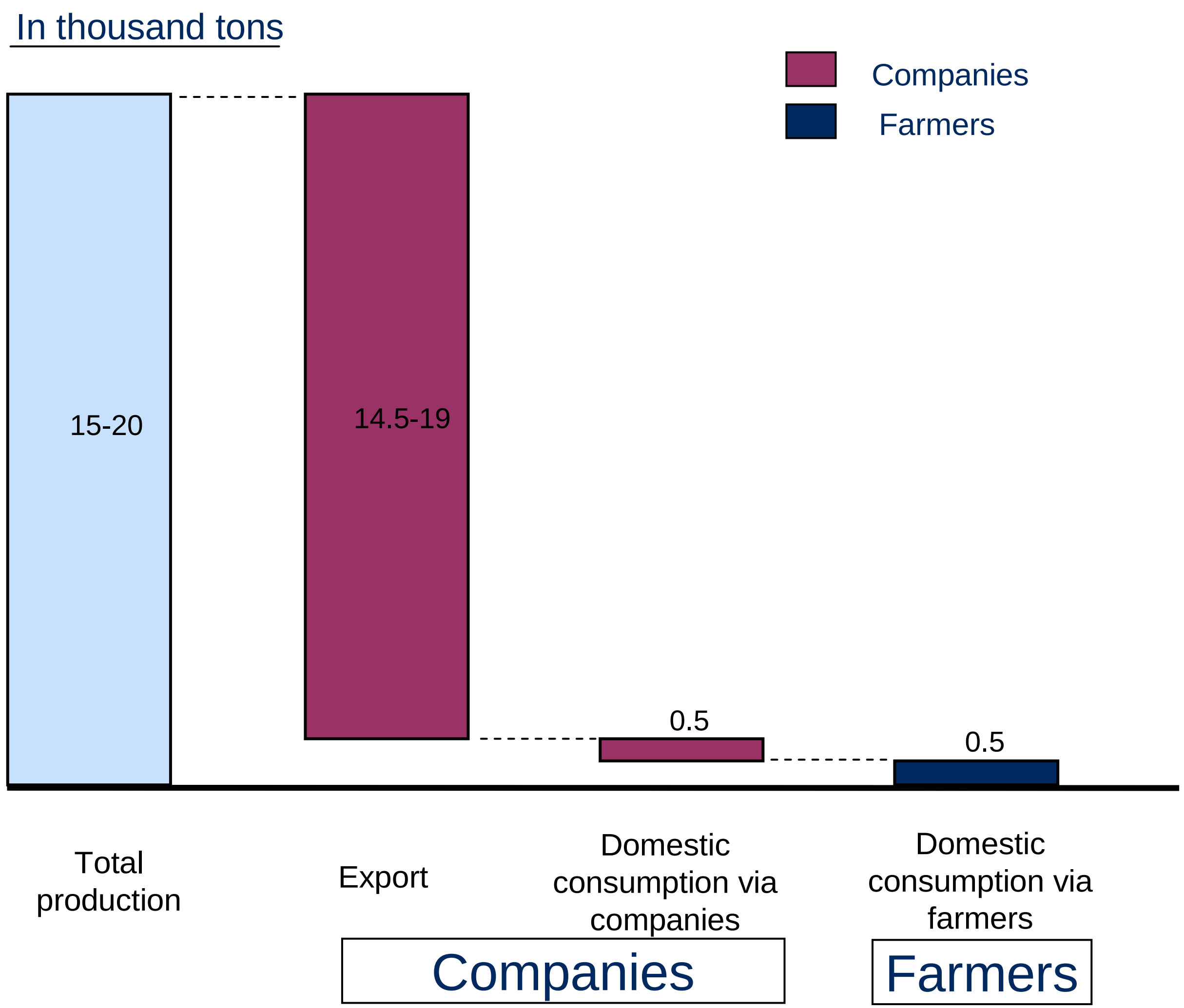
Components of Dak Lak company's suppliers 2007



10%	Independent farmers	Cannot control quality, economy of scale (small volume)
90%	Contracted farmers	Trust quality because they have been trained in techniques and quality requirements and can access to capital from contractors

Source: Interview and Team Analysis

Most of the honey produced is sold via companies to the final consumers or exporters.

