MARKET SECTOR ASSESSMENT

IN HORTICULTURE - Presentation



PHASE 1
MARKET RESEARCH
Identification of business opportunities

A STUDY FOR MINISTRY OF COMMERCE AND UNDP
June 2004

altai consulting
Esmat Muslim Street, Shahr-e-Now
Kabul, Afghanistan
info@altaiconsulting.com
Tel: + 93 (0) 79 888 000/+ 93 (0) 79 888 111

UNDP

Agenda

Project Presentation

Global Market

Production and Marketing in Afghanistan

Short-Listing of Opportunities

Next Phase

Project presentation

Objectives

Promote horticulture development through business opportunities for the private sector

Why is horticulture a key sector to promote in Afghanistan?

- Agriculture and forestry represent 53% of the GDP
- Afghanistan is a ***chronic food deficit*** country – lack of land and irrigation water (in 2003 record year: 2.45 million ha irrigated* = 1100 m2/inhabitant)
- ***600,000 Afghan farmers*** are cultivating horticulture crops*
- High value ***horticulture products give a better return*** to farmers than staple crops
- Climate suitable for ***high quality fruits and vegetables***
- Afghanistan is the center of origin of various horticulture species (pistachio, walnut and pomegranate)
- Some ***fruit varieties*** have international interest for their quality (pomegranates, apricots, almonds, raisins)

(*) Source: Various FAO agriculture surveys conducted in 2003.
www.fao.org/world/afghanistan

Project presentation

Phase 1

Market research

- Supply & Demand analysis for horticulture products
- Short-list of promising opportunities

Phase 2

Field feasibility study

Phase 3

Implementation and business plans

Phase 4

Sourcing of stakeholders

IMPLEMENTATION

Project presentation

Sources of information

Information research were made both from existing literature and on the field with 5 teams investigating in main provinces of Afghanistan and abroad

REVIEW OF LITERATURE

- FAO, AREU, ICARDA, UC DAVIS, DAI, WORLD BANK, UNODC, UNDP, UCTAD
- CTIFL, CPI, USDA, AC NIELSEN, REUTER
- MADERA, GRET
- UNIVERSITY OF GENEVA
- POLYTECHNIC OF LILLE

ANALYSIS OF SURVEY DATABASE

- FAO, Agriculture Survey, 2003

ONE TO ONE INTERVIEWS

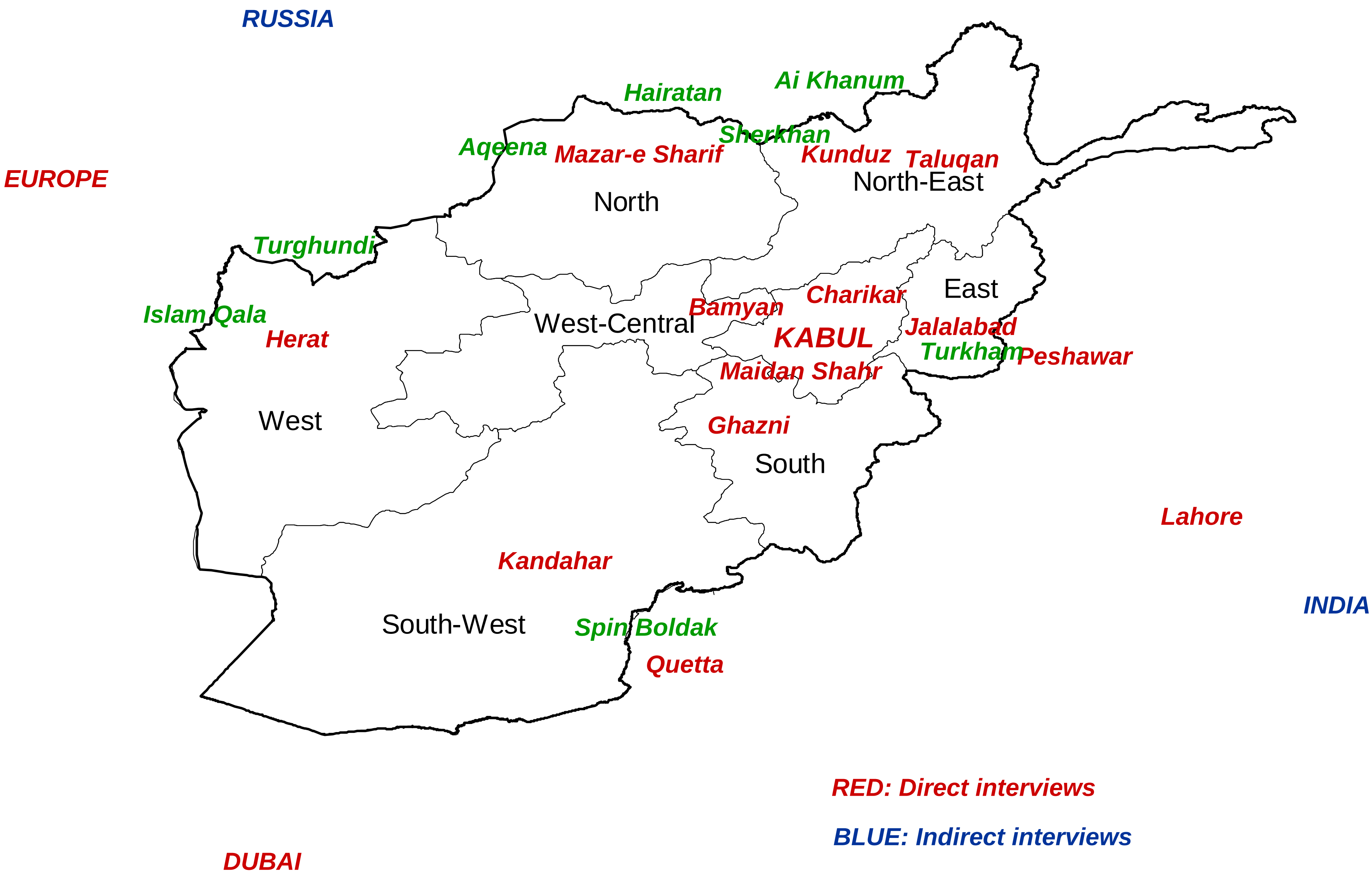
- Government Institutions and International Organizations in Afghanistan
- Custom officers at border points
- Traders, Factories, Wholesalers, Middlemen, Retailers and Farmers in Afghanistan
- Buyers in Dubai and Europe
- Indirect interviews in Russia and India

