



MINISTRY OF AGRICULTURAL AND RURAL DEVELOPMENT (MARD)

APICULTURE RESEARCH AND DEVELOPMENT STRATEGY TO 2020

Chinh X. Tong
Department of Livestock production
Email: chinhtx.cn@mard.gov.vn

Hanoi, October 31, 2010

CONTENTS

- A. CURRENT SITUATION OF APICULTURE RESEARCH AND DEVELOPMENT IN VIETNAM**
 - 1. APICULTURE STATISTICS**
 - 2. INDUSTRY ANALYSIS**
- B. PRIORITY EVALUATION FOR RESEARCH AND DEVELOPMENT**
 - 1. APICULTURE RESEARCH & DEVELOPMENT IDENTIFICATION**
 - 2. ATTRACTIVENESS TO VIETNAMESE APICULTURE**
 - 3. R&D FEASIBILITY IN VIETNAM**

APICULTURE STATISTICS

Ecological regions	Year									AGR (%/year)
	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Whole country	277,251	386,335	592,222	672,352	689,508	678,987	864,222	584,771	608,266	10.3
<i>The North</i>	<i>175,075</i>	<i>217,596</i>	<i>259,581</i>	<i>309,03</i>	<i>317,586</i>	<i>311,207</i>	<i>467,191</i>	<i>267,141</i>	<i>287,051</i>	<i>6.4</i>
Red River Delta	44,030	49,208	56,962	67,896	74,854	84,047	218,504	66,452	76,529	7.2
Northeast	75,675	104,283	124,111	135,95	131,401	134,013	135,213	142,835	133,767	7.4
Northwest	24,720	34,517	33,826	38,491	41,944	20,584	40,434	47,947	56,728	10.9
Central North	30,650	29,588	44,682	66,693	69,387	72,563	73,040	9,907	20,027	-5.2
<i>The South</i>	<i>102,176</i>	<i>168,739</i>	<i>332,641</i>	<i>363,322</i>	<i>371,922</i>	<i>367,78</i>	<i>397,031</i>	<i>317,630</i>	<i>321,215</i>	<i>15.4</i>
Central South Coast	5,079	5,339	5,547	6,322	6,395	6,225	6,317	6,045	1,023	-18.2
Central Highlands	53,213	105,342	244,412	268,631	273,272	272,194	275,675	211,780	224,549	19.7
Southeast	39,581	46,900	57,819	65,817	70,393	70,756	89,566	70,482	68,044	7.0
Mekong River Delta	4,303	11,158	24,863	22,552	21,862	18,575	25,473	29,323	27,599	26.2

(Source: Vietnam Statistics Department; Unit: colony; AGR = average growth rate)

APICULTURE STATISTICS

Table2. Honey production by ecological regions in the period of 2001-2009

Ecological regions	Year									AGR (%/year)
	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Whole country	7,321	11,401	12,758	10,701	13,591	16,474	15,659	9,960	11,549	5.9
<i>The North</i>	<i>1,310</i>	<i>2,031</i>	<i>2,337</i>	<i>2,927</i>	<i>2,765</i>	<i>2,463</i>	<i>3,515</i>	<i>2,540</i>	<i>2,538</i>	<i>8.6</i>
Red River Delta	445	851	947	1,067	1,057	828	1,428	744	795	7.5
Northeast	371	476	648	801	772	740	800	1,023	967	12.7
Northwest	390	546	526	758	594	521	756	536	543	4.2
Central North	104	157	217	302	341	374	531	237	233	10.5
<i>The South</i>	<i>6,011</i>	<i>9,371</i>	<i>10,421</i>	<i>7,774</i>	<i>10,826</i>	<i>14,285</i>	<i>12,144</i>	<i>7,420</i>	<i>9,011</i>	<i>5.2</i>
Central South Coast	21	25	27	30	30	25	29	16	16	-3.4
Central Highlands	2,710	5,387	6,393	4,385	7,839	10,876	9,603	4,251	6,590	11.7
Southeast	3,229	3,812	3,713	3,069	2,799	3,236	2,367	2,964	2,119	-5.1
Mekong River Delta	51	147	288	290	158	149	145	189	286	24.1

