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Author: **Center for Agricultural Policy**

Prosperity Initiative

Groundnuts

Small-scale Review of Groundnuts

PROSPERITY INITIATIVE ANALYTICS

Market Forces Reducing Poverty

supported by

Groundnuts

Small-scale Review of Groundnuts

Short analysis of the groundnut (peanut) sector as regards demand, competitiveness, impact and opportunities with the aim of helping to eradicate poverty in Vietnam through market forces

July 2008

Prepared by the Center for Agricultural Policy with Prosperity Initiative

Supported by: The Australian Government's Overseas Aid Programme (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, supported by managers from Prosperity Initiative (PI), a non-profit company which develops market sectors to create prosperity for large numbers of poor people in the Mekong Region.

PI and its partners find and develop sectors that can 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.

In the light of IPSARD's central role in rural policy development and its mandate to develop a commodity expert group, PI has been working with CAP-IPSARD to contribute to the development of appropriate skills and market knowledge. A group of staff from CAP has been working with a team of managers from PI since the beginning of 2008 and has been completing ten short sector studies during this first year. The 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 PI on the coconut industry. Other sectors covered have included honey, bananas, soybeans groundnuts, pomelo, chili, cardamom and cocoa. This joint work has been the context for technical skills development and capacity building of 9 staff from CAP-IPSARD during 2008.

The majority of the work in the studies was carried out by staff from CAP using both primary research in Vietnam 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/. During this work, 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.

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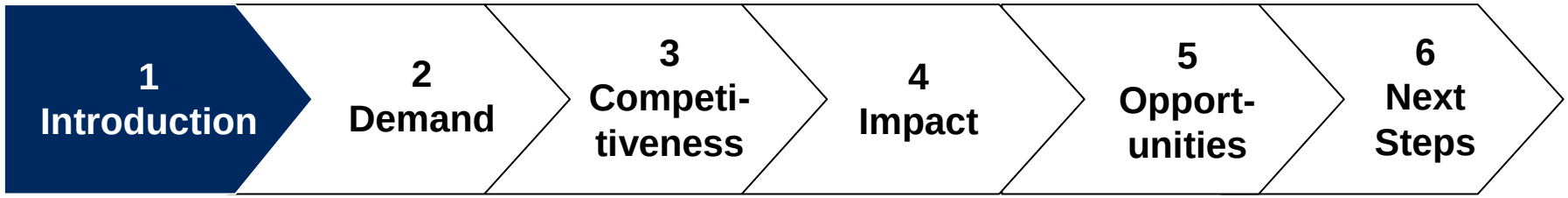
Chapter 1 – Introduction



- **PI / CAP approach to sector analysis**
- **Overview of the groundnut sector**
- **Segments and study focus**

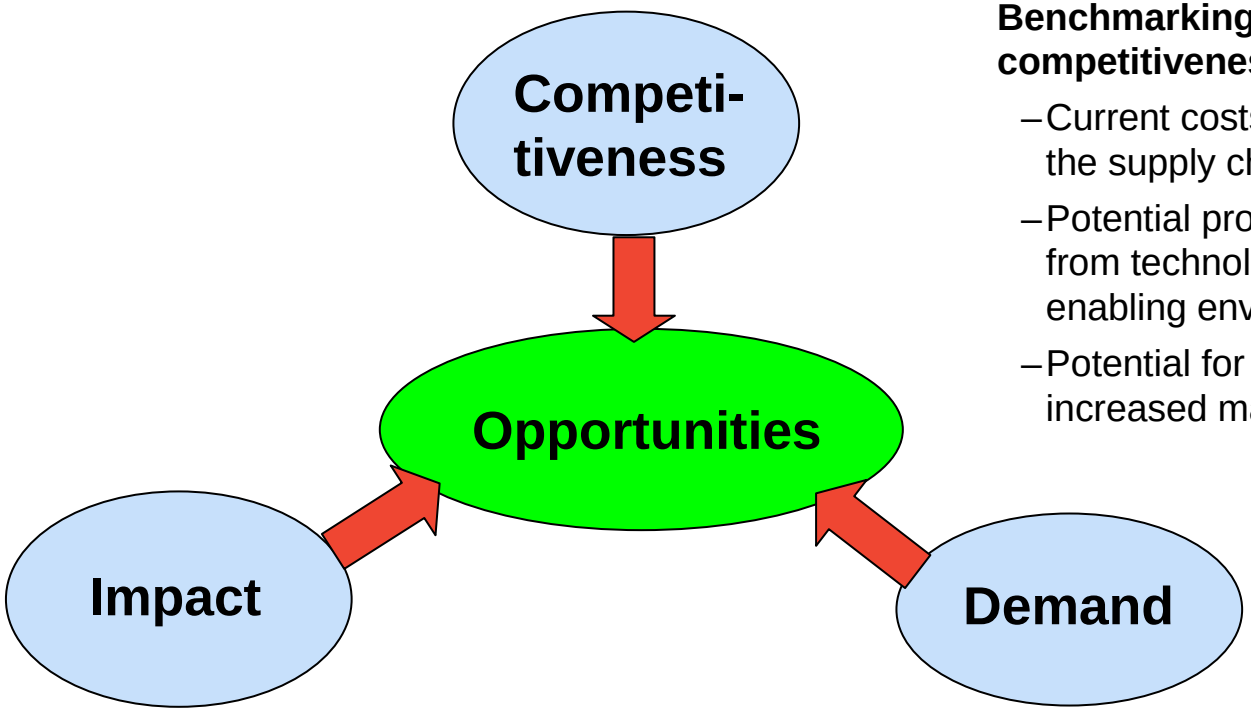
This is one of a series of small-scale studies carried out by the Center for Agricultural Policy* supported by Prosperity Initiative to identify opportunities to assist in eradicating poverty in rural Vietnam through market forces

While small in scope, these studies seeks 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 Vietnam as against other countries?
- What other opportunities do there appear to be 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 Vietnam?
- 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 PI 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

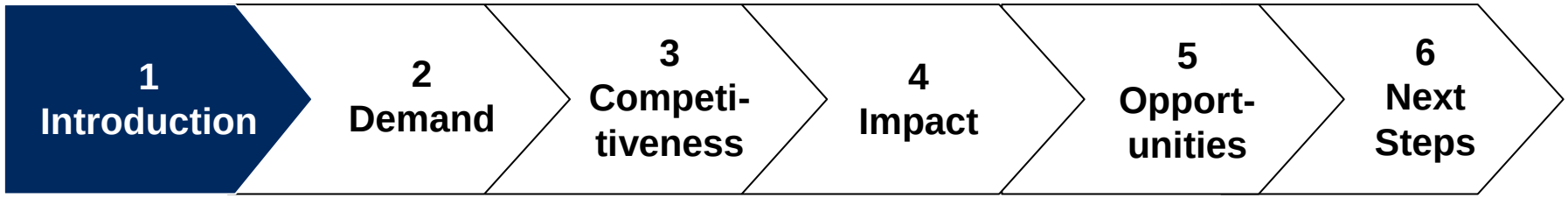
Distribution of potential benefits

- 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

Chapter 1 – Introduction



- PI / CAP approach to sector analysis
- Overview of the groundnut sector
- Segments and study focus

The groundnut is a fruit, not a nut …

Groundnut or peanut (*Arachis hypogaea*), is a species in the legume family Fabaceae native to South America, Mexico and Central America.

Temperature: require five months of warm weather,

Soil: light, sandy loam soil is the best

Water requirement: an annual rainfall of 500 to 1000 mm (20 to 40 in) or the equivalent in irrigation water

Harvest: 120 to 150 days

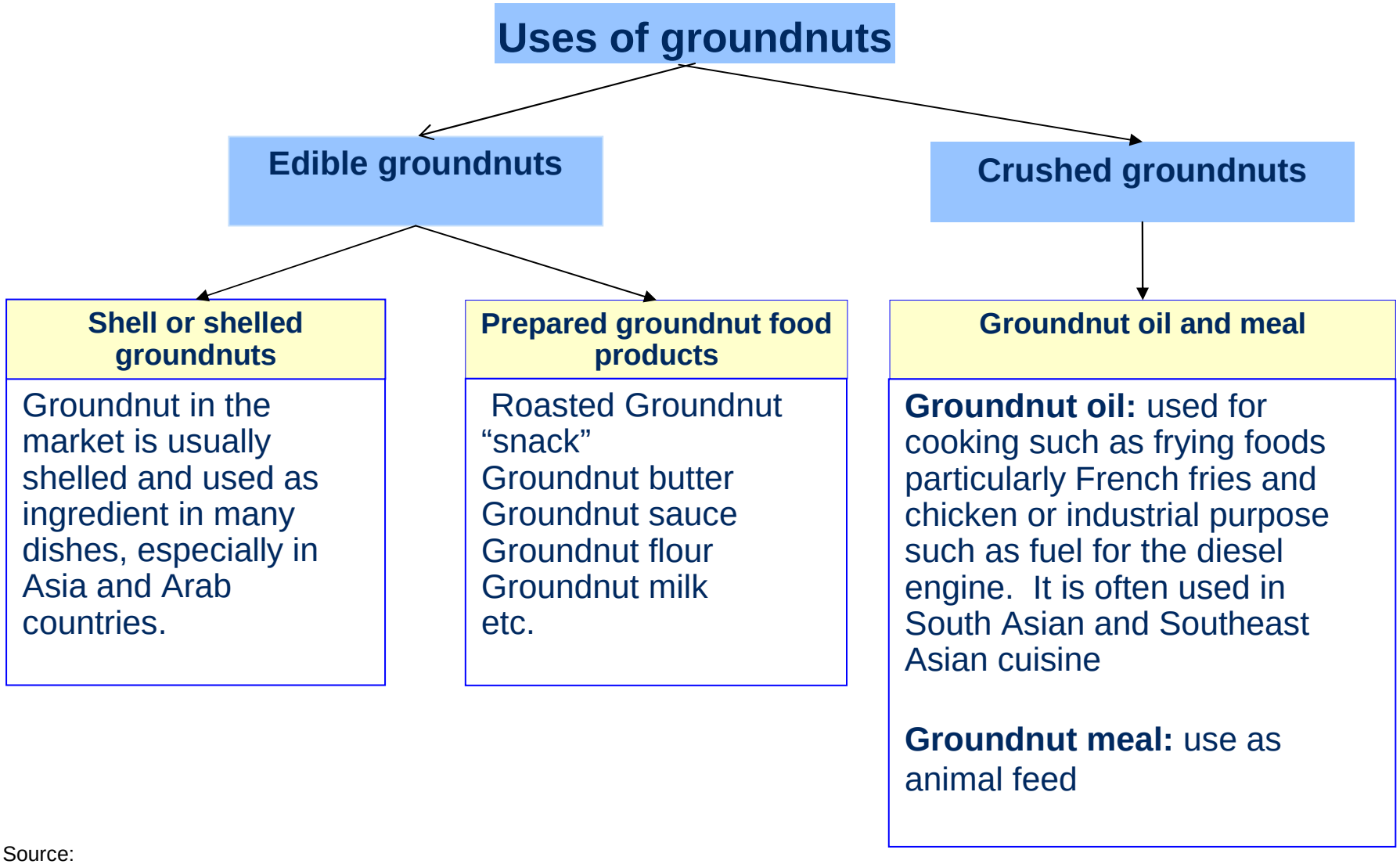
The flower of the *Arachis hypogaea* is borne above ground and after it withers, the stalk elongates, bends down, and forces the ovary underground

Poison: particularly susceptible to contamination during growth and storage. Poor storage can lead to an infection by a mold fungus releasing aflatoxin

Groundnut (*Arachis hypogaea*)

Source: American Journal of Botany (2007)

Food consumption, oil and meal are the main uses for groundnuts

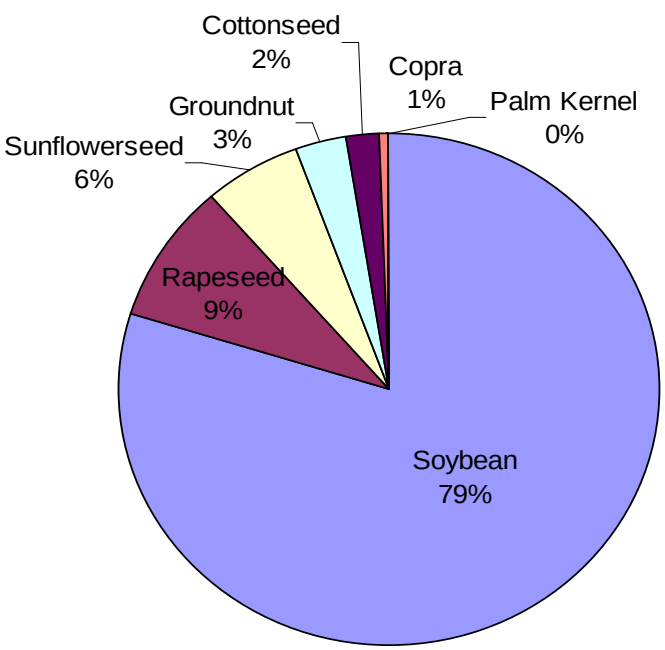


Source:

While the world market for groundnuts expanded by over 160% from 1997 to 2007, they maintained their share in the world oilseed market at 3%

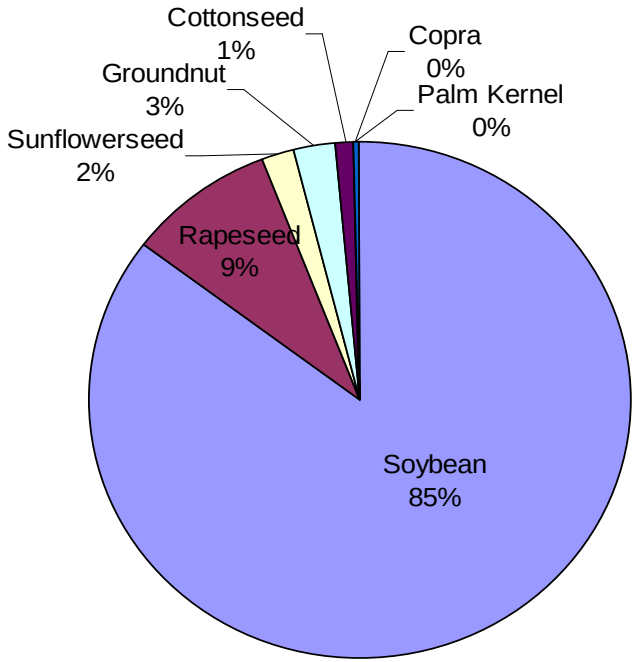
Share of global oilseed exports

Total 100%=33,492 thousand MT



1997

Total 100%=88,517 thousand MT

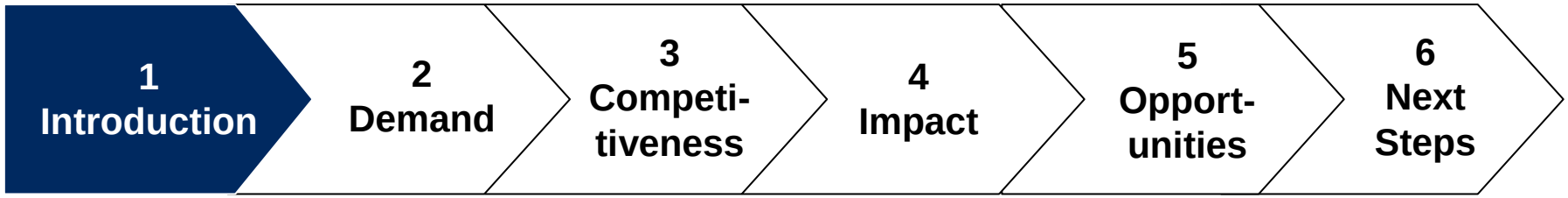


2007

The groundnut is traditionally classified into the oilseed group by almost organizations such as FAO and USDA. It is therefore appropriate to look at the share of groundnuts compared to other oilseeds to illustrate its importance in the world market

Source: USDA

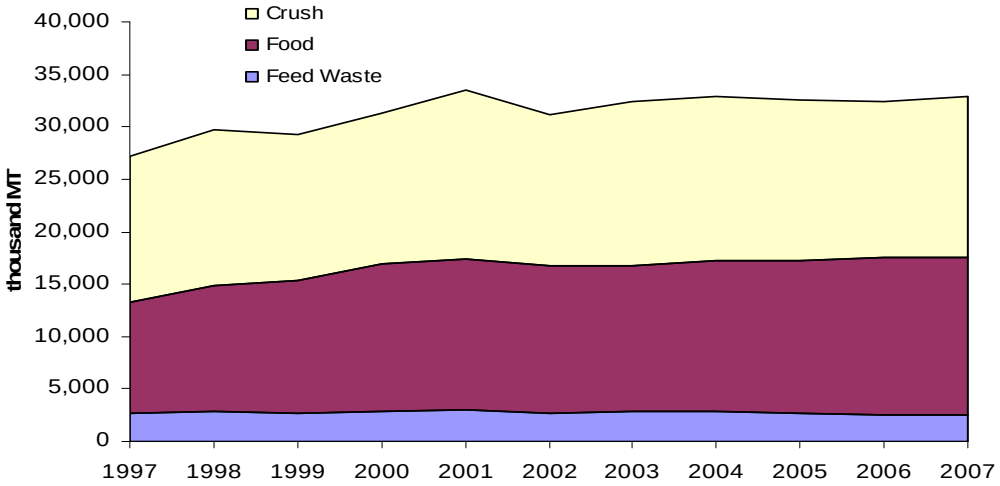
Chapter 1 – Introduction



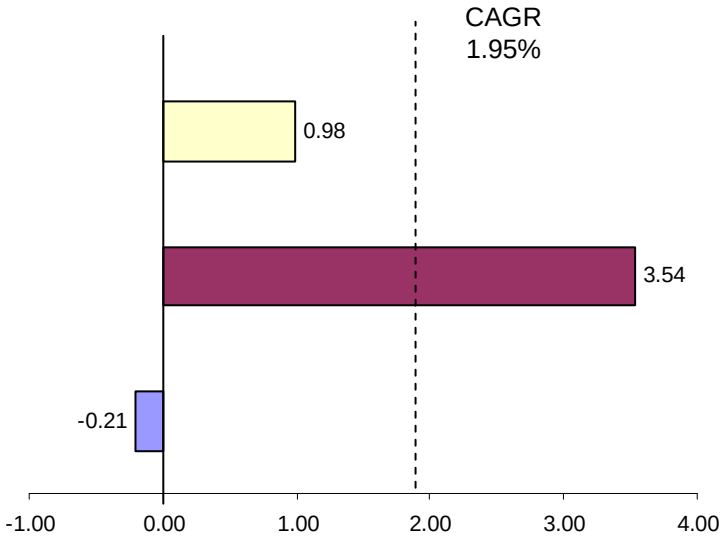
- PI / CAP approach to sector analysis
- Overview of the groundnut sector
- Study focus