CONSTRAINTS

- Difficulties to obtain reliable data (production, market, import/export): production and trade in Afghanistan are not monitored
- Logistic and security constraints to travel to border points in Afghanistan

Project presentation

Geographical coverage of interviews



RED: Direct interviews

BLUE: Indirect interviews

GREEN: Border Custom Office interviews

Project presentation
Interviews of international players

Key actors across all levels have been consulted through one to one interviews.

INSTITUTIONS

COLEACP – EUROPE
Catherine Guichard, *General Secretary*
MAX HAVELAAR – EUROPE
Karine Laroche, *New business director*
RAC (Recherche Agronomique de Changins) – EUROPE
Philippe Money, *Horticulturist*

FRESH FRUITS TRADERS

RJA FOODS – UK
Adam Pritchard, *Managing Director*
POMONA – FRANCE
Stephane Aubert, *Purchasing Director*
KIBSONS INTERNATIONAL – INDIA
Husainy Sharbat, *CEO*
SWORLD – FRANCE
Eric Bommenel, *CEO*

DRIED FRUITS TRADERS

ABDEL KHOSH – IRAN
Abdel Khosh, *President*
CANASIA – CANADA
H.J Wais, *President*
GLOREX – DUBAI
Ramesh. D. Jatwani, *Managing Director*
HUSSAIN ALI KIKHA & SONS CO – DUBAI
Asadulla Kikha, *Chairman*
VOICEVAL – EUROPE
Alexis Sumar, *CEO France*

FOOD TRANSFORMATION

LEADING AGRIBUSINESS GROUP – FRANCE
Purchasing Manager (Confidential Agreement)
ALTER ECO – FRANCE
Tristan Leconte, *CEO*
INTERNATIONAL FOODSTUFFS – UAE
Olivier D'souza, *Sales Manager*
MITCHELL'S FRUITS FARMS – PAKISTAN
Tariq Mahmood, *Commercial Manager*
QARSHI INDUSTRIES – PAKISTAN
Dr Fahim Qureshi, *Marketing Director*
SHEZAN INTERNATIONAL – PAKISTAN
Saifi Chaudhry, *Chief Executive*

Project presentation

Interviews of national players

One to one interviews were conducted with all kinds of actors of the value chain

INSTITUTIONS

- MINISTRY OF COMMERCE
- MINISTRY OF FINANCE
- MINISTRY OF AGRICULTURE
- MINISTRY OF RURAL REHABILITATION DEVELOPMENT
- RAMP – CHEMONICS
- CHAMBERS OF COMMERCE
- ACTED – AICC – AISA – AREU
- ERO – FAO – IF HOPE
- MADERA – MERCY CORPS - ROOTS FOR PEACE
- WFP - USAID

MARKETS

- HERAT
- JALALABAD
- KABUL
- KANDAHAR
- MAZAR-E-SHARIF
- KUNDUZ
- CHARIKAR
- MAIDAN-SHAR

- QUETTA
- PESHAWAR
- DUBAI

TRANSPORTERS

- ABDUL SABOOR
- AES CARGO
- ARIANA
- AZAL
- BAKHTAR SPEEDY
- CHAHAR YAR
- DHL
- GHARIB ABAD
- POST
- QADERI GROUP
- SAIGHAN
- TAHIM SAHIB
- AHMAD ZAI

AFGHAN EXPORTERS

- CROSSING POINT
- HAJI KHAN SHEREEN
- HASEEB FAYCAL
- HILOUD
- ISMAIL ZADE
- MOHAMMAD HAKIM
- MUJADIDY GROUP
- YOUNG GROUP
- SAFITEX
- SANJAR SOHEIL
- SINA
- ZIA, Etc..