(Source: Vietnam Statistics Department; Unit: metric ton; AGR = average growth rate)

APICULTURE STATISTICS

Table 3. Exported honey volumes by calendar year in the period of 2001-2009

Item	Unit	Year									AGR (%/year)
		2001	2002	2003	2004	2005	2006	2007	2008	2009	
Exports	ton	4,000	14,000	13,200	12,000	11,500	14,700	14,000	19,378	17,430	20.20
Export turnover	M USD	5	20	25	13	10	20	25	31	27	24.43
Honey exports	%	55	77	104	112	85	88	89	106	94	7.01
Price of exported honey	USD /kg	1.180	1.430	1.890	1.110	0.900	1.360	1.790	1.625	1.550	3.47

(Source: Vietnam Beekeepers' Association); AGR = average growth rate)

APICULTURE STATISTICS

Table 4. US honey imports from Vietnam by calendar year

Calendar Year	Total honey volumes imported (metric ton)	Total honey volumes imported from Vietnam (metric ton)	Percentage of Vietnam's honey (%)
1994	55,896	20	0.04
1995	40,186	79	0.20
1996	68,307	717	1.05
1997	75,949	908	1.20
1998	60,039	2,940	4.90
1999	82,789	1,525	1.84
2000	90,056	1,902	2.11
2001	65,700	5,751	8.75
2002	91,907	14,356	15.62
2003	90,906	7,979	8.78
2004	80,994	9,792	12.09
2005	105,677	13,582	12.85
2006	125,939	13,263	10.53
2007	105,676	15,707	14.86
2008	104,984	19,378	18.46
2009	95,453	17,430	18.26

(Source: United States Department of Agriculture)

APICULTURE STATISTICS

Vietnam's honey to USA in 1994-2009:

- **Honey volumes: 57%/year,**
- **Vietnam's honey imports/total US honey imports : 51%/year**
- **The biggest honey exporters to USA are Vietnam, China, Brazil, Argentina and India.**
- **2008: Vietnam was the biggest honey exporter to USA, exporting 19,378 tons, making up 18.48% US honey imports (USDA).**
- **2009: Vietnam backed to the second one, behind Brazil (Brazil exported 17,709 tons and Vietnam did 17,430 tons to US).**

INDUSTRY ANALYSIS

Current Policies:

- **GoV: Apiculture Development Strategy by 2020 under Livestock Development Strategy by 2020 at Decision No. 10/2008/QĐ-TTg dated Jan. 16, 2008.**
- **MARD: Good Animal Husbandry Practices for Bee keeping in Vietnam (VietGAHP) at Decision No. 1580/QĐ-BNN-KHCN, May 26, 2008**
- **Drafted policies and regulations that support the industry in aspects: comprehensive planning, investment, credits, the animal health inspection and quarantine of bee products and exported honeybee strains, beekeeping extension and science and technology.**

INDUSTRY ANALYSIS

Future Trends and Key Market Issues (2010- 2020):

- Domestic production potential of Vietnam is 35,000-40,000 tons of honey, 30-40 tons of royal jelly and 700 tons of wax per year.
- Market demands for honey and other bee products as a natural nutritional food is increasing in developing countries.
- Increased consumption of natural sweeteners and other bee products with biologically active elements will increase as awareness of benefits and income increases.
- Use of honey ingredients in food processing will rapidly increase.
- The production and consumption of organic honey and other bee products and diversified value added products such as honeybee breeds, special honey and nutritional foods will increase.