Crushing for oil and meal remains as the most important use for groundnuts but its share has decreased while the share of groundnuts used for food products has steadily increased over time

World consumption 1997-2007 respect to segment



CAGR 1997-2007

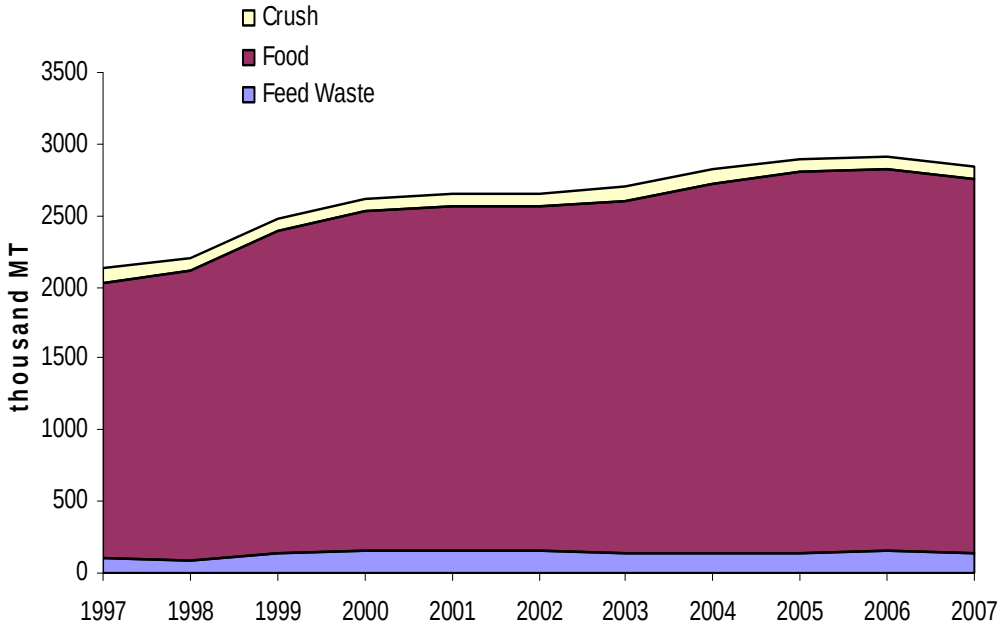


- Demand for crushing for processing oil and meal had low growth rate because of the replacement of other vegetable oils by groundnut oil (such as soybean oil)
- The main reasons for the increase in consumption of edible groundnuts are the increase in population and income

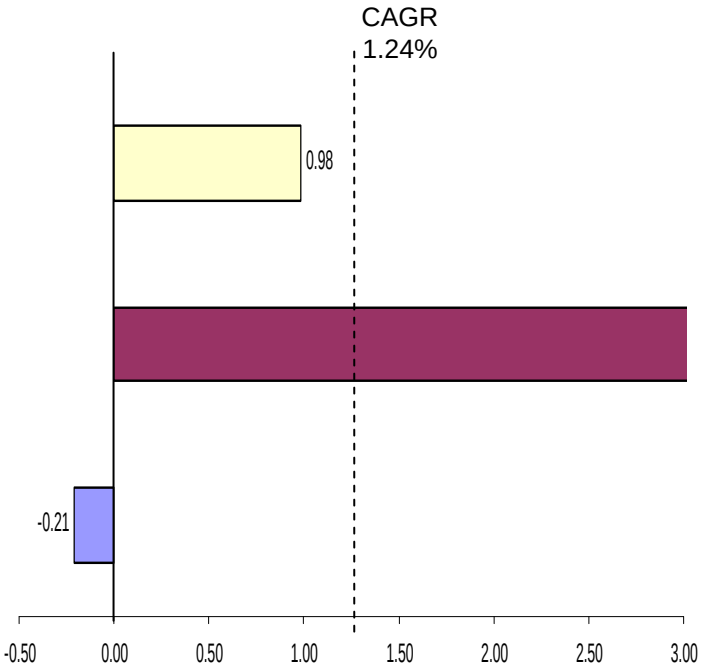
Source: USDA and PS&D database

Food use was by far the largest application for groundnuts in importing countries and its growth rate was also higher than that of crushed groundnuts

10 biggest importers' consumption 1997-2007 by segment



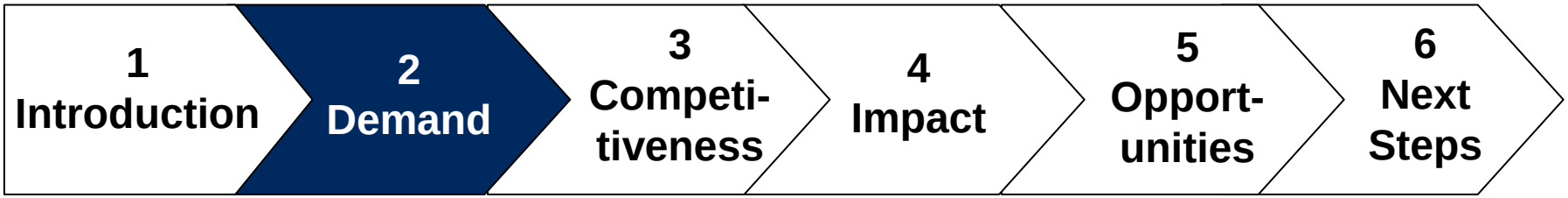
CAGR 1997-2007



- The rest of this study emphasizes groundnuts for food use (edible groundnuts) because the overall consumption of edible groundnuts is increasing while the trend in groundnut oil and meal consumption is down; the market for traded edible groundnuts is also huge compared with that for crushed groundnuts

Source: USDA and PS&D database

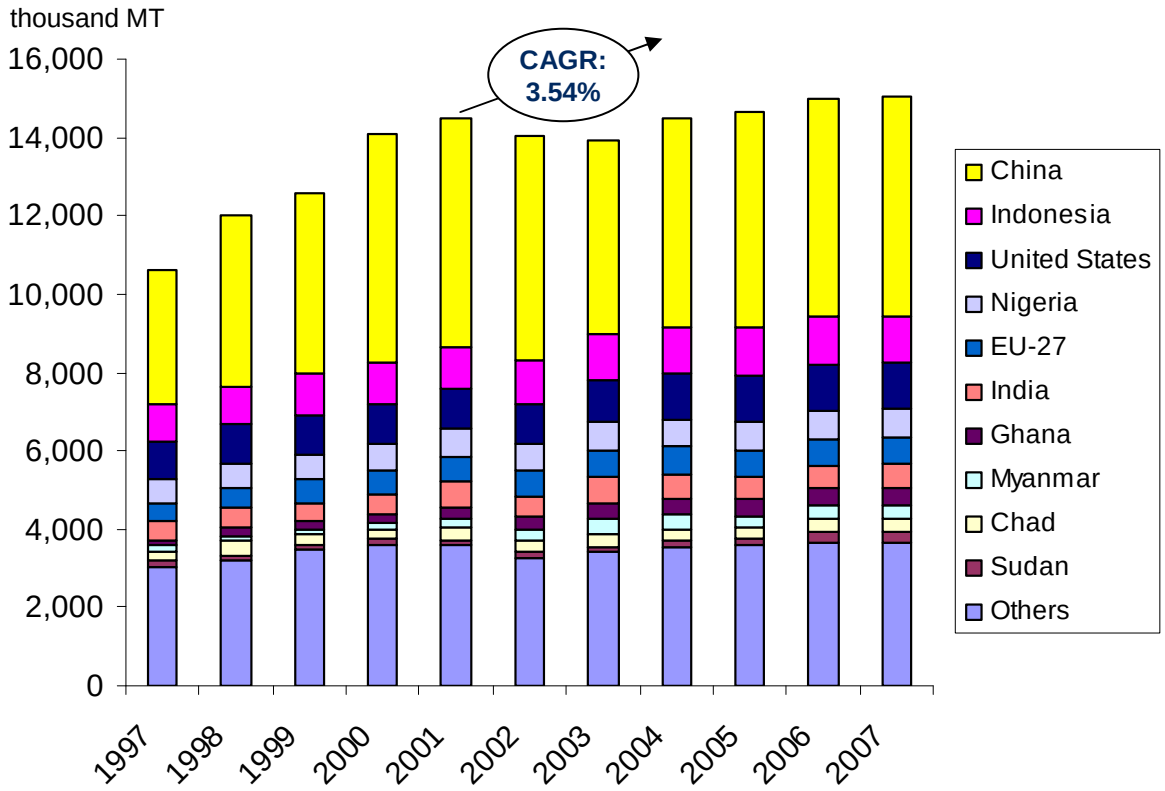
Chapter 2 – Demand



- **Global consumption**
- Imports of edible groundnuts
- Local consumption

Global consumption of edible groundnuts increased 3.54% per year between 1997 and 2007 to 15 million metric tons. Consumption has increased mainly in East Asia and Africa

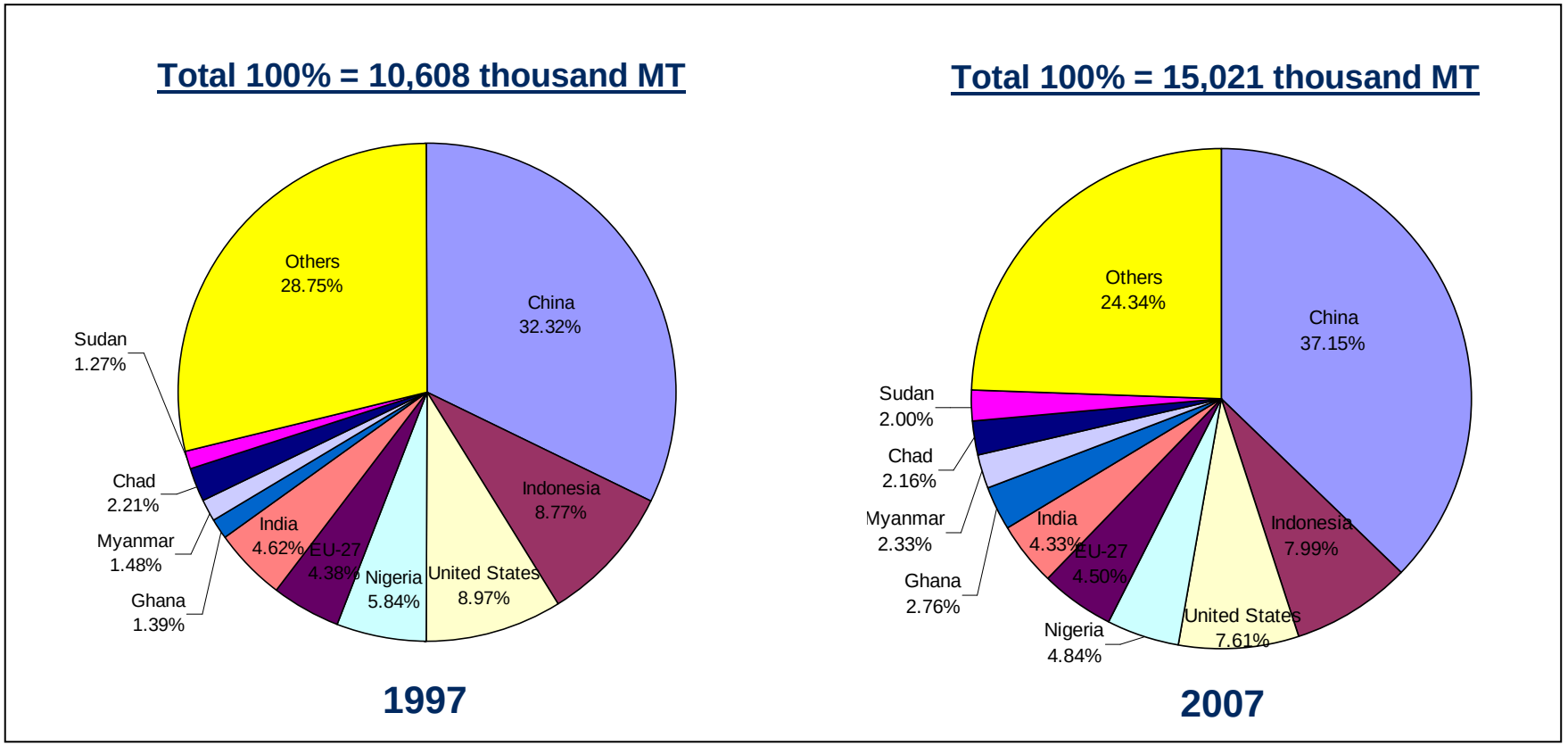
Total world edible groundnut consumption 1997-2007



- Global consumption of edible groundnuts increased some 1.5 times between 1997 and 2007, from 10.6 to 15 million metric tons.
- Between 1997 and 2007, the annual growth rate was 3.54%, due primarily to rapid growth in China, Ghana, Sudan and Myanmar.
- However, consumption growth rate reduced from 2001, with an annual growth rate of 0. 63%, because of the dramatically decreasing demand in China and India.

Source: USDA and PS&D database

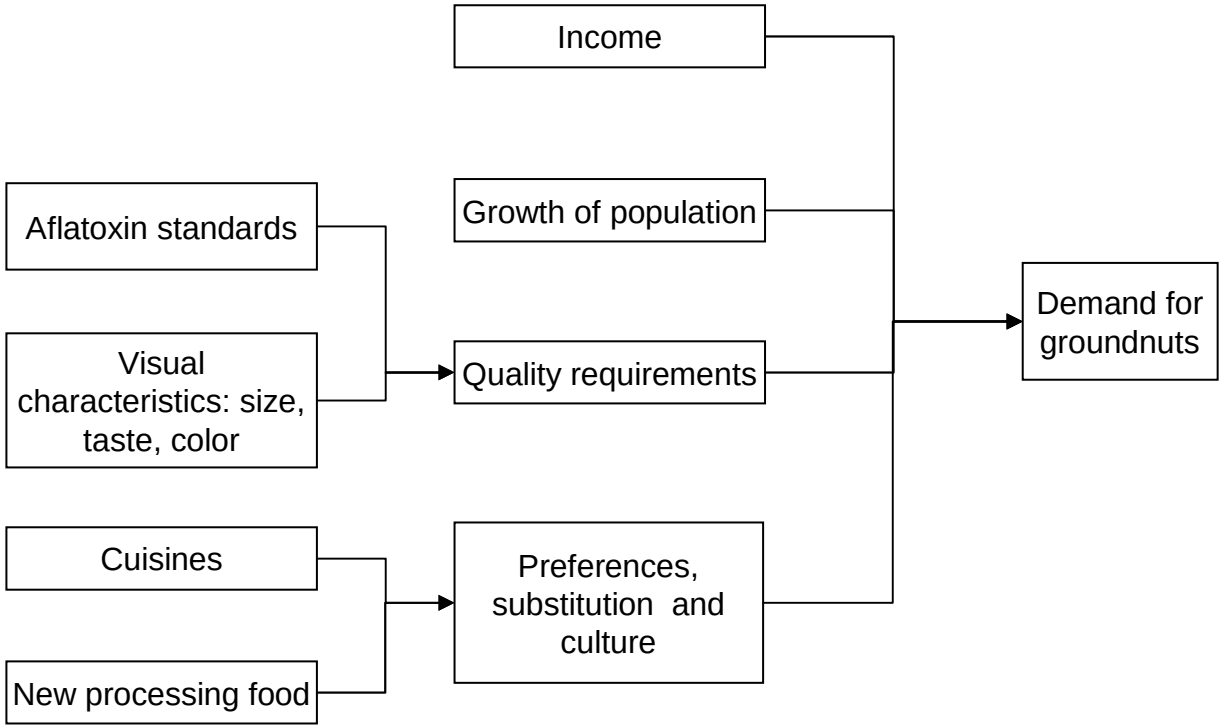
Indonesia has replaced the United States to become the second biggest groundnut consuming country in the world after China



- China accounted for 56% of the additional global consumption from 1997-2007
- While China's average annual growth rate over the 10-year period from 1997 to 2007 was 5%, this growth was concentrated in the early part of the period and its average annual growth rate from 2001-2007 was in fact negative at -0.73 %

Source: USDA and PS&D database

The global demand for edible groundnuts is driven by changes in the preferences of consumers



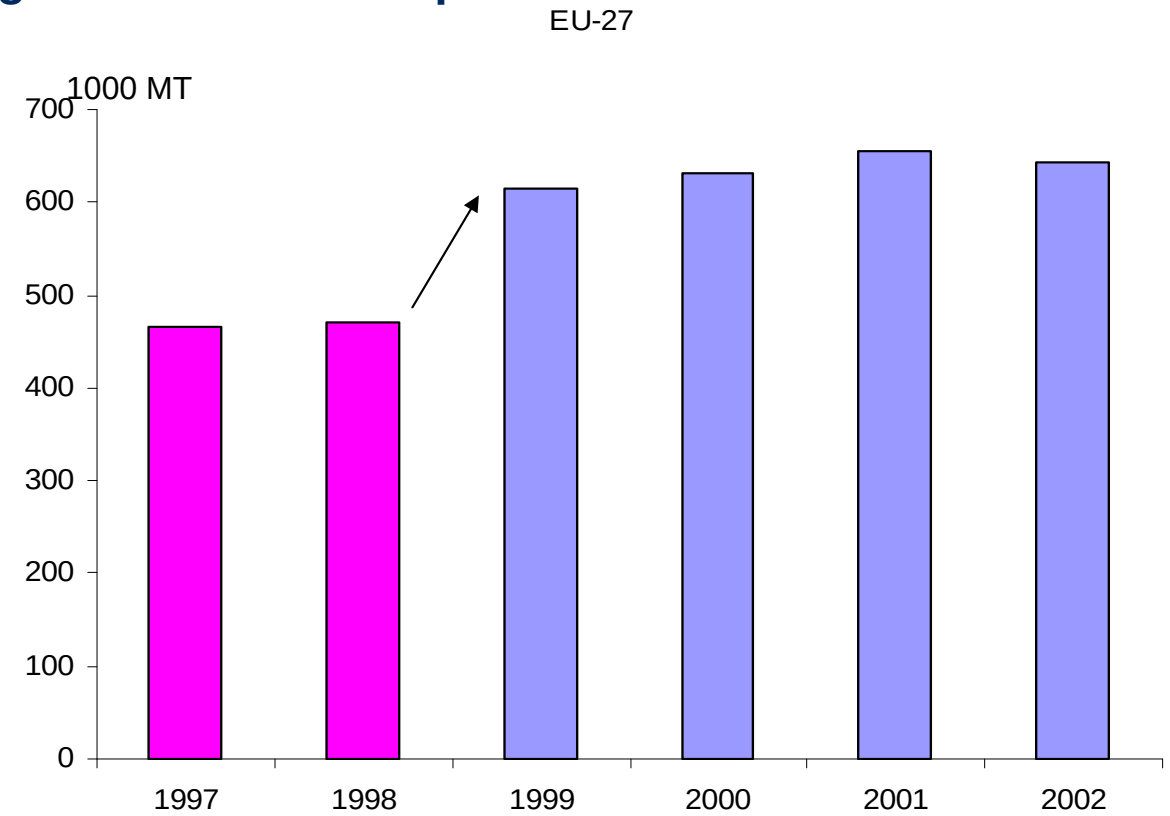
Source: Team analysis

Specific growth drivers (1): One of the factors driving growth is the fact that groundnuts are perceived as having positive health properties and are a regular feature of global diets

- Improved health benefits derived from eating groundnuts: low energy, reduction in risk of chronic disease.
- Asian countries, particularly Indonesia, consume large amounts of groundnuts as sauces and gravies
- United States and Europe consume groundnuts as salted, dry-roasted and specialty nuts (such as honey roasted, hickory smoked or chilli-flavoured), snacks or peanut butter, confectionery and chocolate

Source: Amy E.G., et al (2004) Improved Diet Quality with Peanut Consumption, Journal of the American College of nutrition, Vol.23, No6, 660-68 p.