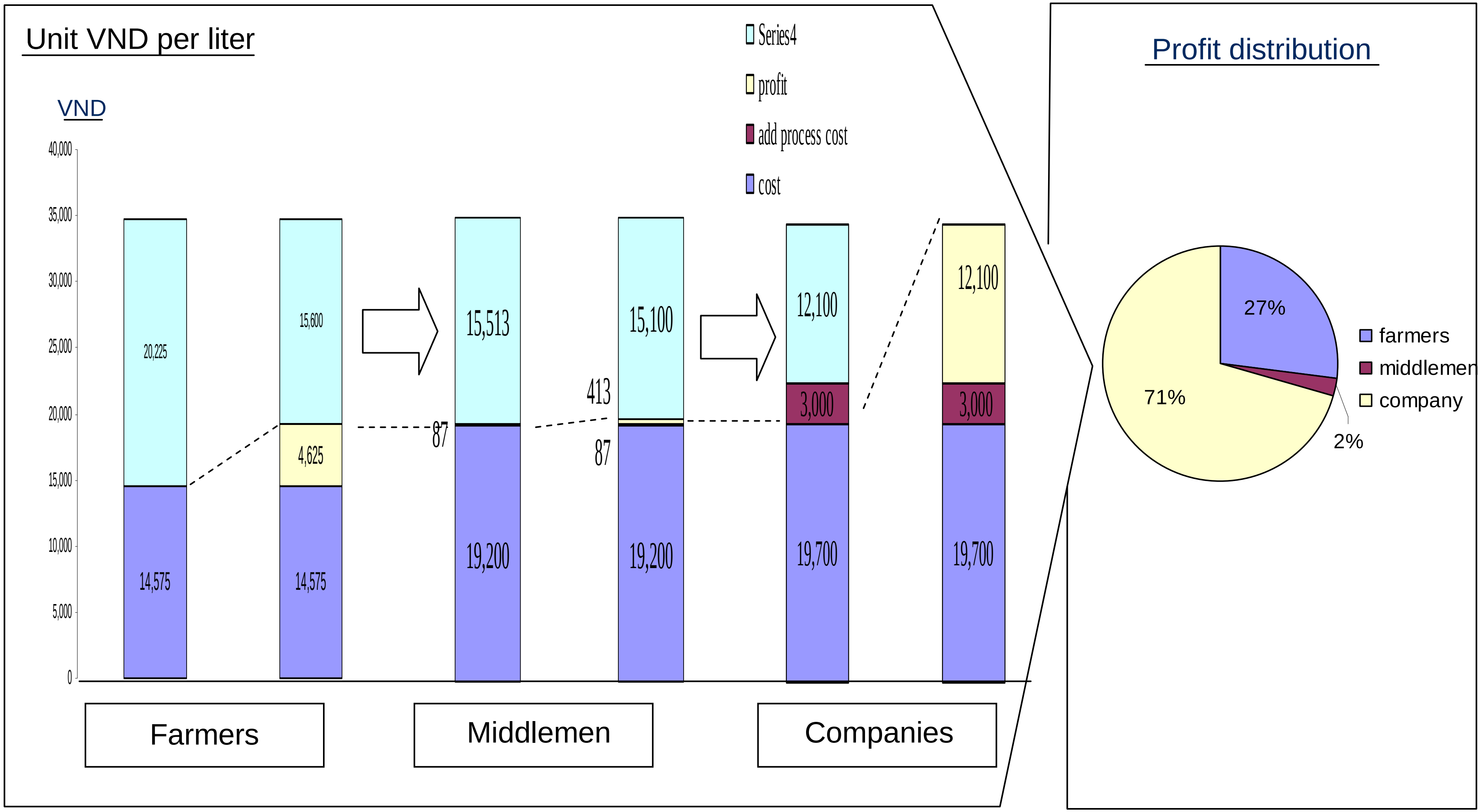


Big financial implications:

- Domestic price around 40 -70 thousand VND/liter
- Price for sale to companies only 19,000 VND/liter

Source: Interview and Team Analysis

Profits are concentrated at company level



Source: Interview and Team Analysis

supported by Prosperity Initiative

Access to finance and quality control are the biggest problems for beekeepers and companies.

Access to finance

- Exports require companies to have huge capital ➔ Small companies have difficulty in accessing finance to export honey.
- Bee keepers have difficulty borrowing from banks or becoming contracted farmers.

Access to training lessons

- Farmers need a long time to train (at least 1 year) while opportunity cost is high in the South.
- Small companies have limit management ability.

Market information/ trust

- Independent farmers have difficulty selling honey to companies, except for contracted farmers.
- Companies have difficulties controlling quality.

Source: Interview and Team Analysis

Impact - Agenda

- Summary
- Barriers to entry
  - Economies of scale
  - Access to capital
  - Opportunity costs

There are differences between pro-poor considerations affecting southern and northern areas of Viet Nam.

- In the Southern area of Viet Nam, where exporting dominates marketing and production activities, the potential for honey to have scalable pro-poor impact is limited by the high barriers to entry, which result from the high set-up cost and high opportunity costs.

- In the Northern area of Viet Nam, honey is mainly consumed by local consumers*, which impacts the product's pro-poor potential.