INDUSTRY ANALYSIS

Strengths	Weakness
<ul style="list-style-type: none"> • Suitable option for landless farmers • Initial capital cost to establish semi-commercial production is not high • Bee food plants in natural plantation and crops are diverse, surplus and long nectar secretion. • Long-standing traditional beekeeping. • Honey bees are diverse in species, subspecies, ecotypes that are good materials for bee selection and breeding. • Import-export tax decreases after WTO's assess • Considerable infrastructure for production and processing of bee products. • Well established export markets for honey and an increasing range of bee products. • Domestic market likely to increase significantly as per capita consumption is comparatively low • Having more than 20-year experience of honey export. • Large potential for production of bee products. • Climatic conditions are favorable. • Beekeepers, processors and exporters are experienced. • Beekeepers quickly acquire new technologies, new breeds for higher yielding breeds. • Significantly improved farmer income and profitability • Many research achievements successfully transferred to production. • Significant investment in industry infrastructure for processing and export markets. • Industrial development creates many employment opportunities • Low labor costs also increase competitiveness • Reduce tax after AFTA and WTO's assess (Tax of natural honey at the time of WTO's assess is 10%). 	<ul style="list-style-type: none"> • Lack of long-term projection for the development of the industry • Little value adding or diversification of bee products. • Lack of professional vets for beekeeping. • Lack of qualified staff and equipment for control of quality and residue elements. • Weak network for production services as breeding, beekeeping materials and equipment. • Weak marketing in new markets and trade promotion. • High price of material sugar for bees, which results in high production costs and reduces competitiveness. • Farmers do not fully understand bees' role in cross pollination for crops and plants. • Processing technology and equipment needs upgrading. • Honey is not considered as food; average capita consumption is low. • Apart from few exporters, insufficient attention to good apicultural practices, food safety and certification and development of quality standards. • Low quality of export products reducing export prices. • Relatively low quality semi-processing by producer households. • No trade/brand names of apicultural products in the international markets. • Weak linkage among managers, companies and producers and between institutions of MARD. • Weak systems of technology transferring to farmers.

INDUSTRY ANALYSIS

Opportunities	Threats
<ul style="list-style-type: none">• Improved quality, GAP and food safety to capitalize on market expansion after joining AFTA and WTO.• Diversification and value adding of products, including organic honey based on the expansion of the domestic and export market demand for commercial bee products.• Joint ventures to improve processing facilities, quality control and residues.• Continued breed improvement and improved hive management to increase productivity• Development of packaging, trademarks etc• Strategies for prevention of incidence of exotic diseases that will have major impact on the honey and bee product industry• Development of crop pollination services to improve yields of high value crops	<ul style="list-style-type: none">• WTO's assess is likely increase costs of compliance to international market standards.• Competition with other cheaper and better agricultural products in export and domestic consumption.• Introduction of disease and failure to control existing diseases• Strong competition from other producing countries.• Fluctuation of price due to change of the world supply and demand.• Technical trade barriers: strict requirements of quality and food sanity and safety.• Honey adulteration and low quality honey.• Chemical and antibiotic residues in the production processes.• Trade fraud in honey export in which honey is smuggled from the third country and is exported as Vietnam honey.• Illegal import of breeding queen bees without quarantine results in high risks of new diseases as noseosis, Colony Collapse Disorder, etc.

APICULTURE R& D IDENTIFICATION

Development Objective:

Increase productivity, production, economic efficiency and improve product quality, food safety and competitiveness in export markets.



APICULTURE R& D IDENTIFICATION

Targets:

- 900,000 honeybee hives (both *Apis mellifera* and *Apis cerana*) with production of 24,600 tons of honey, of which 85% is exported by 2010.
- 1.1 million colonies produce 33,000 tons of honey by 2015.
- By 2020, there will be 1,23 million bee hives in Vietnam, producing 39,000 tons of honey, exporting 35,000 tons.

APICULTURE R& D IDENTIFICATION

Research and Development Scope:

- Genetic improvement of honey bee strains for their higher yield, better quality, superior disease resistance, and greater adaptation in various ecologies of bee food plants;
- Technologies for improved bee health, storage and processing;
- Development on bee keeping extension, high value added production, bee food plants, development of market promotion and honeybee crop pollination services

APICULTURE R& D IDENTIFICATION

Coverage:

- ***Productive honeybee group:*** Consisting of the native species (*Apis cerana*) and the exotic species (*Apis mellifera*).
- ***Feral honeybee group:*** are all native species that compose of the giant bee (*Apis dorsata*), the rocky bee (*Apis laboriosa*), the dwarf bee (*Apis florea*) and the red little bee (*Apis andreniformis*) and some stingless bee species (Genus *Trigona*).