Specific growth drivers (2): The strict inspection measures imposed by the EU in the late 1990s and the resulting guarantee of quality lead to a significant increase in groundnut consumption there

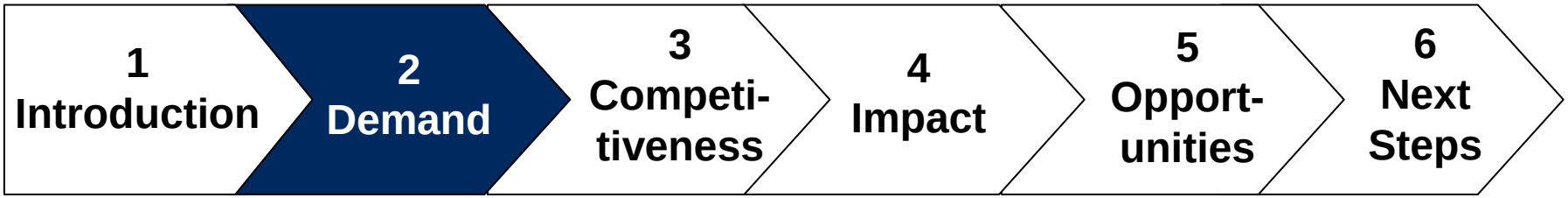


Groundnut consumption in Europe increased by 30% in 1999 compared with 1998. The main reason appears to be the establishment of regulations in the EU regarding aflatoxin in1999*

Source: USDA and PS&D database

* Rios L.B.D, Jaffee S. (2008) Barrier, Catalyst, or Distraction? Standards, competitiveness, and Africa's Groundnut exports to Europe

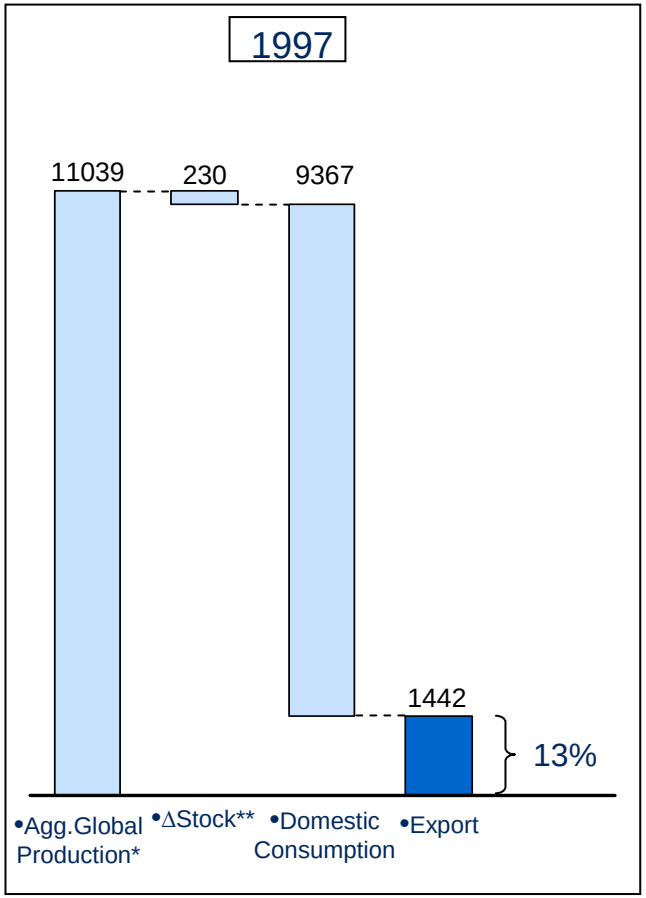
Chapter 2 – Demand

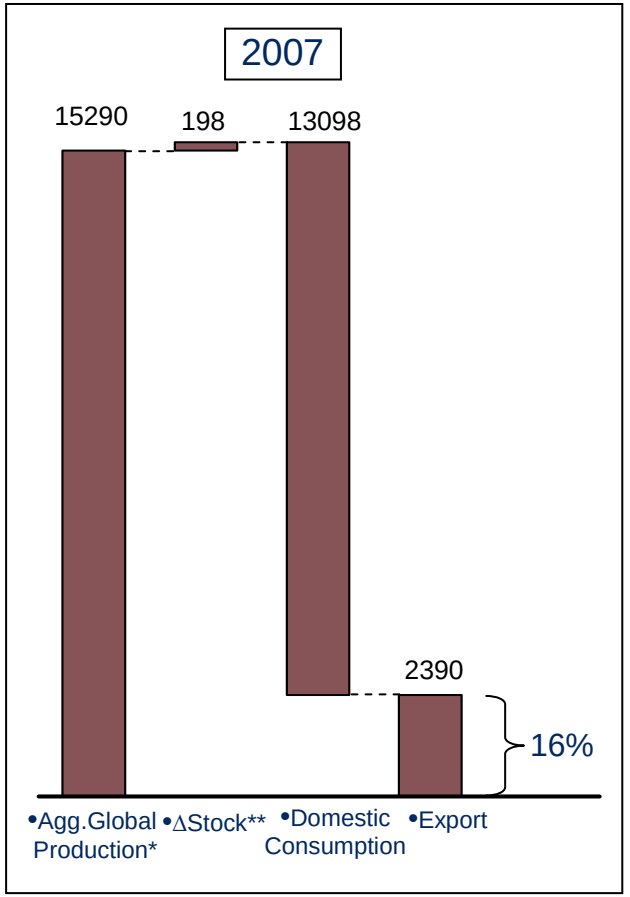


- Global consumption
- **Imports of edible groundnuts**
- Local consumption

Most edible groundnuts are produced for domestic consumption only, and only a relatively small proportion is traded internationally.

Domestic Production, Consumption and Exports of 1997– 2007 (thousand MT)

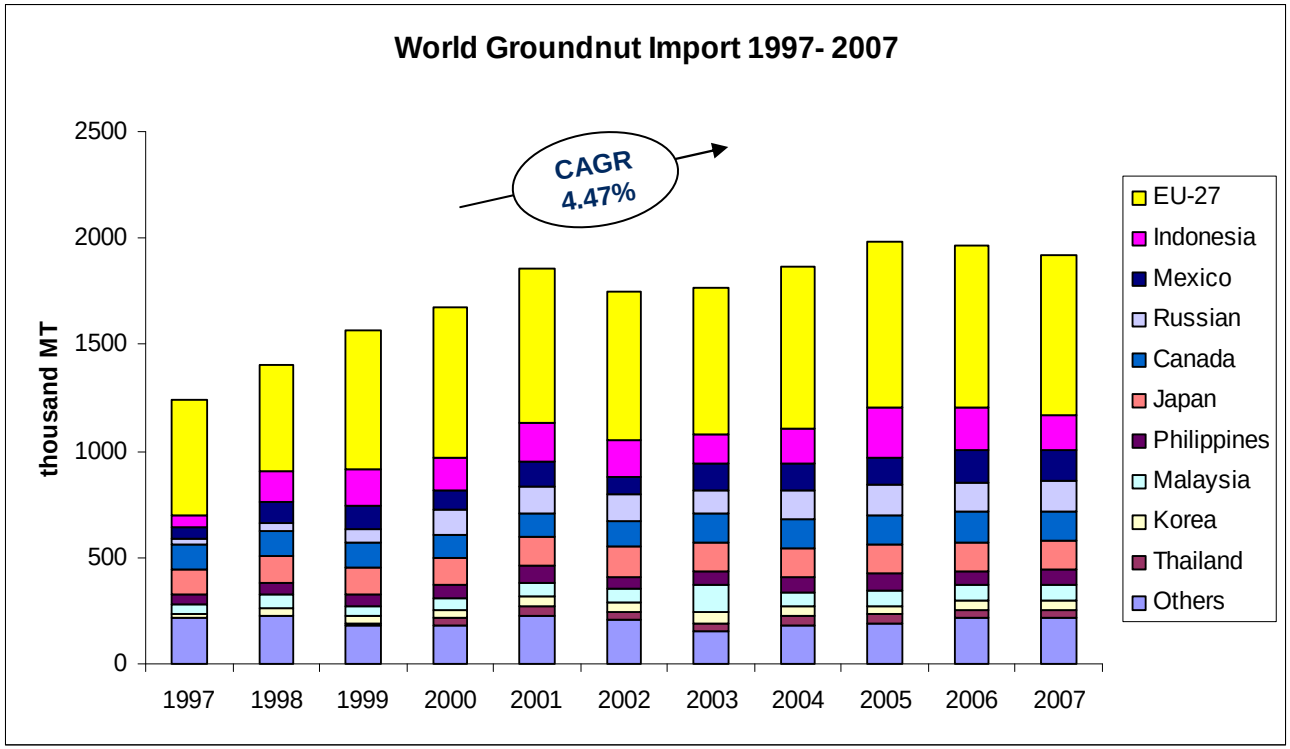




- Ending stocks (change in stock) were negligible for all countries except the US, where they stood at 28% of total production during 1996-2001***
- Fungus would incidentally or even regularly appear in groundnut of many countries. It is the main problem for exporting groundnut, therefore trading groundnut volume ****

Source: USDA and PS&D database
*: Production= -Δ stock+ Domestic consumption + export;
**: ΔStock of edible groundnut equals to stock of seed groundnut because stock of crushed groundnut exist under stock of oil and meal
***: Ndiame D., et al (2003) Groundnut policies, Global trade dynamics and the impact of trade liberalization, the World Bank
****: Eropa (2002) Organic and Fair trade Peanut markets in Europe

World groundnut imports increased by 4.47% annually from 1997 to 2007, higher than the average growth rate of consumption of 3.54% per year



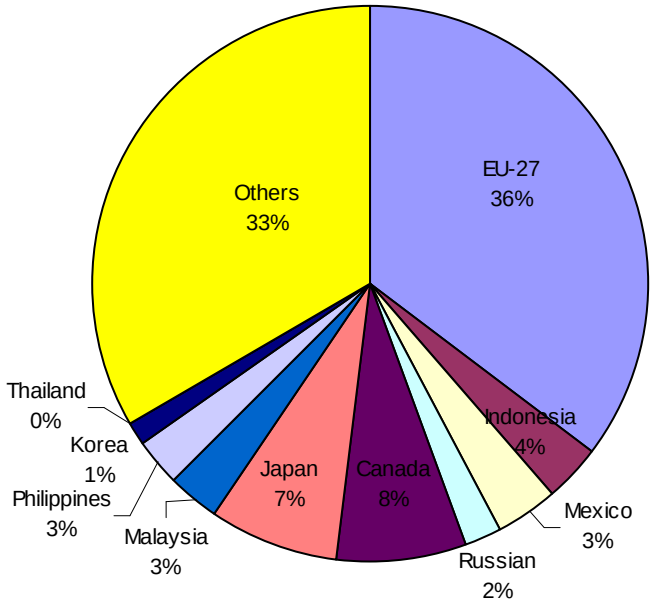
- Total importing of edible groundnut increased 50% between 1997 and 2007, from 1.24 to 1.92 million metric tons.
- Asian countries (Indonesia, Philippines, Korea and Thailand), Mexico and Russia were the main contributors to the increase in imports from 1997-2007 with higher annual growth rate than average

Source: USDA and PS&D database

Of the 10 biggest importing countries, 4 are from Southeast Asia and 2 from East Asia. Their proximity suggests that they could be good potential markets for Vietnam

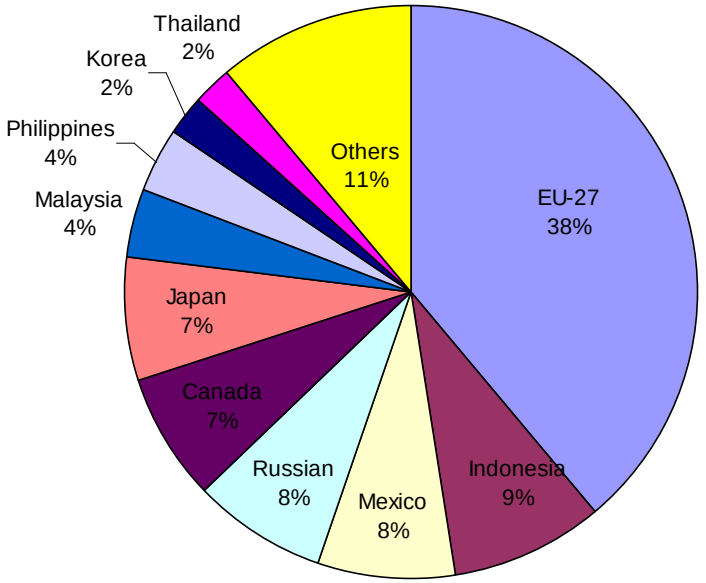
Share of groundnut import market 1997-2007

Total 100% = 1,241 thousand MT



1997

Total 100% = 1,923 thousand MT



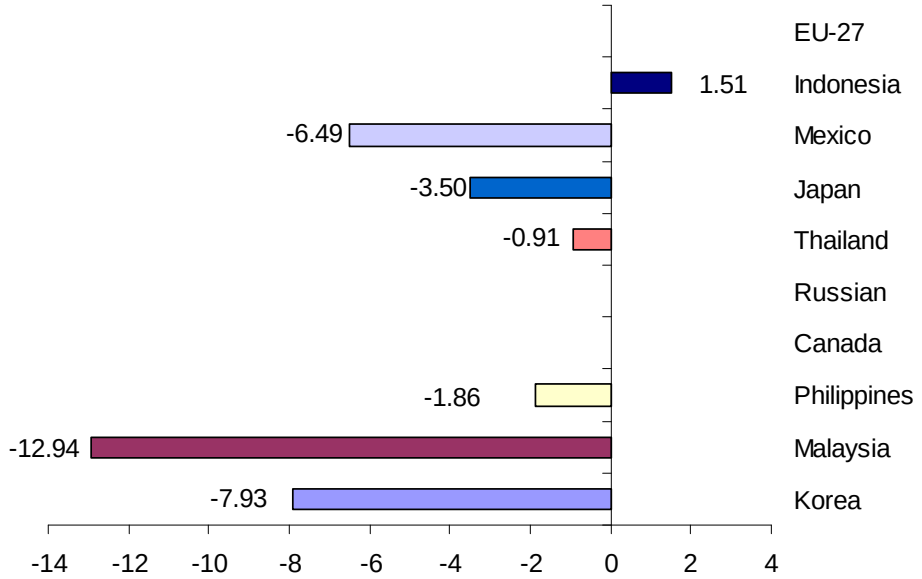
2007

4 biggest importing countries account for 75% of the additional edible groundnuts imported over the last 10 years, especially the EU-27 accounting for 30%, and Indonesia and Russia for 16% each

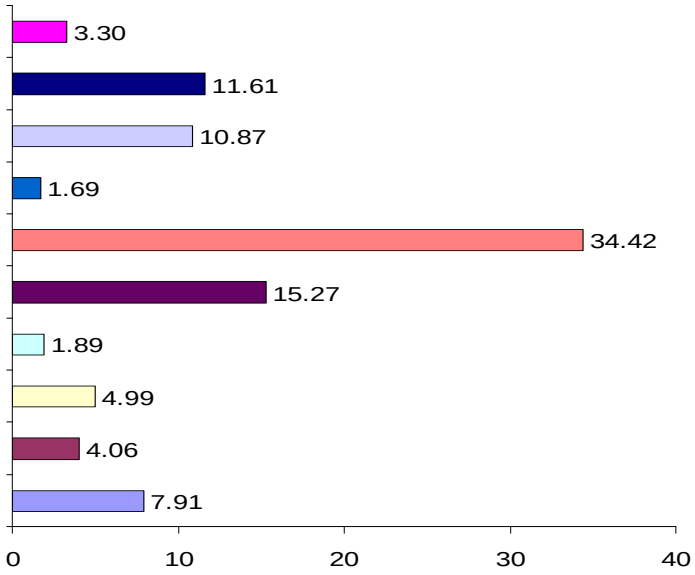
Source: USDA and PS&D database

In most of these biggest importing countries, the growth rate of imports is much higher than the growth rates of their production

CAGR of production (%)

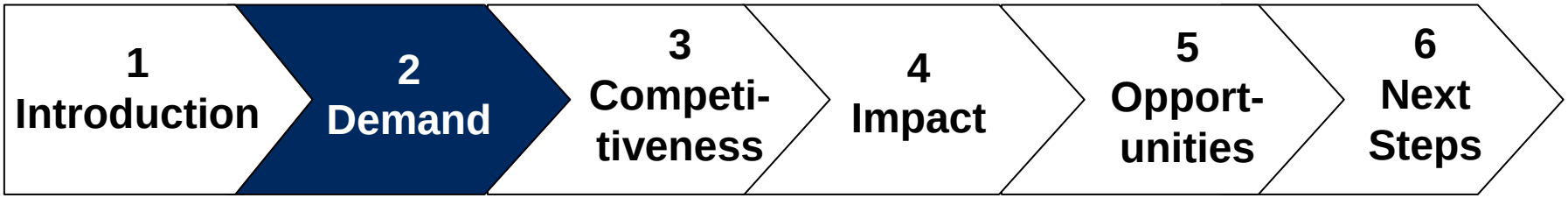


CAGR of imports (%)



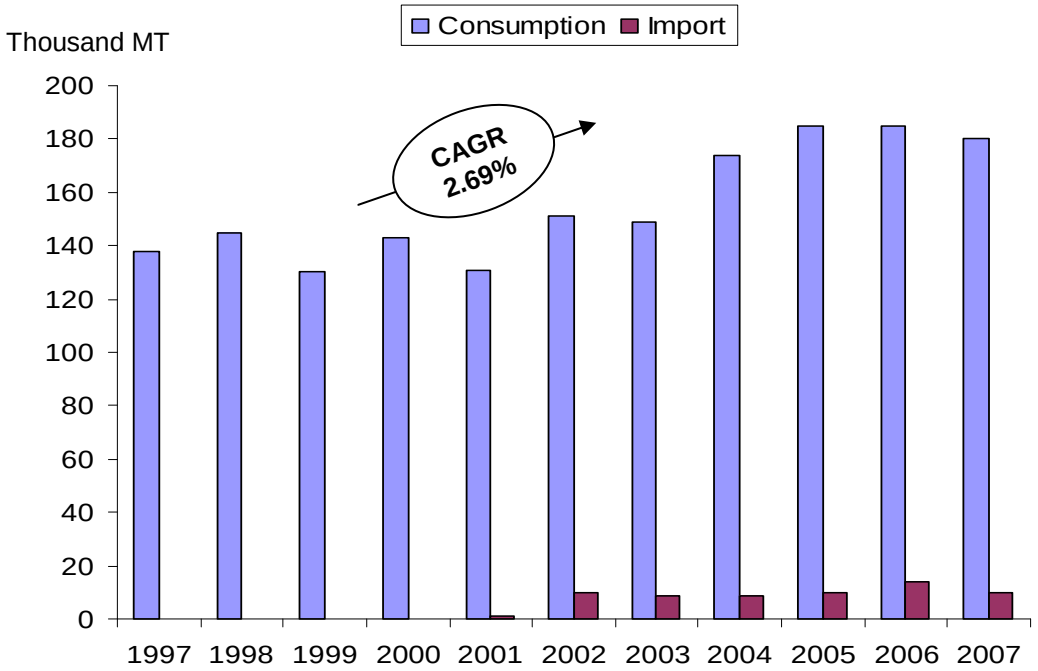
- Among the 10 biggest importing countries, there are 3 countries and regions that do not plant groundnuts
- All of the countries that have been planting groundnuts have decreased production by reducing harvesting areas, except for Indonesia

Chapter 2 – Demand



- Global consumption
- Imports of edible groundnuts
- **Local consumption**

Vietnamese groundnut consumption increased at 2.69% per year, lower than average world growth rate of 3.54%



- The growth in both consumption and exports of edible groundnuts in Vietnam has driven production and imports
- Recorded domestic consumption accounts for around 62.5% of edible production, although the true percentage may be lower because unofficial exports to China which are believed to be high but for which no data are recorded or available
- The main reason for the sharp increase in imports was that Vietnamese Government has been reducing restrictions on the import of commercial goods.