FOOD TRANSFORMATION

- AMIR FACTORY
- CADG
- OLIVE OIL FACTORY (MAAH)
- NAJIB ZARAB
- NAWAI
- RAHMAT FRUIT PROCESSING CORP
- SHAHRAM
- WAHDAT
- NAZIF

IMPORTERS

- AHMAD SHAH & AHMAD KHAR
- AZIZ JAMIL
- EZAT- E- AFGHAN
- HAJI AKHTAR
- ITFAQ DASTAGEER ZADEN
- MIRWAIS
- MOHAMMAD AKBAR
- MOHAMMAD YOUSSOUF
- MONAWAR
- NOORDIN ZADA
- QALA E NAWI
- RASUL FAIZE
- SABOOR SAMIR
- SAMI ALI MAMINI
- SHARIF HASSAN
- WAHEED JAN
- ZIA MEHRE
- Etc…

Agenda

Project Presentation

Global Market

Production and Marketing in Afghanistan

Short-Listing of Opportunities

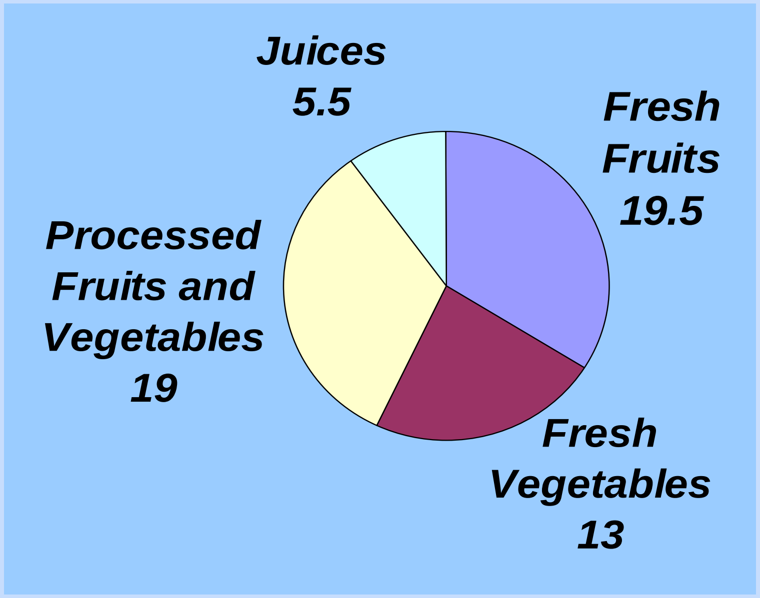
Next Phase

Global Market

World trade – Fruits and vegetables

World trade value of horticulture products by category

in billion US$



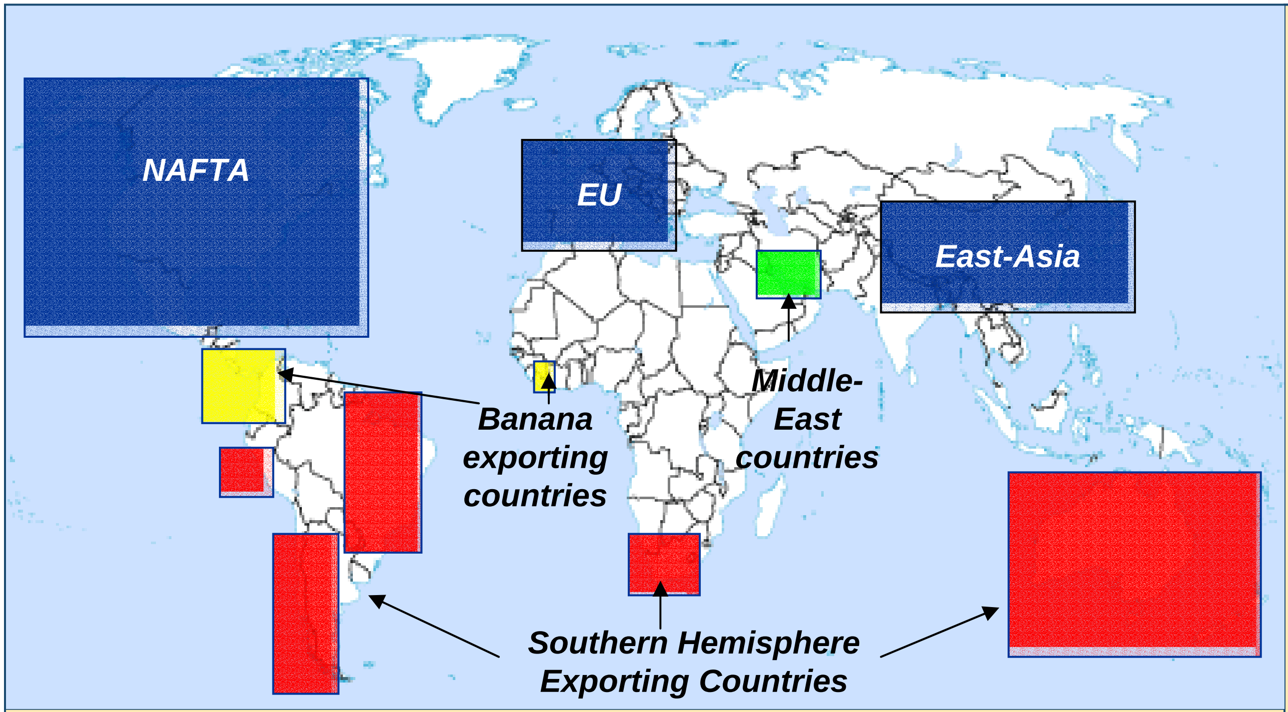
Source: USDA, 1999-2001 averages

- The world trade value of horticulture products is estimated at ***US$ 57 billion***
- ***Processed products*** represent ***40%*** of the trade
- 123 million tons exchanged in 2001, that is ***10% of total volume*** (1)
- ***World trade*** of horticulture products ***grew 3.3% a year*** between 1990 and 2001

(1) AgMRC, April 2003

Global Market

World exports – Horticulture products



- Mostly ***intraregional trade*** take place (e.g. 60% of European trade)
- ***Interregional trades*** have increased but are limited to:
  - North/South off-season imports
  - Banana trades
- Little opportunity for export of horticulture products into the main markets