ATTRACTIVENESS TO VIETNAM

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ATTRACTIVENESS TO VIETNAM

Potential Impacts:

- **Impact on job creation and income increase, poverty reduction, gap mitigation between urban and rural areas and environmental protection.**
- **Substantial opportunities for increased exports and an increased domestic market will add to foreign exchange and GDP.**

ATTRACTIVENESS TO VIETNAM

Potential Impacts (continued) :

- **Development of industry partly contributes to increase in yield and quality of crops, especially for seed-producing crops.**
- **Production and business development of bee products orientates targeted stakeholders.**
- **Bring sustainable development of economics, society and security in rural areas.**

ATTRACTIVENESS TO VIETNAM

Ability to Capture Benefits:

- **Development of semi-commercial and commercial producers will improve adoption of new and improved technologies and management practices.**
- **A large number of small household and hobby producers will make adoption of technology less easy and may lead to difficulties in control and management of important diseases**
- **After WTO's assess, strict requirements of quality and food safety of bee products from importers will ensure the successful transfer of new techniques and technologies to producers.**

ATTRACTIVENESS TO VIETNAM

Ability to Capture Benefits (continued) :

- Increased income of beekeepers can encourage their investment into high quality products through the adaptation of technical and technological advance.
- The requirements of WTO and AFTA, particularly in food safety and sanitary requirements will add costs for producers, which may cause reluctance to adopt.
- Beekeepers will prefer high added value bee products and may not increase quantity of colonies of which benefits are low or products have no competitive advantage.

FEASIBILITY IN VIETNAM

R&D Potential:

- Selection and breeding of improved honeybee breeds that has high yield, good quality and high disease resistance to beekeepers.
- R&D effective methods for the prevention, diagnosis and treatment of disease and parasitic mites.
- New product and service development, especially for crop pollination services for high economic efficiency crops.
- Improved beekeeping practices including breeding propagation, bee health, apiary management and flowering.
- Joint research with processors and exporters to improve adoption of improved processing equipment and practices, including ISO and HAACP.

FEASIBILITY IN VIETNAM

R&D Potential (continued) :

- Adoption of technologies to add value to product and diversify the processed product base.
- Development of quality standards and pricing mechanisms that reward producers for high quality bee products.
- Further development of commercial honey regions for export.
- Market research to identify most profitable markets and market requirements for volume, quality and continuity of supply.
- Research into potential for clean and organic honey.
- Work with the industry to develop trademarks and brands, ensuring identification of quality, traceability and certification.

FEASIBILITY IN VIETNAM

R&D Capacity

Major Research Providers:

a) Ministry of Agriculture and Rural Development

Bee Research and Development Centre (BRDC)

b) Main Universities:

- **Hanoi Agriculture University I**
- **Thai Nguyen Agro-forestry University (Thai Nguyen Province)**
- **Thu Duc Agro-forestry University (Ho Chi Minh city)**
- **Tay Nguyen University (Central Highlands)**
- **Can Tho Agriculture University (Mekong Delta Region).**

FEASIBILITY IN VIETNAM

R&D Capacity

Major Research Providers:

c) Others:

- **Local organizations: Departments of Agriculture and Rural Development, Departments of Science, & Technology and Provincial Agricultural Extension and Vietnam Beekeepers Association.**
- **There is no official organization of private sector involved in research.**
- **Major collaborators include APIMONDIA, CIDSE, UNICEF, FAO, UNDP, Japan, The Netherlands, Israel, Germany, and Australia. etc.; NGOs as GTZ, KWT, OCFAM, and Vietnam Consumers' Association.**



***THANK YOU FOR
YOUR ATTENTION!***