Source USDA

In regular markets, Vietnamese consumers usually buy:
(a) Raw groundnuts to cook at home
(b) Traditional groundnut products such as “kẹo lạc”, “cuđơ”, or
(c) Roasted or boiled groundnut sold in small volumes at pavement “bistros”

- There are few types of groundnuts processed industrially. Only two companies advertise industrially processed groundnuts products on the Internet: Tan Tan Company and Taitai Company
- Groundnuts are sold in small groceries and in traditional markets along with other nuts

A. Groundnut industrial supply chain

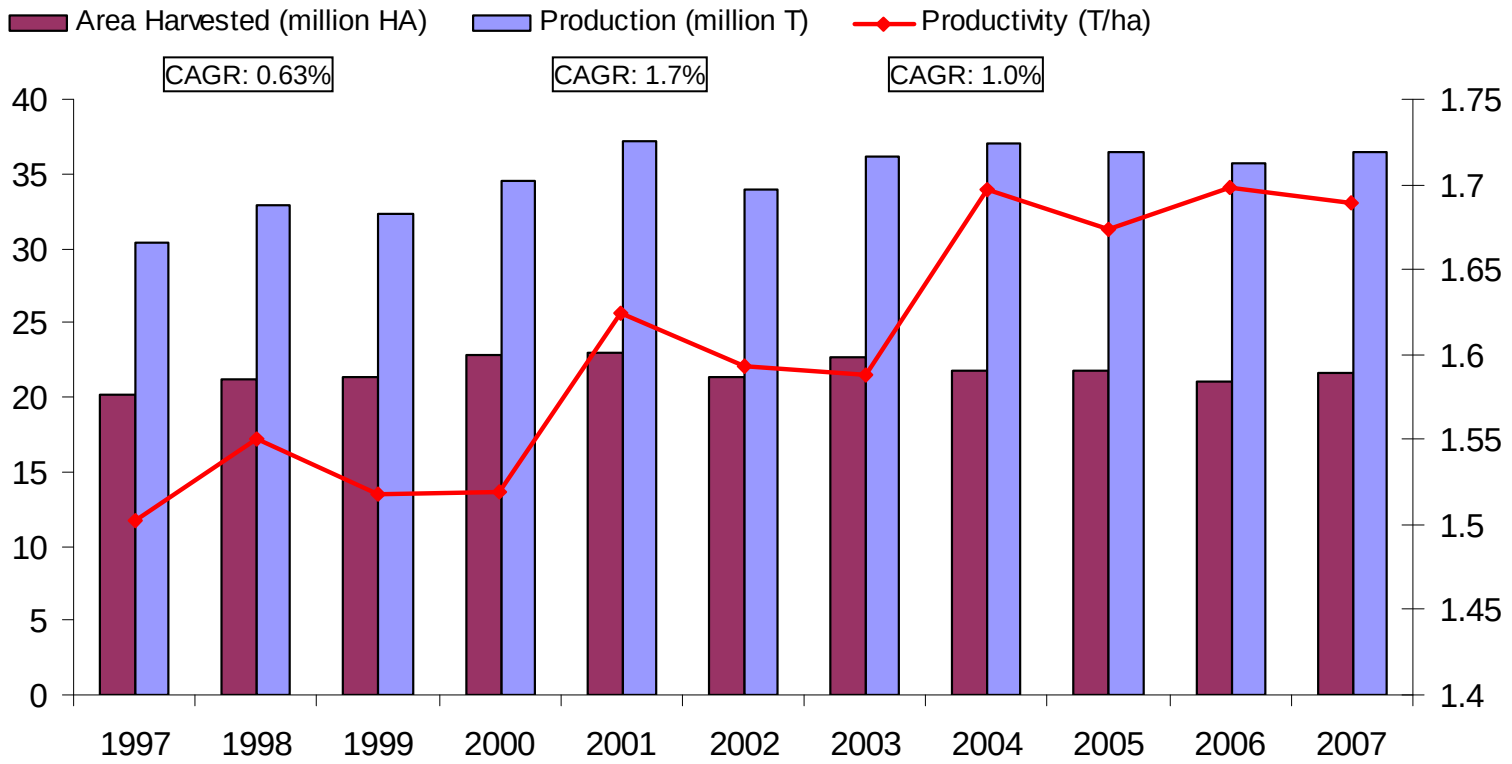
- **Global production and export**
- Main exporting market of Vietnamese groundnut
- Supply chain

B. Performance of Vietnam

- Comparative costs of supply
- Comparative quality of groundnut
- Comparative price
- Seasonality
- Constrains for the future

C. Conclusion

Global production of groundnuts is around 34 million tonnes per year and has been growing at a rate of 1.7% since 1997

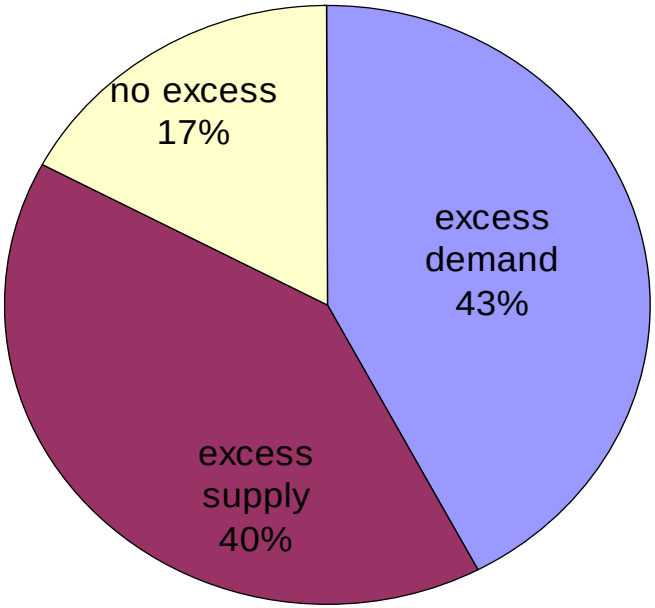


Since the area harvested has increased only slightly, productivity has been the major factor driving this recent increase in production

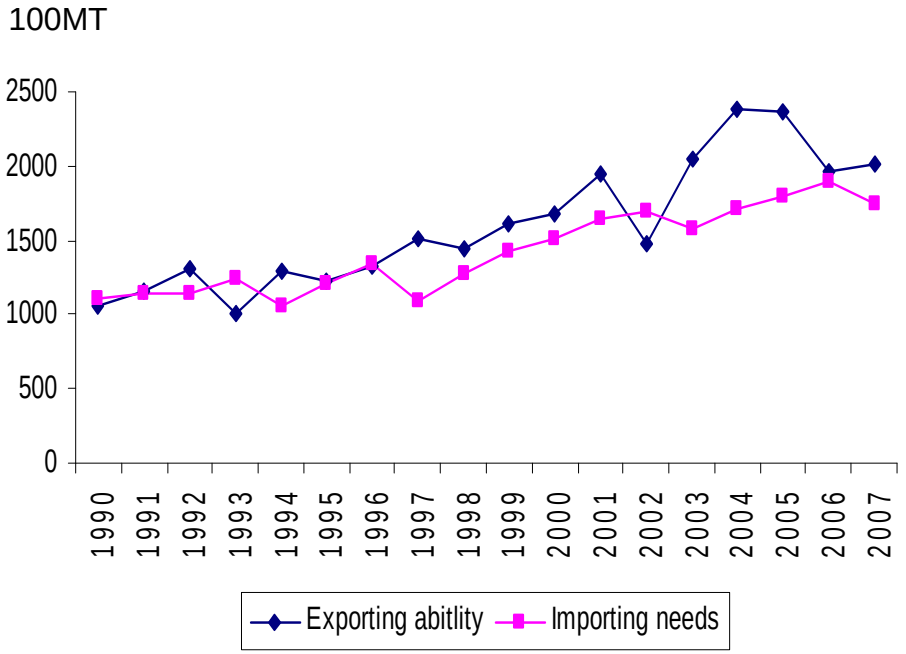
Source: PS&D

However, 40% of countries produce more than they consume, with 43% importing more than they produce

Countries Consuming Groundnuts by type 1997



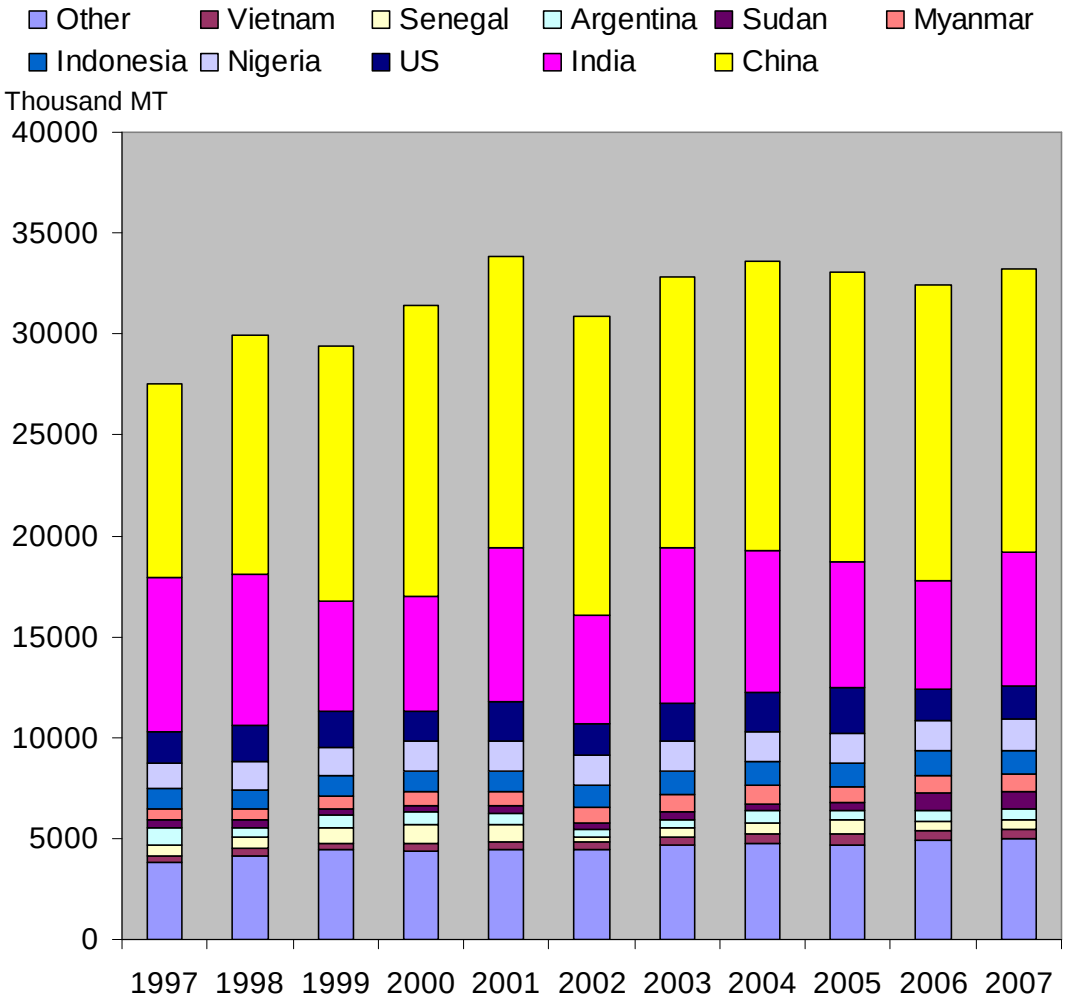
Export & Import Ability in the world 1990-2007



- Among the 22 countries with the ability to export, the top 3 are also the biggest producers
- World groundnut market was in excess supply for most of the period from 1997- 2007. In 1997, for example, average possible exports were 1,575 million metric tons compared with import needs of 1,394 million metric tons

Source: USDA

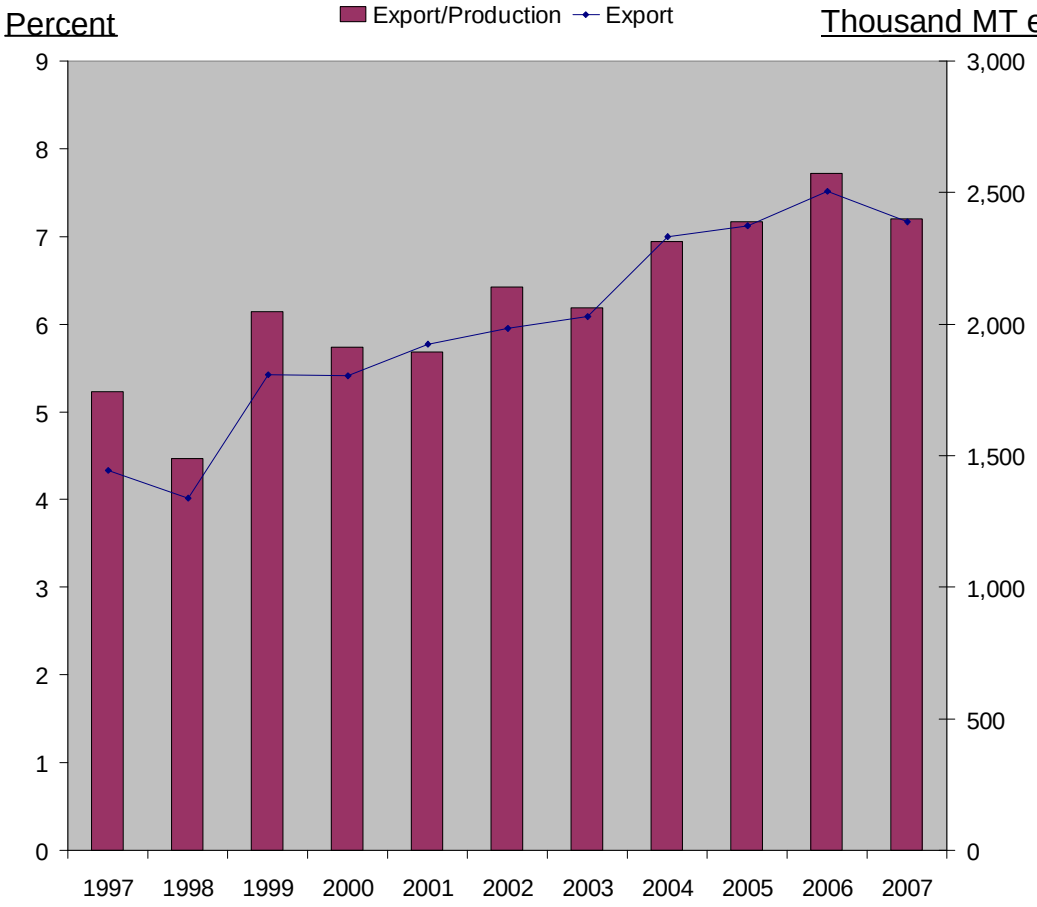
The top 10 countries account for about 85% of global production, with India and China producing more than 60%, although growth has been highest in Sudan



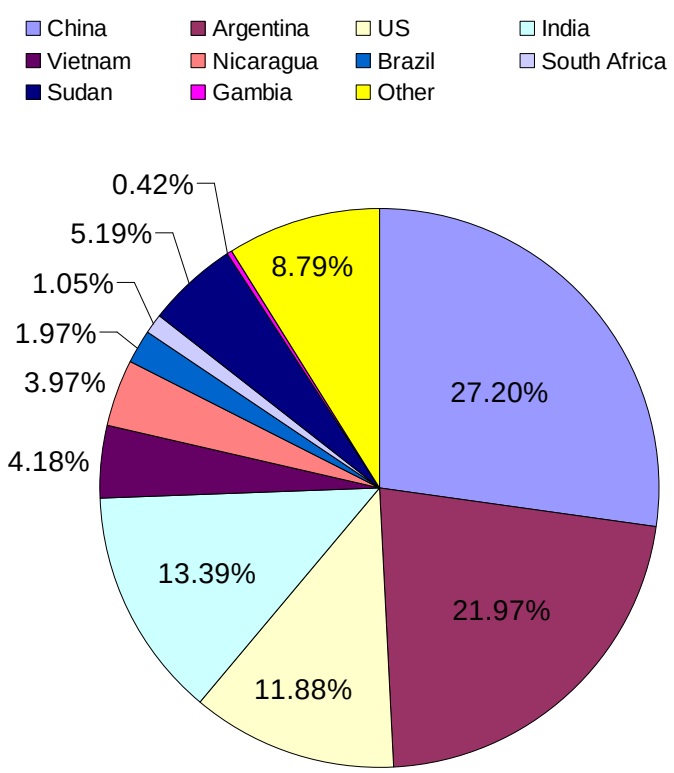
Countries	CAGR	Sharing 2007
China	3.4	42.1
India	- 1.2	19.8
US	0.5	5.1
Nigeria	1.9	4.6
Indonesia	1.3	3.4
Myanmar	4.2	2.6
Sudan	7.8	2.5
Argentina	- 4.3	1.6
Vietnam	2.4	1.3
Senegal	-1.6	1.2
Other	2.5	15.1