3 main trading regions

75% of world trade

European Union

- 55% of imports
- 40% of exports

North America (NAFTA)

- 20% of imports
- 17% of exports

East Asia

- 12% of trade

Global Market

Dynamics of Western and East-Asian markets

- **Western Markets Opportunity**
  - Products are purchased in ***large volumes***
  - Main import opportunities lie in ***off-season products***
  - ***Choice criteria of products:***
    - Appearance of the product is more important than its taste
    - For the fruit transformation industry, regularity of the flows is the very first criteria
  - ***Organic is still marginal*** yet its share is increasing

- **Limitations to trade with Western Markets**
  - Import opportunities to EU are more and more limited by ***preferential trade agreements and very high standards***
  - For European fresh fruits buyers, ***cold chain and logistics optimization*** are the main key-factors.
  - ***The US favor intra-NAFTA trades***. Yet they are not as restrictive as the EU towards extra-regional imports

- **Opportunities with East-Asia**
  - East-Asia trades are dominated by the ***exports from China to Japan***
  - China is by far the world's ***number one producer of fruits and vegetables***
    - 72 million tons of fruits, representing 15% of global output(1)
    - 300 million tons of vegetables, 43% of global output(2)
  - China ***exports less than 1% of its production*** so far
  - Chinese prices are highly competitive

(1) Rabobank, 200

(2) AgMRC, USDA 2001

Global Market

Dynamics of Middle-East and South-Asian markets

Opportunities with South-Asia (India, Pakistan)

- India is the 2nd world's fruits and vegetables producer
  - 40 million tons of fruits, representing 8% of global output[1]
  - 72 million tons of vegetables, 10% of global output[1]
- India signed preferential trade agreements for most Afghanistan's horticulture products in 2003, clearing customs taxes by 50 to 100%
- Pakistan is the main trade partner of Afghanistan for fresh produce

Opportunity for counter-season vegetables and temperate fruits

Middle-East Markets Analysis

- Imports to Middle-East are estimated at $1 Billion [1]
- Dubai is the main trading hub for Middle-East and North- and East- African countries
- Afghan products find it hard to position themselves between high quality and more expensive US products and on the other end low cost products from Iran. Volumes of Afghan products are very low.
- Because of growing activity, new wholesale market with 434 outlets to open at Al Aweer in July 2004
- On-going improved quality controls program

Afghan horticulture products can enter this market with improved quality

(1) USDA, 2000

Global Market

Import markets – Buyers requirements

Major import markets tend to increase their quality standards, led by Europe's strict regulation

"Quality is our first concern. WE commercialize the products. WE are the ones to take the risks"
Mr F., Purchasing Manager of a world leading agribusiness group

"UK published a "black list of exporters" whose products were not conform"
Pesticides Initiative Program Magazine

EU main requirements

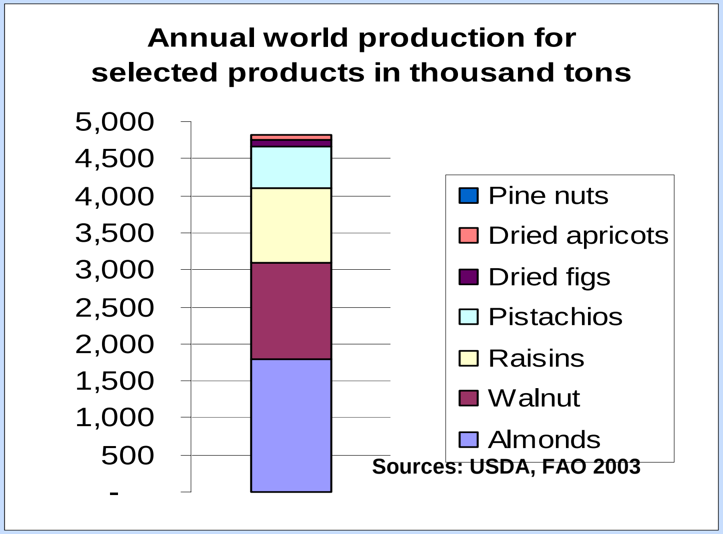
- All EU food processors are required to implement an HACCP (sanitary control) system
- EU is preparing a legislation requiring importing countries to have a quality control system similar to HACCP
- ISO 9002 (working methods) and Euregap (fresh fruits) in the first place, are major assets for the importers

Buyers requirements

- To share responsibility, most EU importers require their suppliers to get the same certifications as themselves
- Major firms audit the factories they are working with
- Accreditation process takes a couple of months (up to 3 years)