Source: Team analysis
*: Gilles Ratia (1995), Amazing docile bee (Dong Nai province)

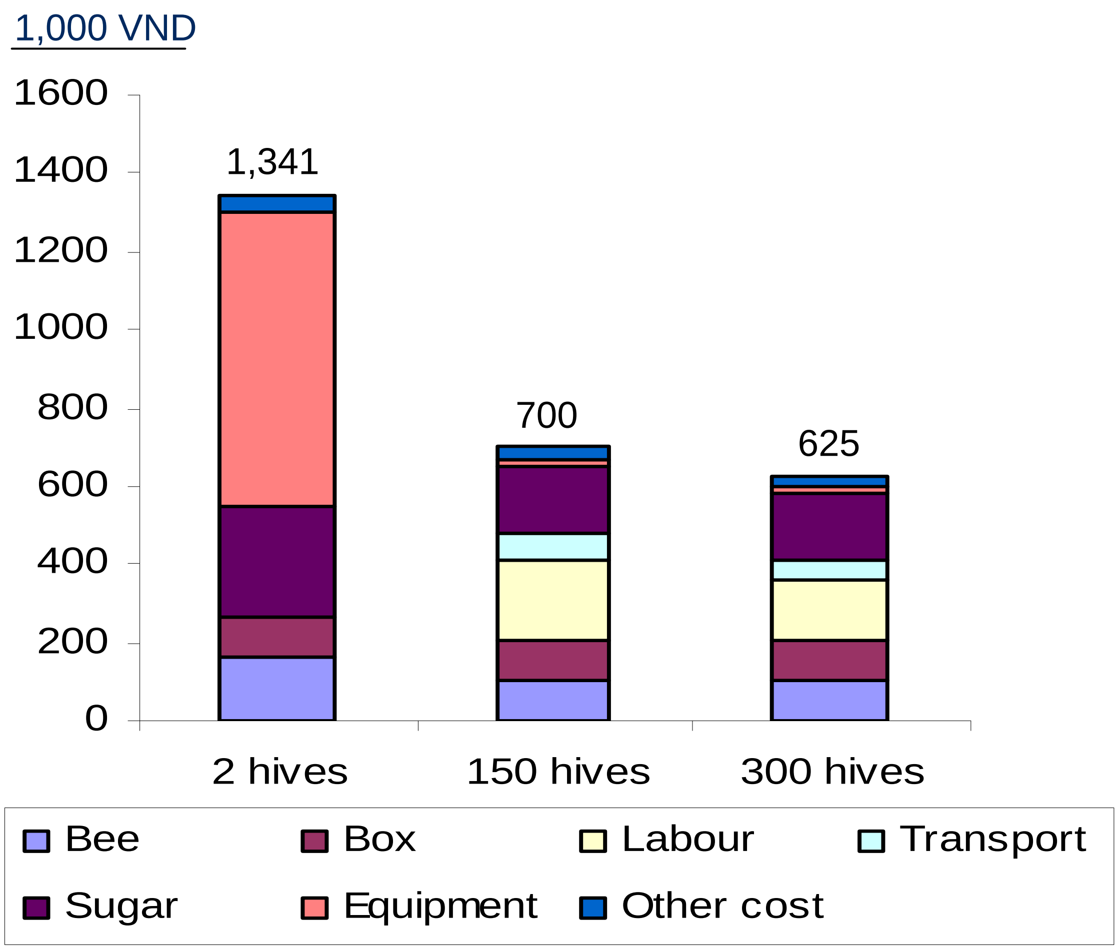
There are several limitations on the pro-poor opportunity in the south of Viet Nam.

Access to capital	• Access to capital for poor farmers is constrained: – Bank: no property to mortgage in order to get loans – Company: needs to have 3 years' experience in honey production, at least 150 hives and 2 labourers
Economies of scale	• Optimal size is 300 hives
Set up costs	• High set-up costs to achieve economic efficiency, e.g. 300 hives require a total of around187 million VND
Human capital	• Significant qualifications required to be a beekeeper; for example, beekeepers need at least 1 year's apprenticeship at a low salary. • Bees need to attention every day during the feeding season otherwise they die, thus requiring significant concentration by beekeepers.

Source: Interview and Team Analysis

The potentially large economies of scale make it difficult for small-scale poor farmers to compete.

Set-up costs (1st year) per hive



- Set-up cost per hive differs according to production scale: 1,341 thousand VND per hive for 2-hive farmers and VND 700,000 and 625,000 for 150-hive and 300-hive farmers respectively.
- Total cost for 1st year is very high for big scale: 105 millions and 187.5 millions for 150 hives and 300 hives respectively.

Source: Interview and Team Analysis

Concluding Comments

- As the first of the studies carried out by CAP supported by Prosperity Initiative under its National Market Leadership Programme, no conclusions or additional opportunities have been identified relating to honey.
- The potential for honey to have a significant impact on poverty in Viet Nam needs more detailed investigation than has been possible during the compilation of this report.
- CAP and Prosperity Initiative may consider honey further in the future as part of their continuing joint activities.