Source: PS&D

Groundnut exports as a percentage of production have remained flat, but trade in groundnuts is very concentrated. Less than 6% of the world groundnut crop is traded internationally, and the ten largest exporters supplied about 91% of the world export trade in 2007

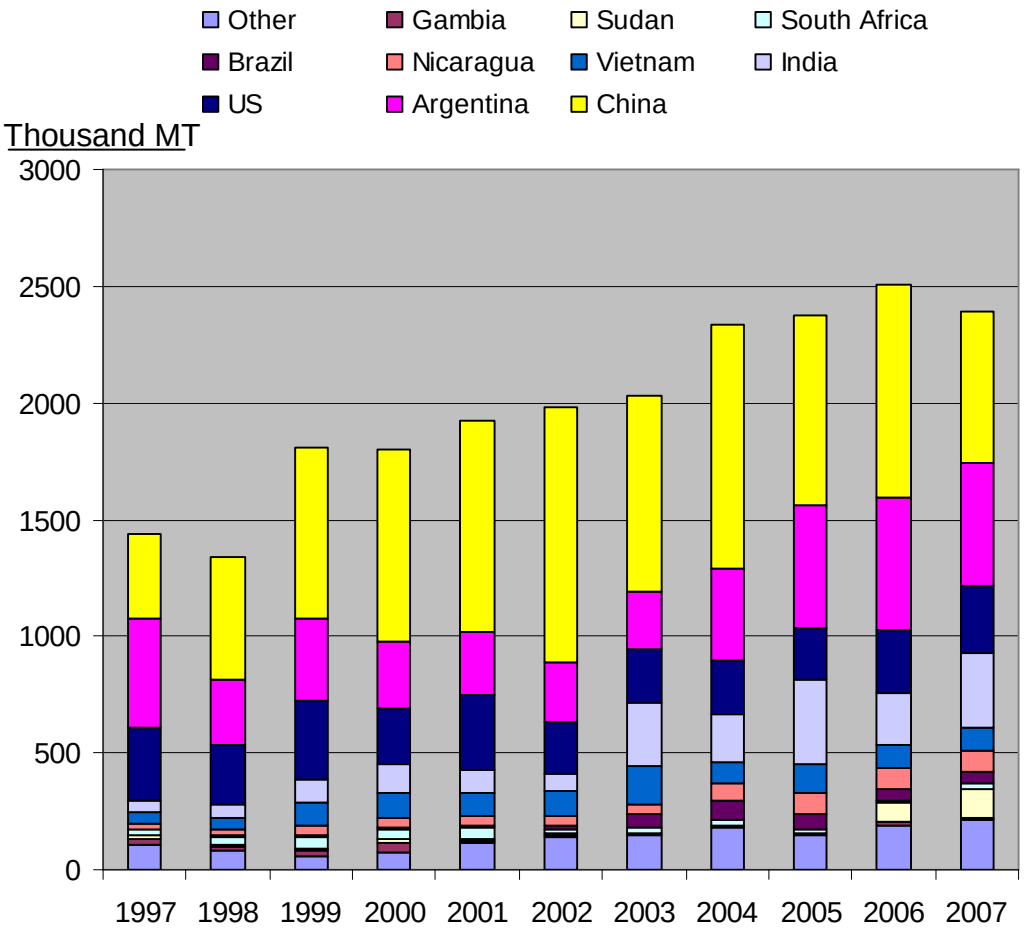


Share of groundnut export market in 2007



Source: PS&D

China, Argentina, USA and India are still the major export countries accounting for around 75%, and have the advantage of economies of scale and low production costs

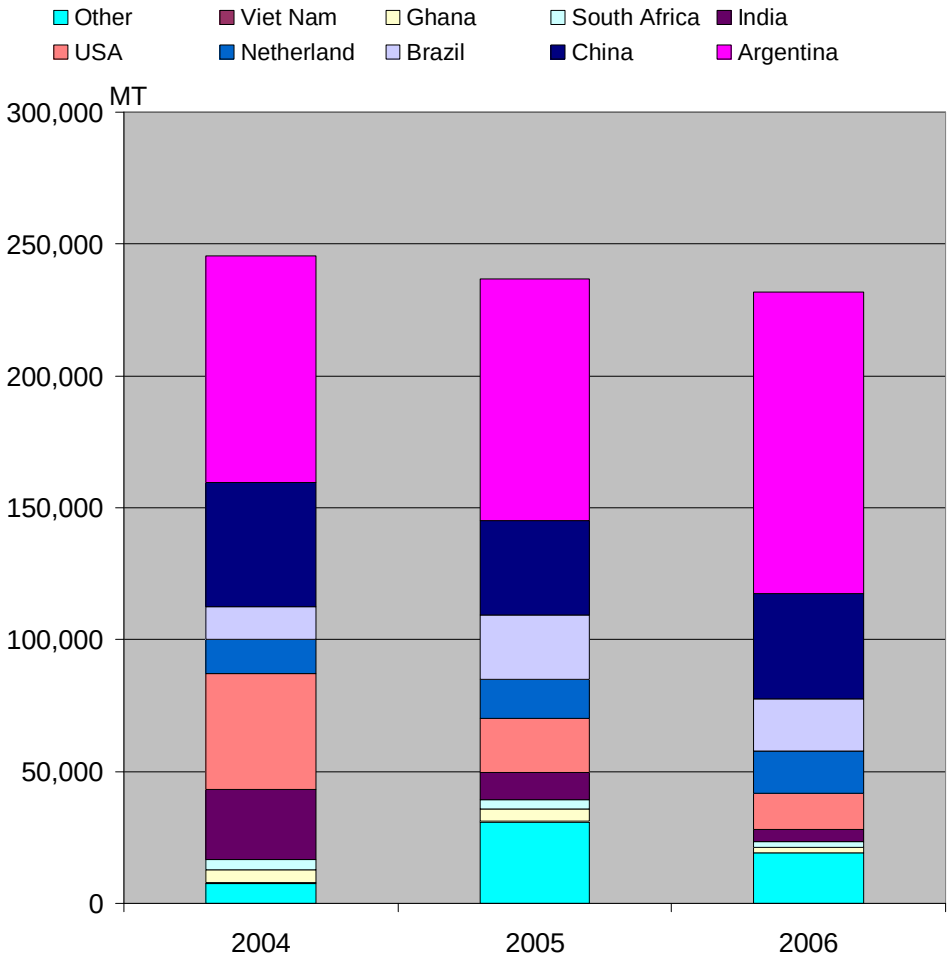


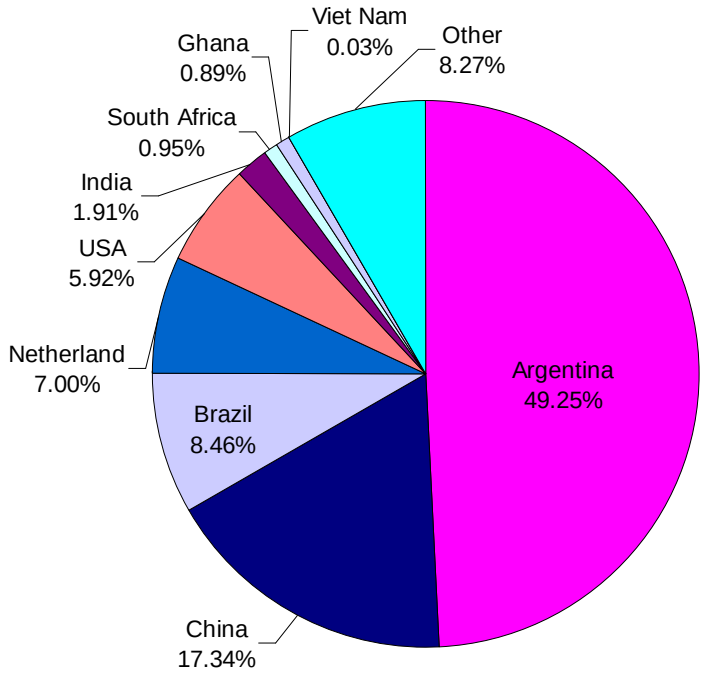
Country	CAGR %	% Share 2007
China	5.4	27.1
Argentina	0.9	21.9
USA	- 0.7	11.8
India	18.3	13.3
Vietnam	6.1	4.1
Nicaragua	16.3	3.9
Brazil	28.4	1.9
South Africa	0	1
Sudan	21.1	5.1
Gambia	-8.9	0.4
Other	6.5	16.1

Source: PS&D

Maintaining exports to Europe is a challenge especially for developing countries since edible nuts are sometimes excluded because of problems occurring during storage and cases of aflatoxin contamination

Comparative European Share of Imported Groundnuts





Year: 2007

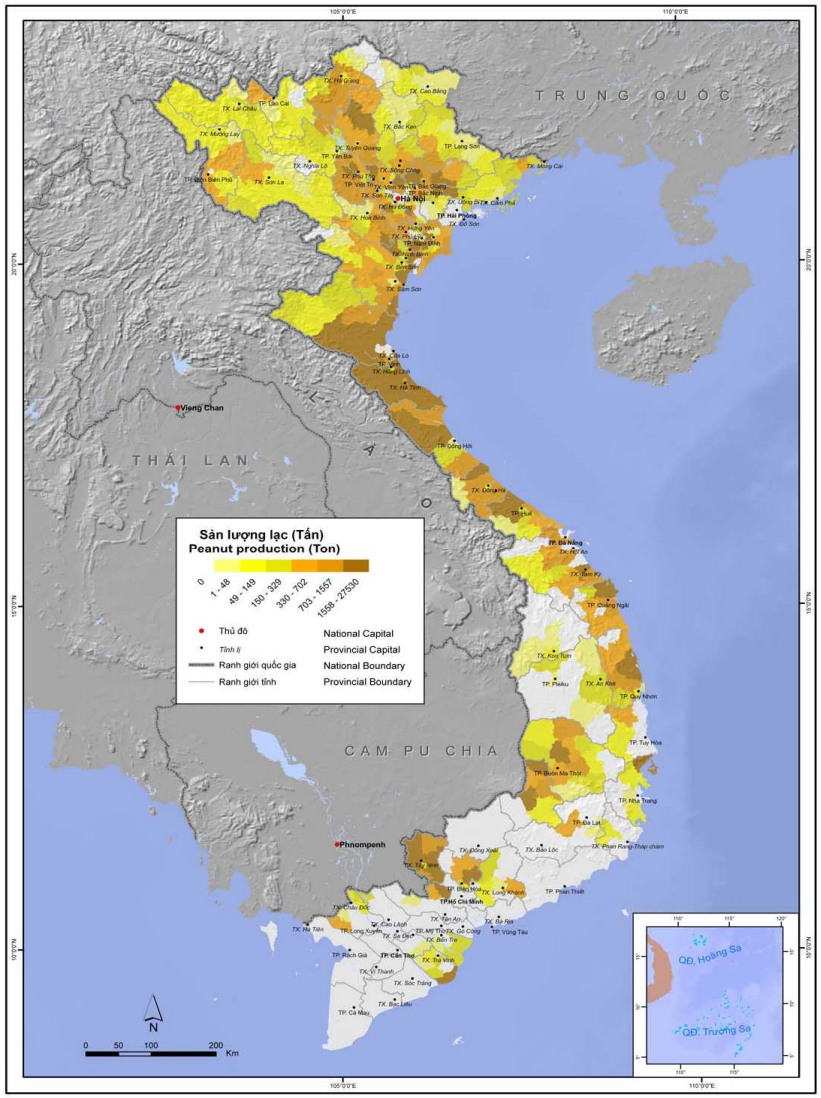
Source: APEDA.com

A. Groundnut industrial supply chain
   - Global production and export
   - **Vietnamese production and export**
   - Supply chain

B. Performance of Vietnam
   - Comparative costs of supply
   - Comparative quality of groundnut
   - Comparative price
   - Seasonality
   - Constrains for the future

C. Conclusion

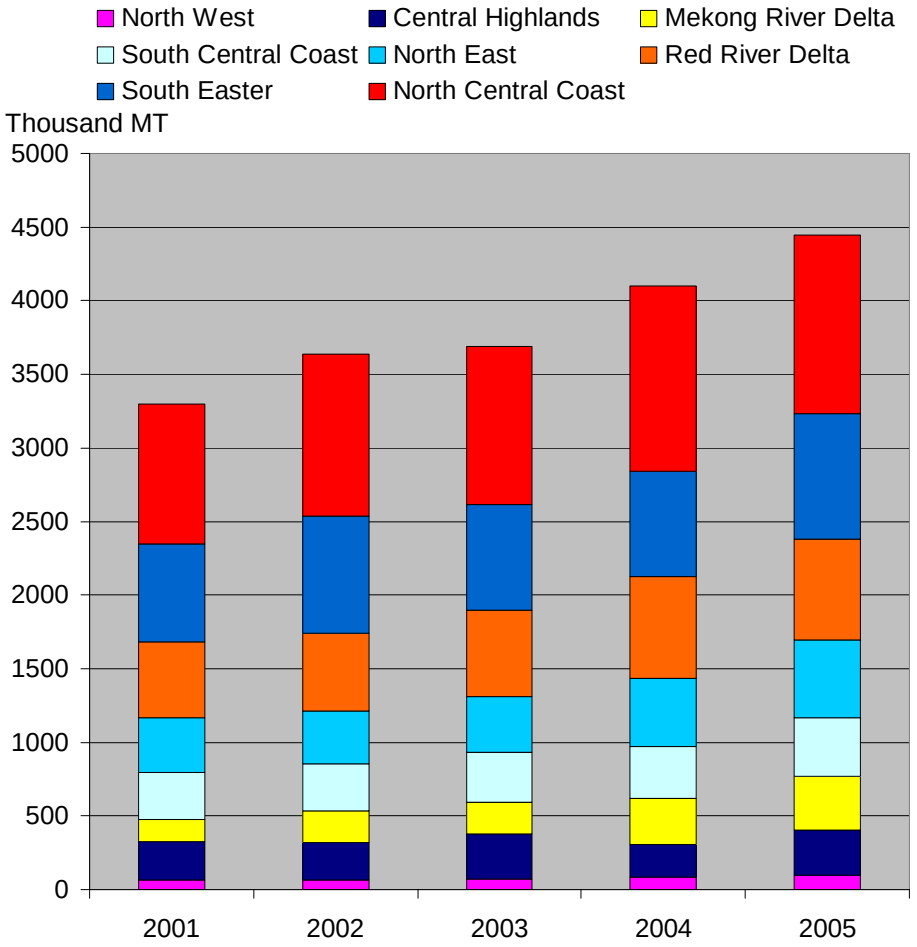
Groundnuts are well adapted to the light textured and less fertile soil in Vietnam and are widely cultivated in the country

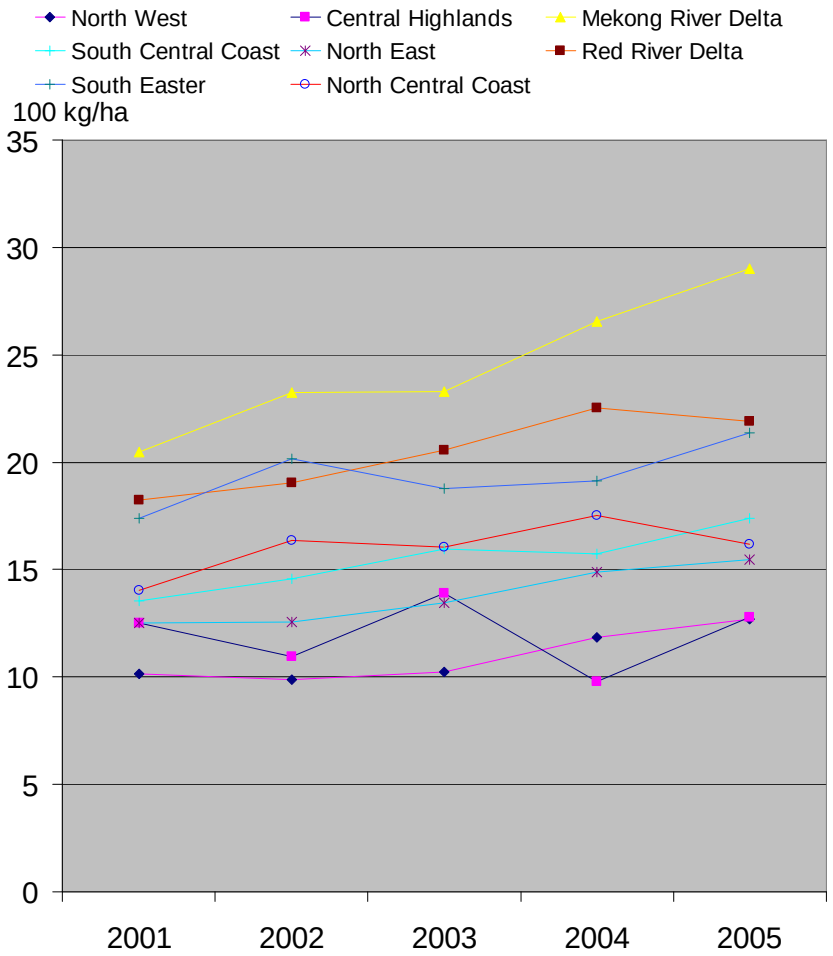


Source: Vietnam Agricultural Atlas 2004 (IPSARD)

- The climate of Vietnam varies from humid tropical in the southern parts to temperate in the northern highlands
- There are two monsoon seasons: the northeast winter monsoon and the southwestern summer monsoon. The rainy season begins in mid-May and ends in mid-September. The dry season lasts from mid-October to mid-March. Annual rainfall ranges from 1300 to 2300 mm, generally with even distribution throughout the rainy season
- The major groundnut producing provinces are Nghe An, Tay Ninh, and Long An. In the north of Vietnam, groundnuts are grown mostly in spring from **February to June.** In upland areas, they are cultivated in autumn (July to November), especially for seed production. In the south of Vietnam, they are grown mainly in the dry season (**November- March**). In the rainy season (June to September), they are intercropped with maize, mung bean, and bamboo