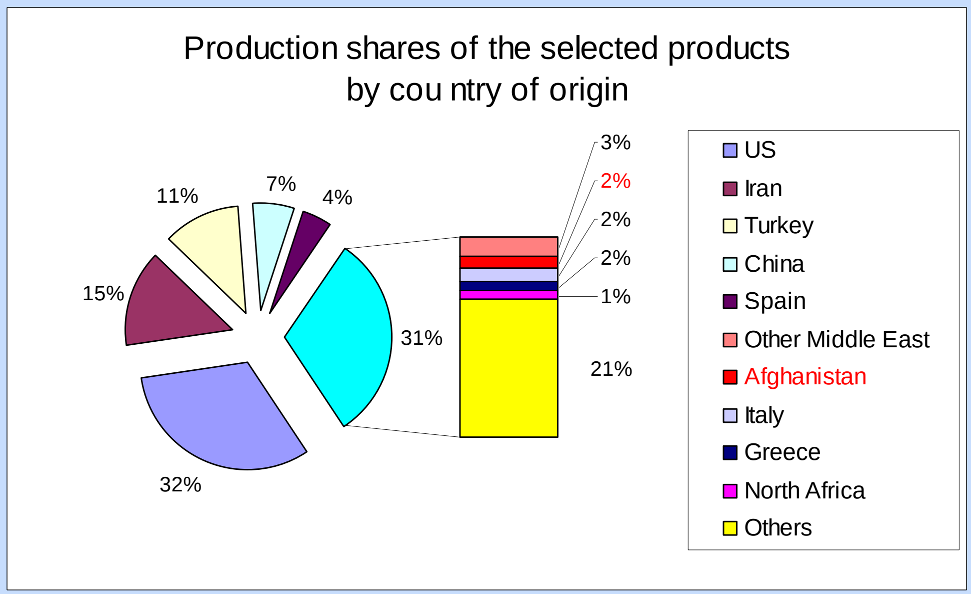
Global Market
Dried fruits and nuts

Afghanistan could potentially be a significant player on the dried fruits market



- *4 main producers (US, Iran, Turkey, China) account for two thirds of the production*
- With estimated 91,000 tons out of 4.8 million tons, ***Afghanistan's volume share of world production is about 2%,*** down from about 10% in the 70's

- Main Afghan products are almond, walnut, raisin and pistachio
- The global export market for these products is estimated at **$2.2 Billion** for **1.3 million tons** traded yearly



Global Market
Organic products

Organic food is a fast growing trend in western countries

Definition

– Food grown without the use of synthetic chemicals such as artificial fertilizers, pesticides, growth regulators

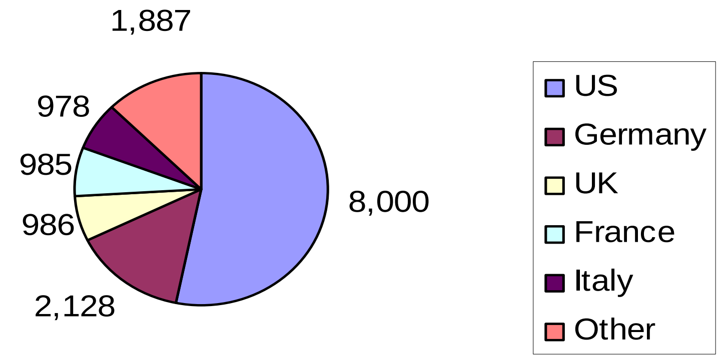
Organic labels

– EU organic logo, California Organic Food Act 1990, French AB, German Demeter…

Drivers

– Argument over GMOs
– Environmental concerns
– Health awareness (wellbeing)
– Government and retailer support

Organic market values (US$ Million) 2000



Total: US$ 15 billion

Opportunities

- Western countries
- 20% growth forecast for the next few years
- Consumers may be willing to pay 20% more than conventional products
- Traditional farming in Afghanistan is close to organic

Constraints

- Certification (quality control)
- Optimization of marketing channels
- Competition with developing countries, China and India in particular
- Competition with local producers => need for logistic costs optimization

Global Market

Fairtrade

Afghanistan can be positioned as a strong brand in Fairtrade market for juices and dried products

Definition

- Products guaranteeing fair and sustainable conditions for the producers and their environment.

Fairtrade label

- E.g. Max Havelaar's certification for a growing list of products

Drivers

- Consumers accept to pay 5-15% more if the products are produced properly
- Growing interest for the concepts of sustainable development
- Support of major retailers

Coffee with Fairtrade label

Opportunities

- Strong growth in Western countries
- Max Havelaar: sales of fruit juices grew 40% a year for the last 3 years (US$ 8 million revenue in 2003)
- Focus on small production units
- Certification for dried fruits and nuts under study by FLO (Fairtrade Labelling Organization)
- Afghanistan brand in the context of reconstruction

Constraints

- Certification covers only some products
- Introducing new products take time
- Need for cooperative structures
- Emerging market for dried fruits

Global Market

Position of Afghanistan in Global Markets

Afghanistan has a potential for selected crops but needs to specialize as it is not part of major trading regions

Opportunities

- Open regional markets
- Strong potential for dried fruits
- Differentiation in quality products
- Growing organic and fairtrade markets
- Import substitution

Constraints

- Not part of a major trading region
- No counter-season opportunity with major trading regions
- Certification requirements to go to western markets

Agenda

Project Presentation

Global Market

Production and Marketing in Afghanistan

- Production conditions
- Post-harvesting conditions
- Value Chains
- Internal Flow
- Import/Exports