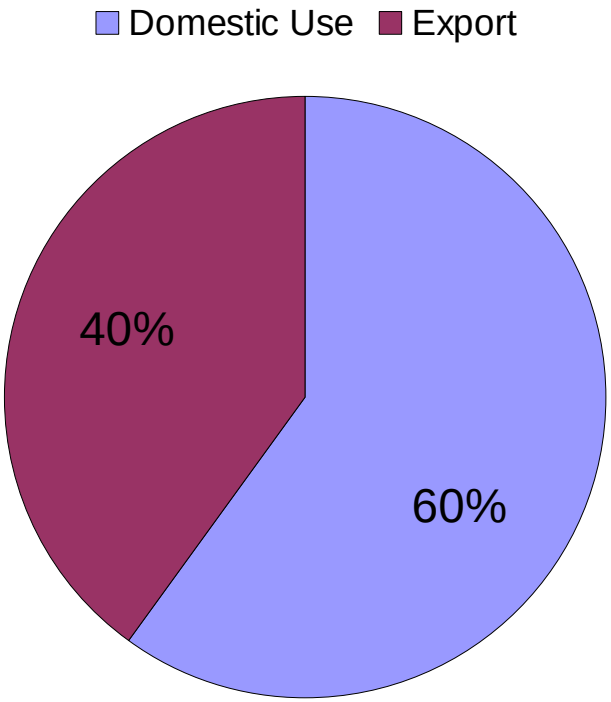
46% of groundnut planting is concentrated in the North Central coast and South Eastern areas, which are the origin of most of Vietnam's groundnut exports. However, recent growth has been fastest in the Mekong River Delta

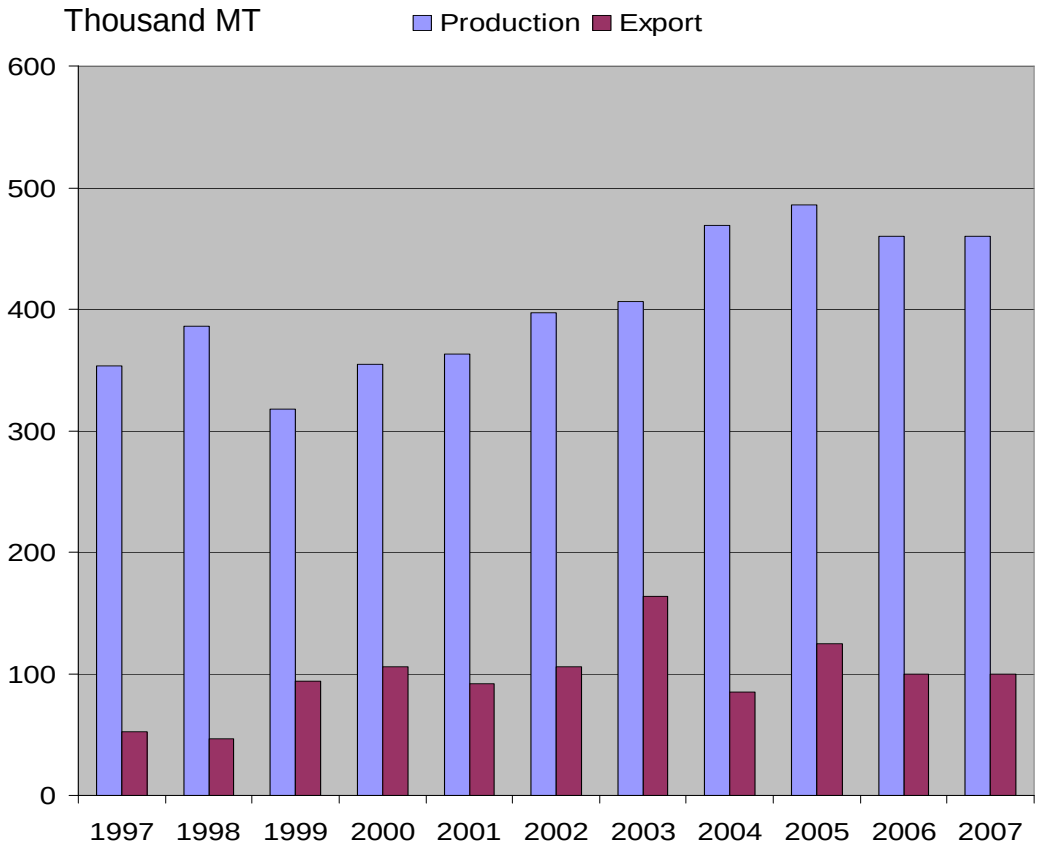




Source: MARD 2005

In Vietnam, about 40% of the production of groundnuts is for export

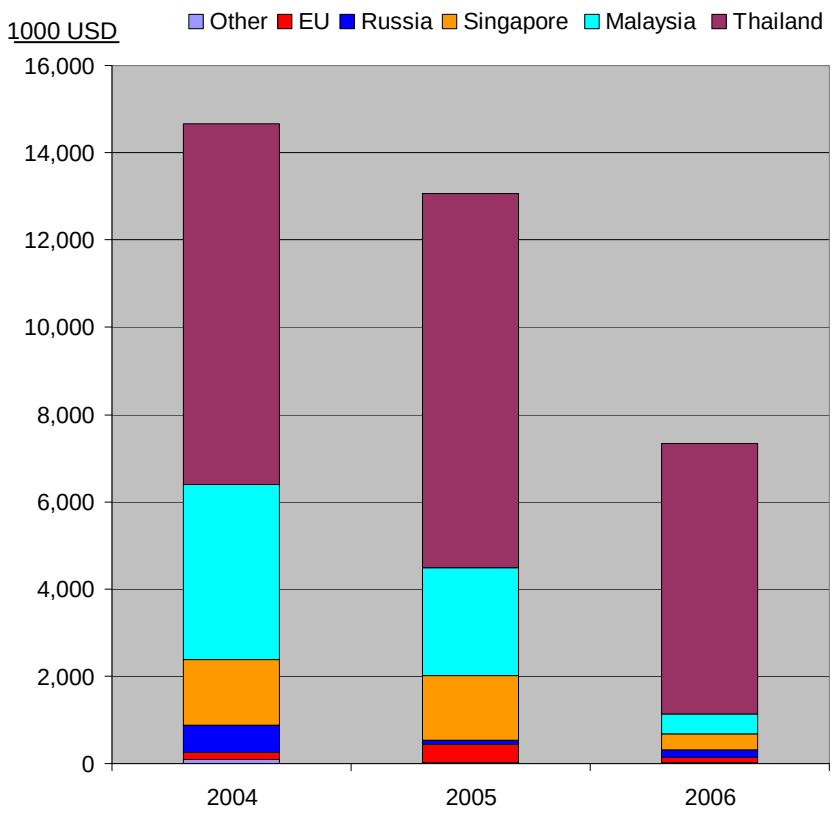




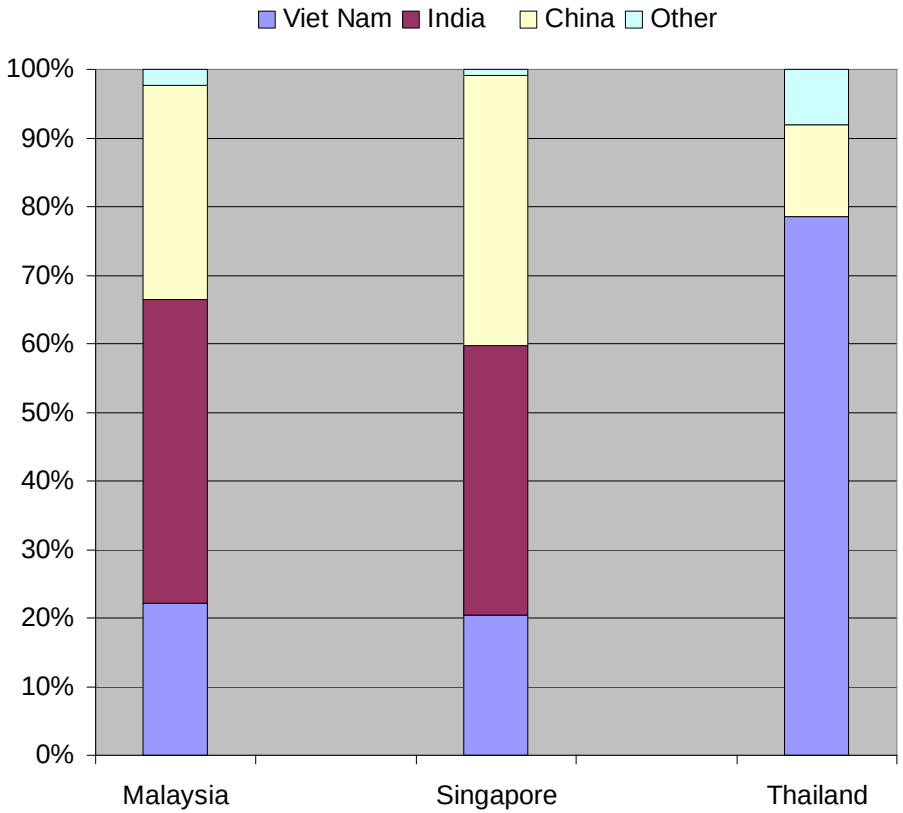
Source: USDA – Foreign Agricultural Service

ASEAN countries are major markets for Vietnamese groundnuts, and have been purchasing more than 88% of Vietnam's groundnut exports

Main Export Markets of Viet Nam



Shares of Viet Nam and other Countries in Key ASEAN Import Markets - 2006



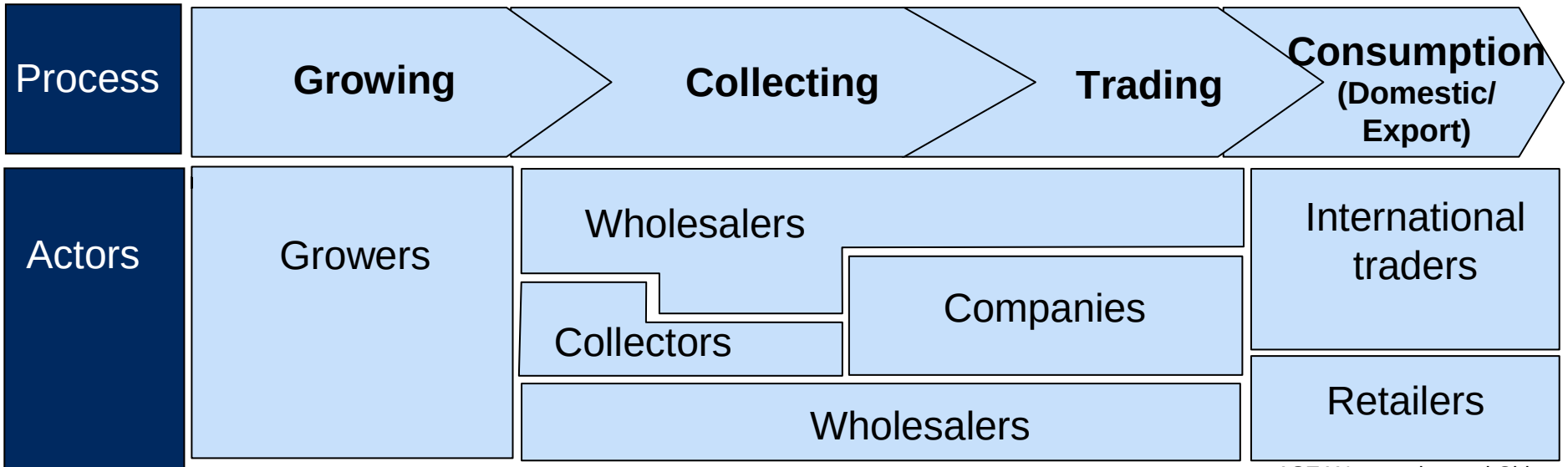
Source: APEDA.com – USDA Foreign Agricultural Service

A. Groundnut industrial supply chain
   - Global production and export
   - Vietnamese production and export
   - **Supply chain**

B. Performance of Vietnam
   - Comparative costs of supply
   - Comparative quality of groundnut
   - Comparative price
   - Seasonality
   - Constrains for the future

C. Conclusion

Vietnamese groundnut supply chain



- No large-scale groundnut production in Vietnam. Nearly all groundnut farmers grow on fields of only 500 – 1000 m2
- Mode of production is traditional (manual labor). Machinery is not still used to reduce production cost.
- After harvesting, groundnuts are dried under sunshine and sold to market. (Farmer sell both groundnuts with shell and shelled)

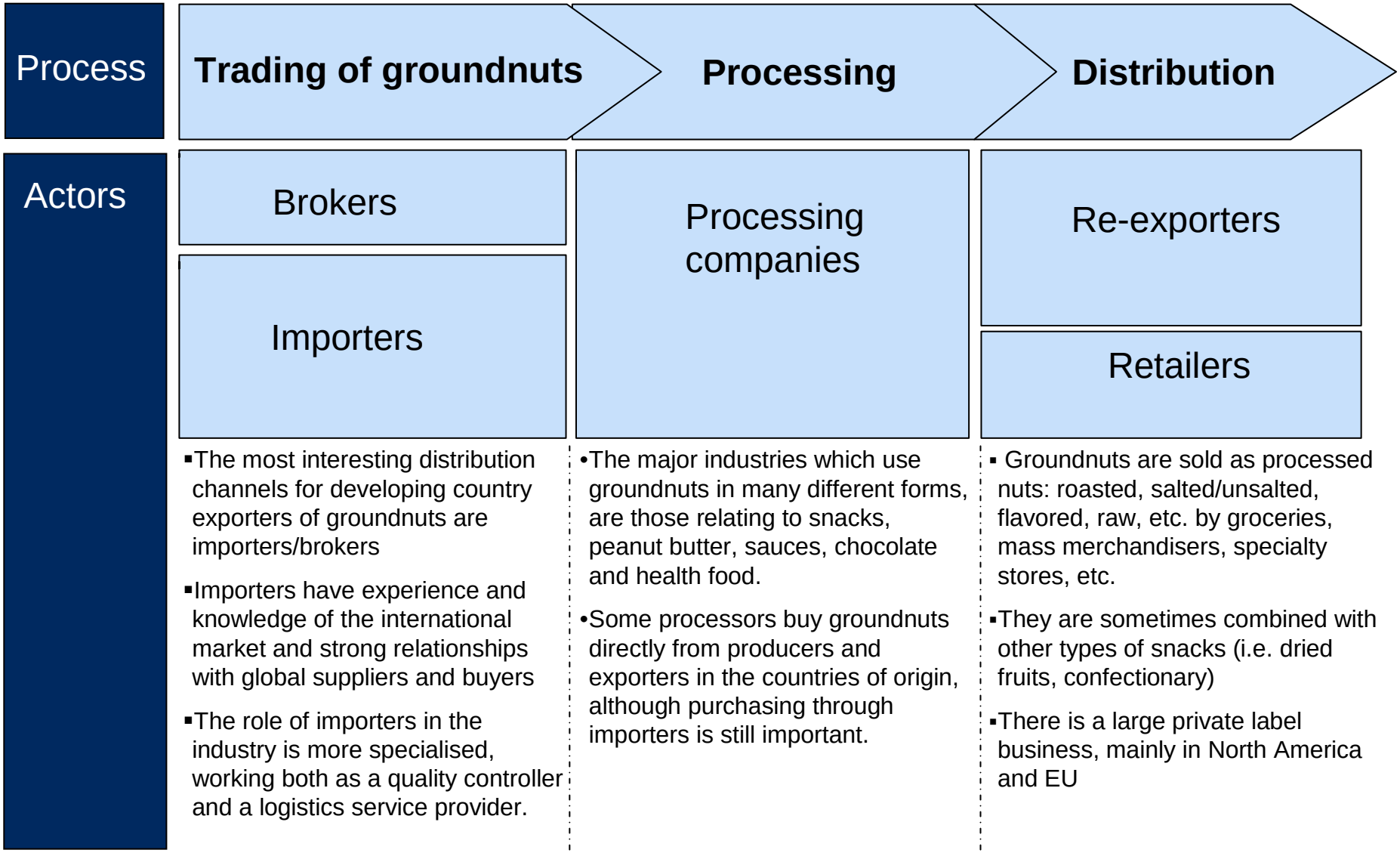
- Collecting groundnuts is a seasonal job. Most activity is concentrated for one month after harvesting and most collectors are also groundnut growers
- Wholesalers have the most power in the value chain. They have strong relationships with companies, other wholesalers, and collectors. Wholesalers buy groundnuts from collectors and growers both inside and outside their provinces
- After gathering, groundnuts are shelled and classified by wholesalers' machines

- Wholesalers supply groundnuts to companies, foreign traders and retailers
- There are no companies specializing in trading groundnuts; they trade many agricultural products, hence are not so focused on the groundnut market. Most groundnuts which companies collect are supplied by wholesalers
- Most groundnuts collected by companies are exported directly with only smaller volumes being processed, packed and distributed in the domestic market
- Some groundnut products processed in Vietnam are available but the volume is very limited and there are few companies involved in this.

- ASEAN countries and China are regular importers of groundnuts from Vietnam
- Most groundnuts are distributed for domestic consumptions by retailers in traditional markets.

Source: Team analysis

Foreign buyers' supply chain



Source: CBI market survey - 2007

A. Groundnut industrial supply chain
- Global production and export
- Vietnamese production and export
- Supply chain

B. Performance of Vietnam
- Comparative costs of supply
- Comparative price
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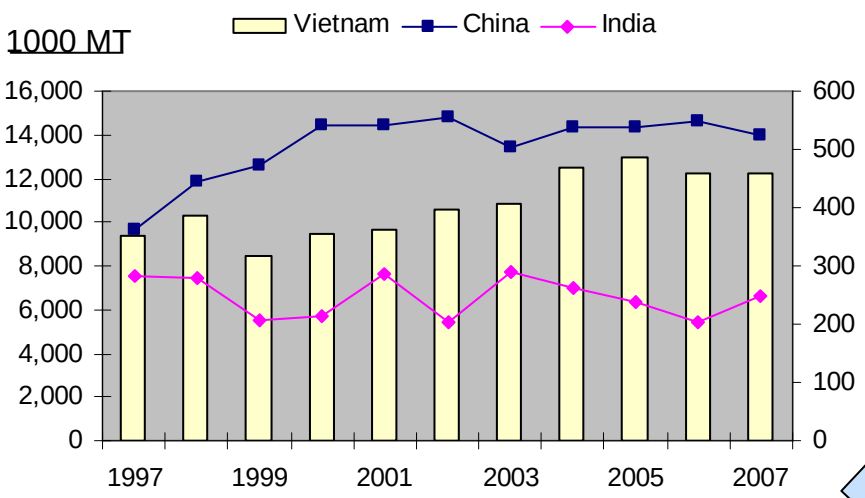
- Constrains for the future

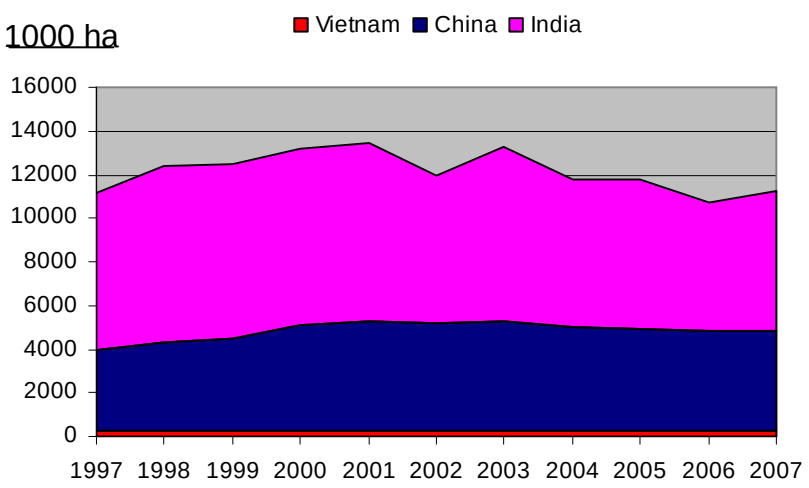
C. Conclusion

It is difficult for Vietnam to compete with China and India in its scale of production

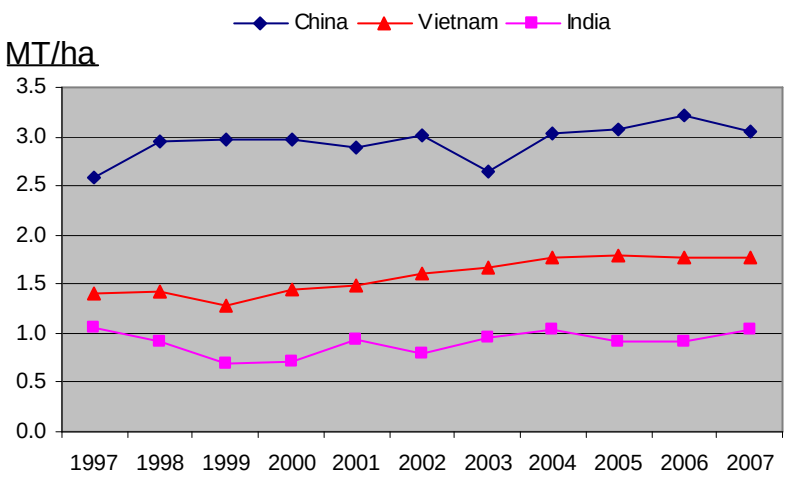
Total production



Groundnut area



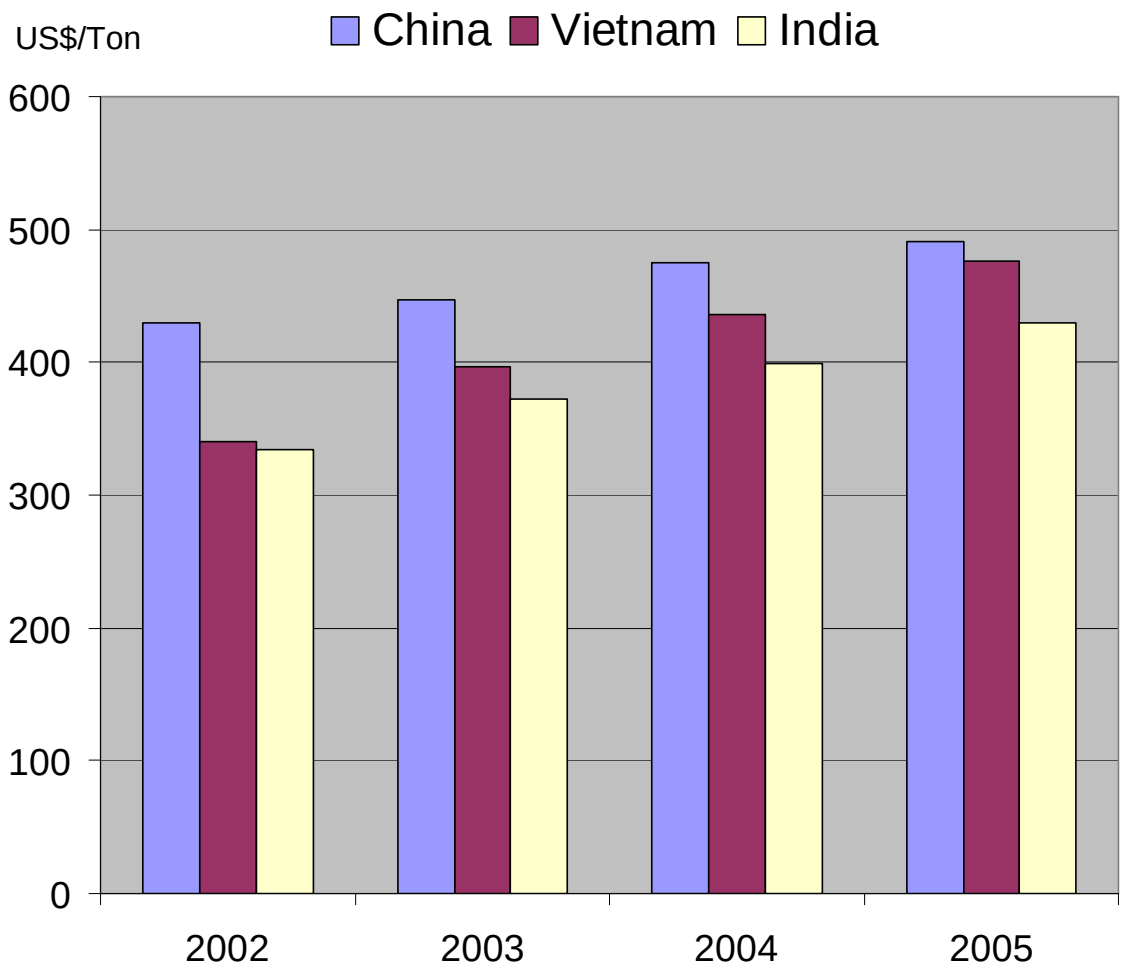
Groundnut productivity



- China and India not only have a larger scale of production, but also a much higher average area per household for planting groundnuts than Viet Nam. For example China's average household area ranges from 0.1 to 0.5 ha, while the average for Viet Nam is 0.05 to 0.1ha
- While Vietnam's productivity is only half that of China, it is much higher than that of India.

Sources: PS&D, USDA

A rough comparison of some available data on producer prices indicates that Vietnam has been able both to increase its price in recent years and close the gap with China's higher price



Source: FAO, Nghe An Statistics Bureau

The lack of cost data available during a short review makes it difficult to compare the costs of main producers, although one old study suggests that in the 1990s China could produce more efficiently than India

Item	China	India	Vietnam
Year	**1993**	**1993**	**2008**
Variable costs: (USD)			
Seed	114.90	119.52	)
Fertilizer	65.32	95.62	240.10
Chemicals	9.65	23.90	174.84
Labor	189.65	121.12	441.71
Other expenses	32.05	11.95	44.78
Total costs	**411.12**	**372.15**	**901.53**
Yield (Ton/ha)	2.4	1.27	2.4
Revenue (producer price* yield)	702.07	836.77	2,061.34
Profit			1,159.81

Notes: 1. Recent detailed cost data for China and India are unavailable
2. Separating individual cost components was not possible given the way groundnuts are cultivated

Sources: * College of Agricultural and Environmental Sciences – The University of Georgia – Ikisan (China and India)
Field Trip – Team analysis (Vietnam)

Groundnuts are widely cultivated in China, but the planting time is very concentrated in the months of April to May which might provide an opportunity to address demand that China's own production cannot meet

	Mean temperature (°C)	Precipitation (mm)	Soil	Planting time
Standard	15 - 35°C	600 - 1500 mm	Light, sandy loam soils	
CHINA				
North large groundnut	11 - 14°C	450 – 900 mm	Arenaceous soil eroded from granite or shale and alluvial sands	Late April to early May
South spring and autumn groundnut	20 – 25°C	1500 – 2000 mm	Alluvial sands – coastal hilly areas soil is relatively less fertile.	Spring: Feb-March, fall: July-Aug
Yangtze spring and summer groundnut	15 – 19°C	800 – 1800 mm	Red soil, brown soil and sandy soil	Spring: April-May, Summer: May-June
Yungui plateau groundnut	15 – 20°C	900 – 2000 mm	Red, brown and sandy	March – April
Northeast early groundnut	2 – 7°C	450 – 700 mm	Sandy and black	May
Loess groundnut	7 – 10°C	300 – 550 mm	Eroded loose sandy	April – May
Northwest inland groundnut	3.5 – 14°C	50 – 100 mm		May

Source: University of Georgia

Since about 75 percent of the groundnut area lies in a low to moderate rainfall zone with a short period of distribution, India has less advantage than Vietnam in growing groundnuts

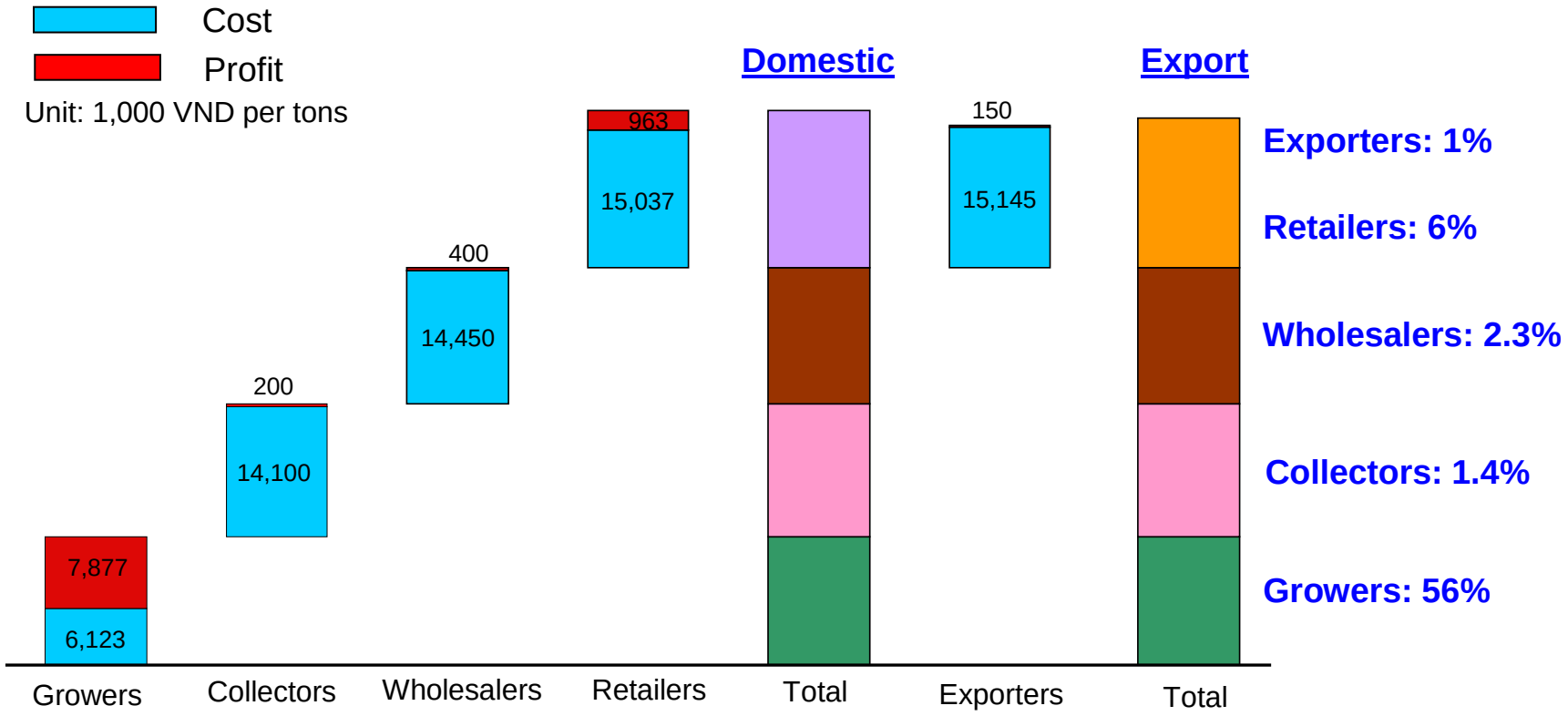
	Mean temperature (°C)	Precipitation (mm)	Soil	Planting time
VIET NAM				
North Central Coast	25.2°C	1670 mm	----------	February and July
South Eastern	26 – 27°C	1400 – 2000 mm	----------	June and November
INDIA				
Northern zone	----------	600 – 900 mm	Sandy loam to loamy sandy soil	Second week of June and the first week of July
Western zone	----------	500 – 700 mm	Medium black soil/ sandy loam	15 of June to the first week of July
Central zone	----------	700 – 900 mm	Medium black soil/ sandy loam	First of June and the last week of July
South Eastern zone		900 – 1300 mm	Red loam – sandy loam	First of June and the last week of July
Peninsular/Southern zone		600 – 1300 mm	Medium black to red loam	Between June and July

Source: University of Georgia

4. Impact

- **Economic impacts**
  - **Distributions**
  - **Benchmarking costs & benefits to other crops**
- **Environmental and social impacts**

Profit represents around 60% of the final retail price of groundnuts in a sample province (Nghe An) of Viet Nam, with growers taking some 83% of the profit

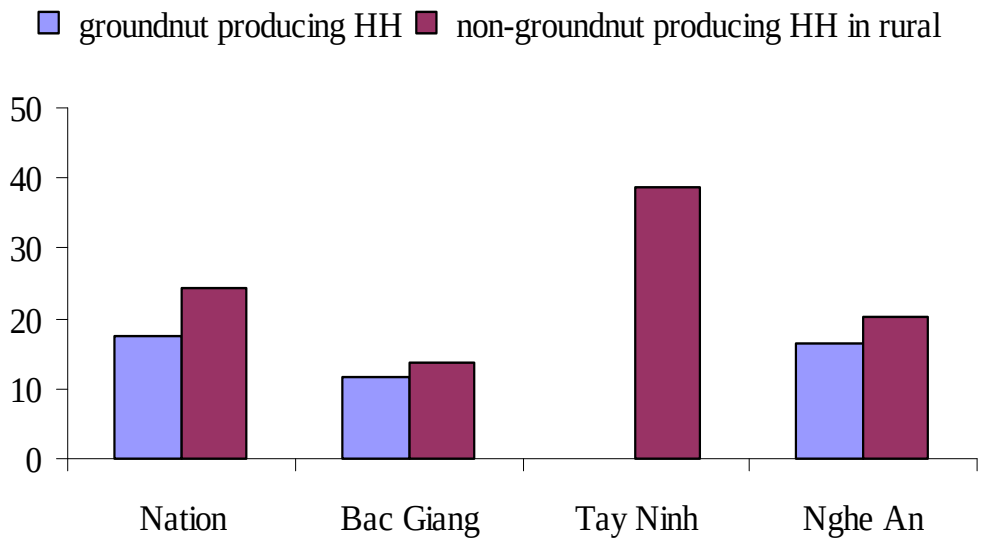


- The export price is currently lower than the retail price. However companies are still interested in exporting for several reasons: domestic demand is limited, the cost of retailing in domestic markets is very high, and they can take full advantage of facilities (including agents) when trading other agricultural products
- The price for growers is decided by the export price, including unofficial exports (trading with China)

Source: Data from interviews during field trip in Nghe An Province in May 2008

There is a lower proportion of poor households among those growing groundnuts than among non-groundnut growing households

% Poor HH among Groundnut and Non-groundnut producing HH



Total income (VND/ha)	2,265,600
Pro-poor income (VND/ha)	19,165
Employment creation (FTE/ha)	0.5 (175 days/ha)

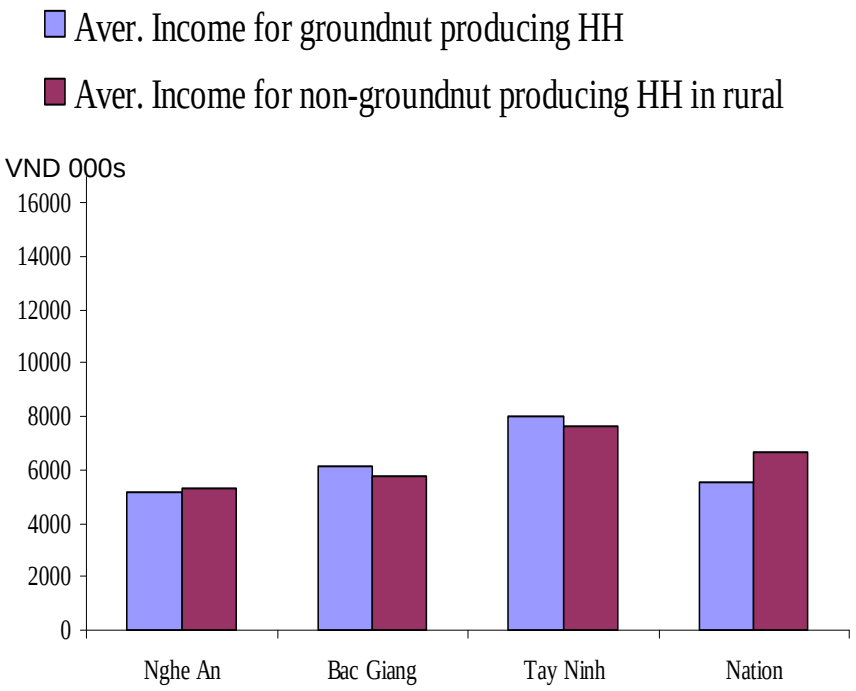
- Poor households are those households with a monthly income per capita of below 200,000 VND, according to the national standard poverty line for 2005-2010*
- Among groundnut-producing households, poorer households have smaller groundnut-producing areas than non-poor households, and the average area declines in line with income in both groups
- Job creation in the groundnut industry is currently very limited, and mainly occurs in the harvesting stage because processing is still under-developed in Vietnam.