Short-Listing of Opportunities

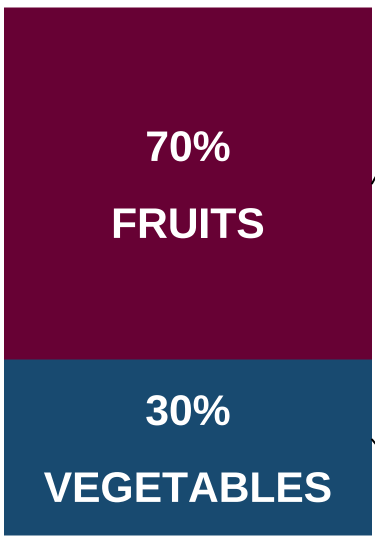
Next Phase

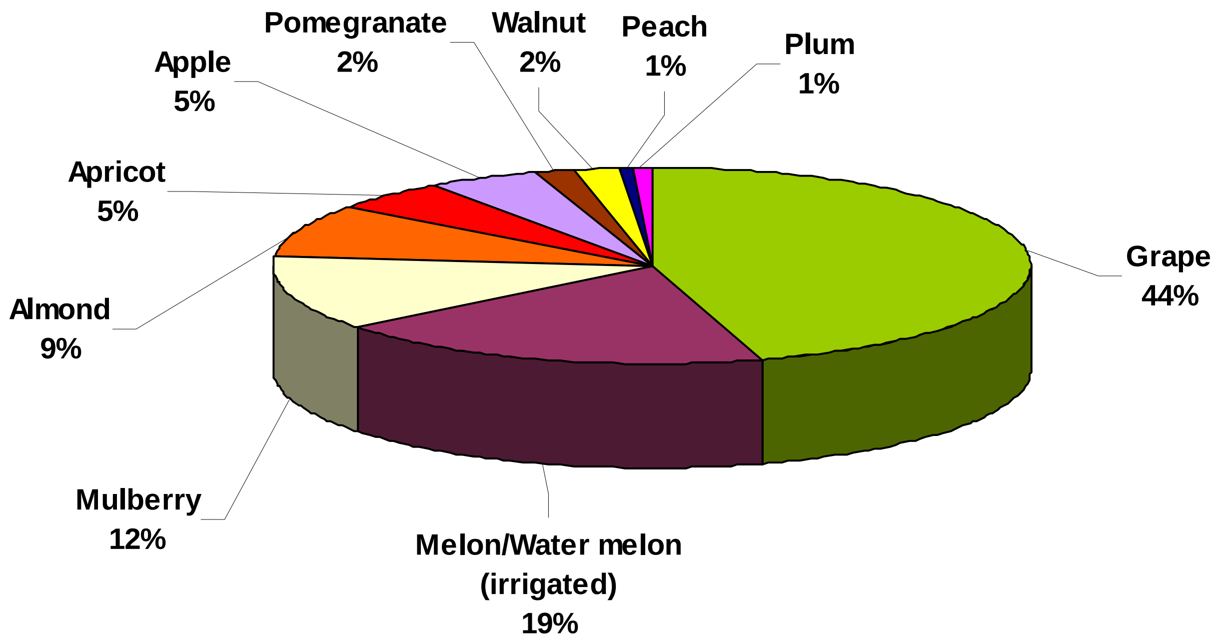
Production and Marketing

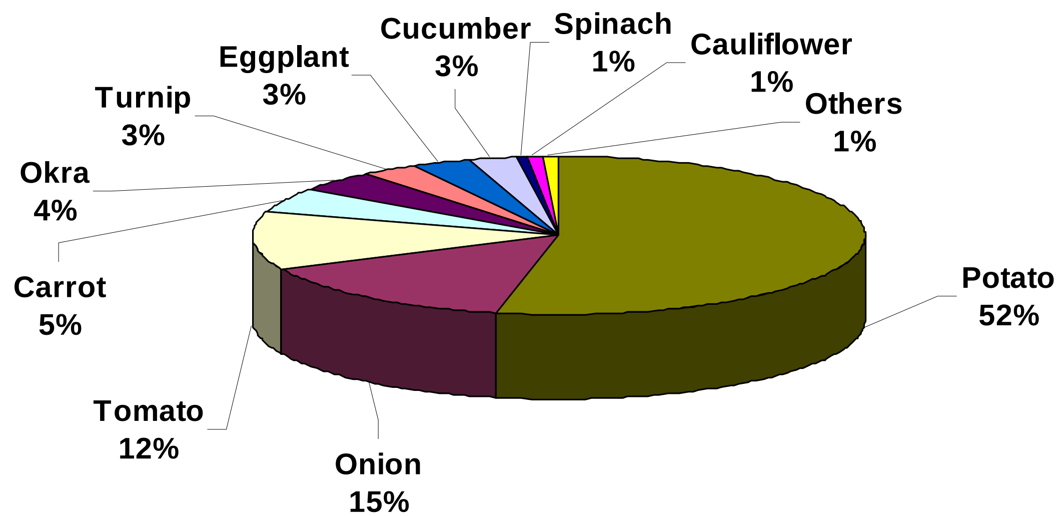
What horticulture crops are Afghan farmers cultivating?

5 top fruits and vegetables represent ~ 90% of area cultivated

- ***Relatively low horticulture crop diversification***







- ***Horticulture crops represent 10% of total irrigated area***

<u>Source</u>: Analysis of FAO 1997 Agriculture survey and FAO2002-2003 Winter Agriculture Survey databases.