* This study was completed before the change in MOLISA's definition of the poverty line in July 2008

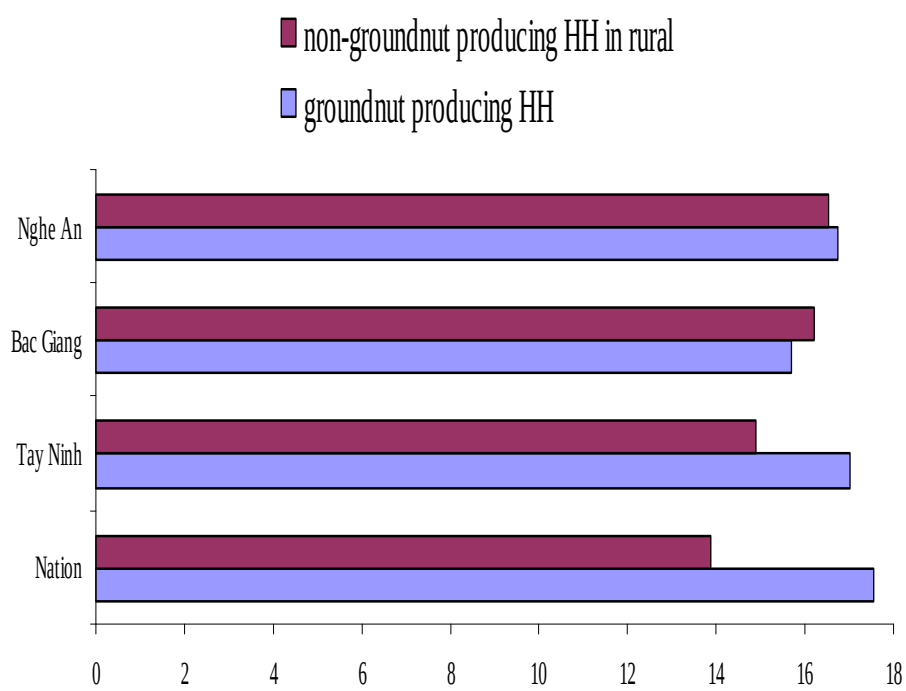
Sources: Calculated using data from VHLSS, www.gso.gov.vn, and field trip in Nghe An Province

A limited sample indicates that in general households producing groundnuts in Vietnam have a lower income than other households, but that their income is growing faster

Average per capita Household Income in 2006



CAGR 2002-2006



- In Nghe An Province, groundnut-producing households have a lower income per capita than non- groundnut-producing households in rural areas. This is the reverse of the situation in Tay Ninh and Bac Giang provinces, although the difference between them is not high
- However, groundnut-producing households have a higher growth rate of income than non-groundnut- producing households, so the former have been catching up with the latter
- It should be noted that these data are very partial and selective, and a more detailed study covering both groundnuts and other crops would be required in order to draw any definitive conclusions about groundnut farmers' incomes

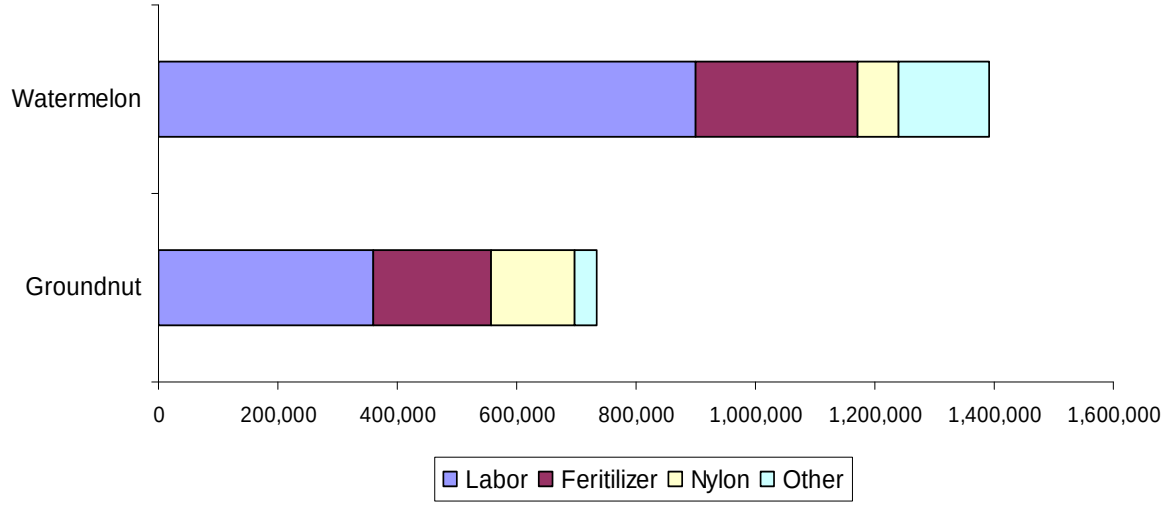
Sources: Calculated using data from VHLSS, www.gso.gov.vn, and field trip in Nghe An Province

4. Impact

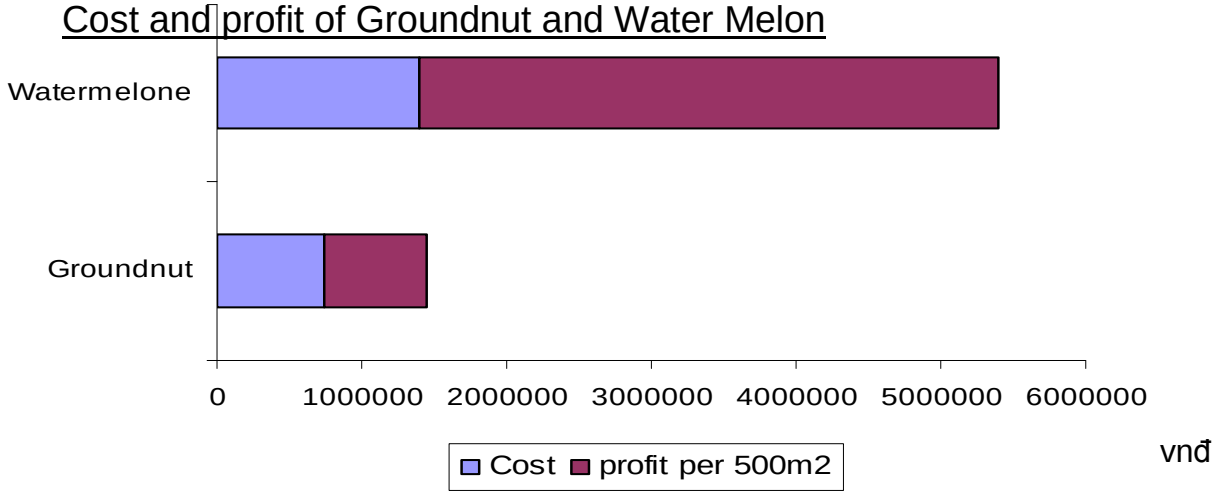
- Economic impacts
  - Distributions
  - Benchmarking costs & benefits to other crops
- Environmental and social impacts

In Nghe An, groundnuts are produced more cheaply than some other competing fruits and vegetables, but profitability is often lower

Cost production of Groundnut and Water Melon



Cost and profit of Groundnut and Water Melon



- Some farmers in Dien Chau District of Nghe An Province (which has the highest productivity in Vietnam) try to plant water melon or potatoes to replace groundnuts
- Compared with groundnuts, water melon can be much more profitable
- However, the demand for water melon is not stable poses a higher risk than groundnuts because groundnut can be stored for longer than water melon or vegetables and requires lower investment

Source: Data from interviews during field trip in Nghe An Province in May 2008

4. Impact

- Economic impacts
  - Distributions
  - Benchmarking costs & benefits to other crops
- Environmental and social impacts

In general, groundnut production is environmentally friendly, so long as farmers control yield-increasing processes. However, their susceptibility to disease can pose dangers to human health in the absence of careful control

No waste

- All parts of the groundnut can be used for human and livestock consumption; for example, nuts are used as food for people or animals; the pods, leaves and roots are used for animal feed.

Health effects

- Groundnut pods are highly susceptible to aflatoxin contamination due to the soil-borne nature of the fungi. Studies have shown that about 20 to 25% of the groundnuts produced in Asia and Sub-Saharan Africa contains aflatoxin in excess of statutory limits, thereby exposing people to uncontrolled amounts of aflatoxin.
- Aflatoxin may enter the food chain directly, by consuming groundnuts, or indirectly, for example in milk from animals that consume groundnut haulms. Studies in West Africa and elsewhere have shown strong links between aflatoxin levels and bad health in humans, especially children.*

Rubbish

- Generally, groundnut production does not harm the environment. However, farmers sometimes use nylon in the growing process to increase yield, and this has the potential for some negative environmental impact

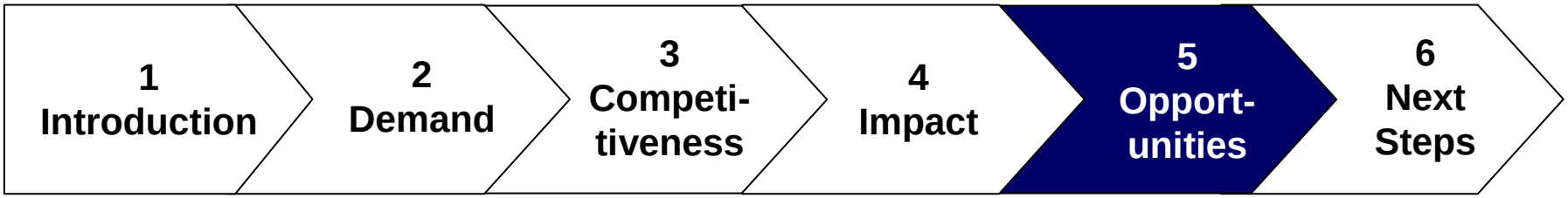
* Source: Williams, J.H., et al (2004) *Human aflatoxicosis in developing countries: a review of toxicology, exposure, potential health consequences, and interventions*. American Journal of Clinical Nutrition 80

The increased use of machinery is reducing the number of jobs in the groundnut industry in Vietnam

- Recently, job creation in the groundnut industry in Vietnam has become more limited because of the development and deployment of many types of labour-saving machinery such as sorting and shelling machines
- Most workers in the groundnut industry are unskilled and poor labourers of both genders. Women are mostly involved in cultivating and in parts of sorting, while men are involved in collecting, loading and transporting activities.

Source: Team analysis

Contents



A quick SWOT analysis of the groundnut sector in Vietnam indicates potential opportunities despite a shifting market

Strengths

- Groundnuts can be grown throughout the country, thus increasing the stability of supply
- Groundnuts are cultivated in order to improve soil fertility and to provide additional income to farmers
- Machinery is increasingly used for some tasks (e.g. cultivation and shelling) thus increasing efficiency

–Weaknesses

–Production depends on weather so the yield varies according to weather patterns
–Lack of research and control of distribution for different varieties of groundnuts
–The scale and structure of groundnut growing is currently small and scattered
–Technology for storing, transporting and processing is simple and deficient
–Insufficient local capability to test for Aflatoxin

Opportunities

- In the light of current market trends and Vietnam's historical links, there may be a potential market in Russia
- Although China is also a competitor, in recent years it has been importing large volumes of groundnuts from Vietnam in recent years. This merits further investigation, but may indicate significant market potential in the future
- Establishment/growth of Vietnamese brands

Threats

- Groundnuts have been steadily substituted by soybeans for oil and meal purposes so supply may exceed demand if the groundnuts currently used for crushing are shifted to edible uses
- India, which has new varieties, is becoming a big competitor of Vietnam in traditional markets, such as Thailand and Malaysia

Source: Team analysis

Viet Nam will need to take a range of actions to improve the competitiveness of its edible groundnut sector in different markets

	Advantage	Disadvantage	Factors required to be competitive	Implications for Viet Nam
Global	• Recent high growth in world groundnut imports	• High regulatory requirements arising from concern about Aflatoxin • There are many substitutes for groundnuts	• Diversified products • Development of processed products • Building brands/trademarks	• Must invest in the technology required for post harvest and storage • Need for clear brand building and product differentiation
Region	• High demand for groundnuts in ASEAN countries • Geographical advantage for Vietnam in selling to other ASEAN countries	• There is strong competition from India and China • China is the major producing and exporting country in the world • There are many substitutes for groundnuts	• High productivity • Diversified products	• Need to focus on new varieties • Must apply new processing methods
Local	• Groundnuts are consumed in many different forms, e.g. roasted or boiled • There is already some processing of groundnuts taking place in Viet Nam	• The revenue from groundnuts is still low • Groundnuts can only be kept in their best condition for a relatively short time	• Diversified products	• Need to apply new processing methods • Better quality and storage required

Sources: Team analysis

The example of one company shows that there may be an opportunity for Vietnam to extend its groundnut-processing industries in the future

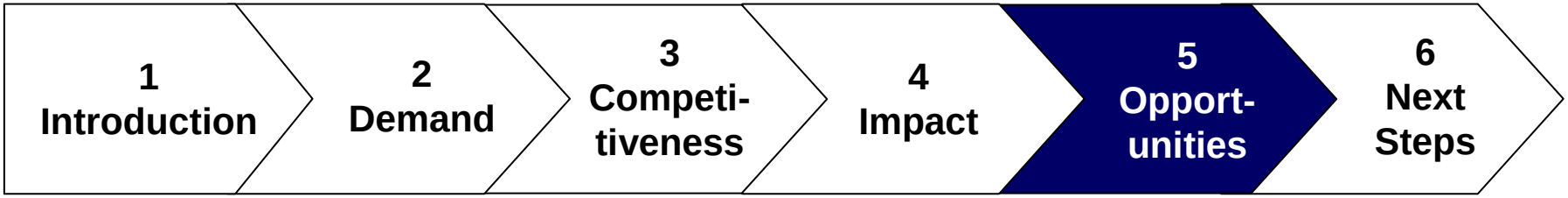
Brief Case Study of Tan Tan Company

- ✓ Tan Tan Company was set up 10 years ago and its products have now become well recognized in the domestic market. Tan Tan's products have already been distributed in more than 40.000 supermarkets and retail outlets
- ✓ Tan Tan has also been investing and contacting with farmers to produce safe groundnuts
- ✓ Tan Tan's has been exporting its products to more than 20 other countries, including the USA, Japan, and Russia
- ✓ Tan Tan has already invested US $10 million to import an Italian production line
- ✓ The Company intends in future to research and develop nutrition products, following its perception of the requirements of the market

Example of products processed by Tan Tan Company

Source: vnexpress.net

Contents



A. Opportunities for edible groundnuts

B. Conclusion

Conclusion on the demand for groundnuts

- Groundnuts are one of the principal oilseeds in the world. In terms of consumption, while groundnuts have been steadily substituted by soybeans for oil and meal purposes, their utilization for food purposes has been increasing and global consumption of edible nuts increased 1.5 times between 1997 and 2007, from 10.6 to 15 million metric tons (a compound annual growth rate of 3.54%)

- The world traded markets for groundnuts may be considered a residual market, in the sense that only a small proportion of world production is devoted to export and imports and most of the production is consumed domestically. The share of world groundnut trade has historically been around 7 percent. Strict quality regulations imposed by many developed countries have contributed to a severe decline in international groundnut trade, and exports have fallen sharply in many developing countries.

- The main factors affecting groundnut consumption are substitute products, consumer preferences, quality requirements, and cultural factors. However, two specific factors affecting the future of groundnuts in the world market are consumer concerns for nutritious foods and stricter import standards for food safety and quality.

Conclusion on the competitiveness of groundnuts

- Groundnuts can be cultivated across the entire country of Viet Nam. They are able to compete with some other crops in view of preferences, value per unit, and income yield. While the market is still developing in the North central coast and South eastern regions, overall the market demand in Vietnam is relatively stable

- The factors affecting the competitiveness of internationally tradable groundnuts are quality, price and seasonality. Viet Nam has no competitive advantage in groundnut exports because of its high price and the problem that quality of the product often decreases during transport because of the time taken

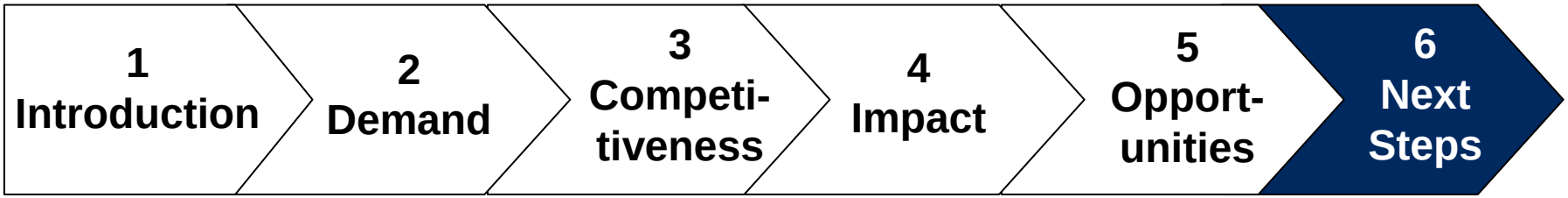
- The differences in seasonality between harvesting times in China and India constitutes a potential opportunity for Vietnam.

- Vietnam also has a potential advantage in selling to its fellow ASEAN countries, including . Thailand, Indonesia, the Philippines and Malaysia.

Conclusion on the pro-poor impact of groundnuts

- ✓Groundnuts cannot be considered a high income crop compared to some of the alternatives, but in some situations it can be seen as a tree for the poor in the sense that groundnuts can be grown in sandy soil regions where other crops cannot grow or require greater investment. Moreover, the demand for groundnuts is stable and low risk
- ✓The creation of jobs in the groundnut industry is limited because of the increasing use of many type of machines to cover labour-intensive work. Women have a major involvement in the groundnut supply chain, especially in sorting and trading work
- ✓Groundnut production is environmentally friendly. All parts of the groundnut can be used for humans and livestock
- ✓However, farmers use nylon in the growing process to increase yield, and this has a potentially negative environmental impact.

Chapter 6 – Next steps



- Potential next steps
- Conclusions and recommendations for CAP-PI in the groundnut sector
- Lessons learned during this review

There are four main options covering potential next steps for the groundnut sectors being reviewed by CAP and PI

Potential Next Step	Associated Action	Decision Criteria
Further review/ Feasibility	• If the product/sector appears to offer strong potential for CAP and PI, a more in-depth feasibility study should be undertaken	• Clear pro-poor potential, e.g. a "significant" portion of the value accrues to poorer people Scale opportunity, e.g. at least 20,000 people likely to benefit from developing the product/sector Clear link to skills/networks of PI
Discussion with other NGOs	• If the product/sector does not meet CAP-PI's criteria for further action but might be of interest to another NGO, then the report can be sent to, and discussions initiated with, other NGO(s)	• Limited scale opportunity, but sufficient evidence of pro-poor impact (e.g. some value for poorer people) to be of interest to an NGO Knowledge of NGO(s) who might be interested in the product/sector to support or extend existing activities in relevant sector or location
Discussion with private sector	• If the product/sector does not meet CAP-PI's criteria for further action but might be of commercial relevance, then the report can be sent to, and discussions initiated with, commercial companies with minimal further involvement from PI	• Some evidence of commercial opportunity but requires investment or commercial expertise not available to PI or NGO sector May or may not have significant pro-poor impact No clear link to skills/networks of PI
No further action	• If the product/sector is unlikely to be of interest to either CAP-PI, other NGOs or the private sector then no further action should be taken apart from possibly posting the report on PI's website	• Not promising: very limited pro-poor impact, scale opportunity or commercial potential

On the basis of the evidence collected to date, there appears to be only a limited case for CAP-PI to take further action in the groundnut sector at this stage

Further review/ Feasibility	• Global demand for groundnuts has been increasing steadily in recent years, although this demand is largely for processed groundnuts. The processing industry in Vietnam is currently relatively small and it remains unclear whether Vietnam has any competitive advantage in this area • In comparison with some other crops, groundnuts appear to have only a slight pro-poor impact
Discussion with other NGOs	• While groundnuts may not have a particularly strong pro-poor impact, their cultivation brings a stable income for farmers, especially in coastal regions. So the sector may be of interest to an NGO • More specific data would need to be collected to prove this case, such as on the cost of production for both raw and processed groundnuts
Discussion with private sector	• Some Vietnamese companies may be interested in in expanding the production of groundnuts as a source of raw materials , although the competitiveness of Vietnamese companies is unclear and the potential pro-poor implications would need to be explored further