- ***2.05 ha irrigated with first crop, 0.35 irrigated with second crop and 0.21 ha irrigated horticulture crops.***

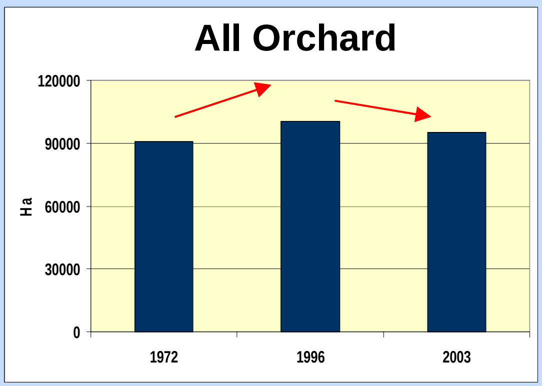
Production and Marketing

Production trends

Despite war, drought and global market consolidation, land allocated to fruit crops has slightly increased over the past 25 years

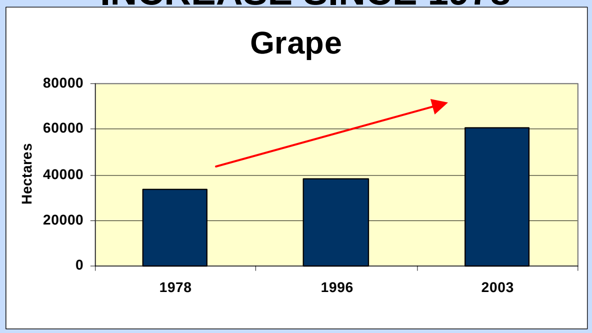
OVERALL SLIGHT INCREASE IN THE PAST 25 YEARS

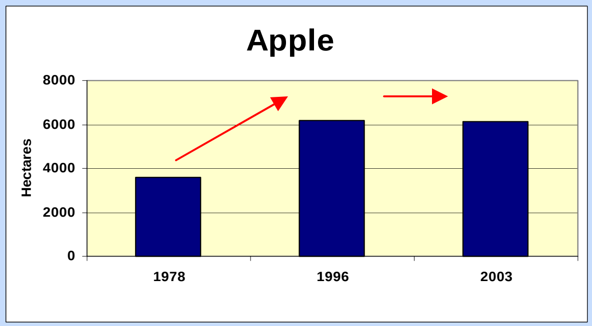
But a significant decrease since 1996 due to the drought

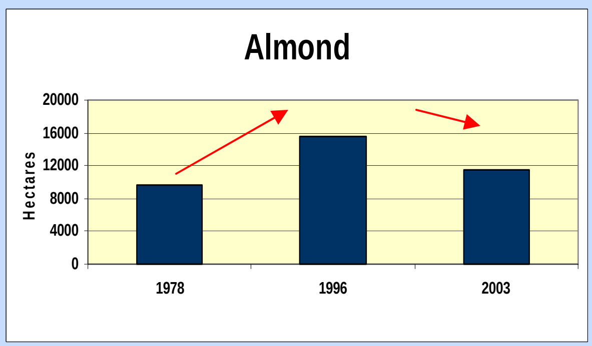


Source: FAO, Landcover data, 1972 & 1993 and analysis of FAO 1978 and 1996 Agriculture survey, and FAO 2002-2003 Winter Agriculture Survey

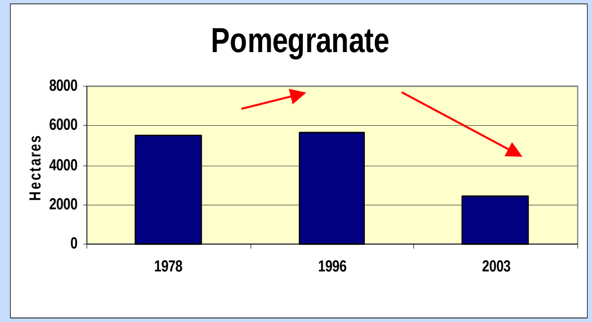
INCREASE SINCE 1978

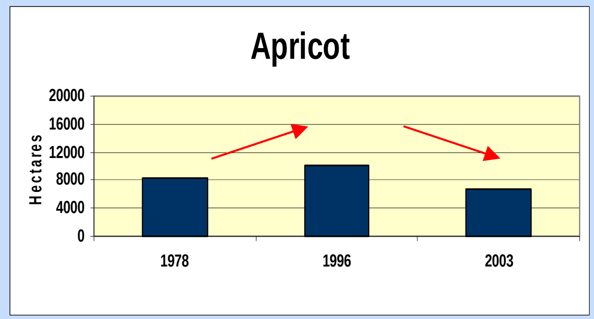


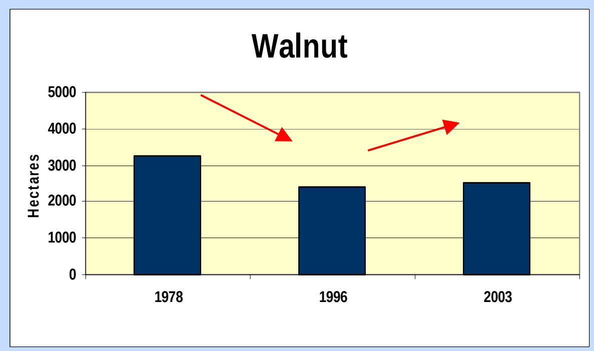




DECREASE SINCE 1978







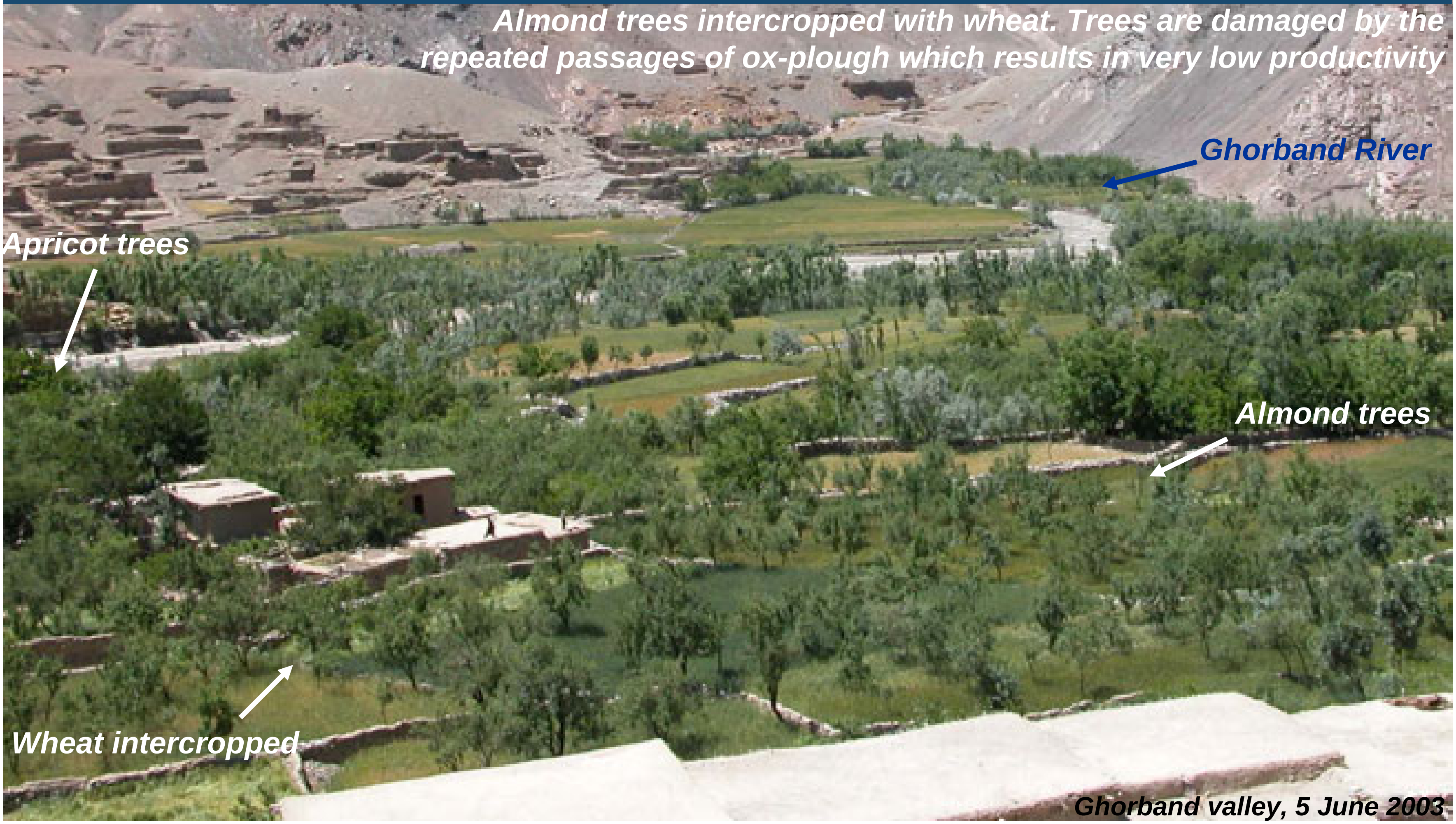
Production practices did not change over the past 25 years - Lack of know-how on horticulture commercial cultivation practices

- ***Low productivity and quality***
  - Traditional/extensive production system
  - Only few intensive commercial orchards
- ***No uniformity of varieties***
  - Some species are propagated without grafting – stone fruits, walnuts, some almonds
  - Only few commercial nurseries
- ***Poor farming practices***
  - Excessive irrigation (vineyards/pomefruits orchards are flooded every 10-15 days)
  - Lack of pruning (pomegranate in Kandahar) or incorrect pruning (apple in Wardak)
  - Deep planting (burring rootstock) resulting in delayed bearing
  - Vine trained on the soil or on mud trellises resulting in high incidence of diseases and presence of dirt/dust
  - Incorrect orchard floor management
- ***No or poor pest (and virus) management***


Sari Pul, Sozma Qala, 16 May 2003


Herat, Injil 29 May 2003

Most of the orchards are intercropped with cereal and have low productivity



Ghorband valley, 5 June 2003

The few existing intensive production systems also have low productivity

Production and Marketing
Yield comparison

Horticulture crop yields of Afghanistan are low but close to its neighbours

Grapes	Yield (Mt/Ha)
India	24.49
United States of America	16.65
China	11.19
Turkey	9 to 11
Iran	9.51
Afghanistan	8.50
Turk-Uzb-Taj	5.30
Pakistan	4.14

Watermelon	Mt/Ha
China	32.90
Turkey	30.36
United States of America	28.76
Pakistan	21.00
Iran	20.90
Turk-Uzb-Taj	13.14
India	12.75
Afghanistan	12.30

Almond	Yield (Mt/Ha)
United States of America	3.46
Pakistan	2.47
China	2.20
Turkey	2.11
Afghanistan	1.40
Iran	0.91
Turk-Uzb-Taj	0.67

Potatoes	Yield (Mt/Ha)
United States of America	41.15
Turkey	25.99
Iran	21.00
India	18.49
Pakistan	16.52
Turk-Uzb-Taj	14.79
China	14.67
Afghanistan	14.10

Tomatoes	Yield (Mt/Ha)
United States of America	65.90
Turkey	40.11
Iran	28.22
China	25.61
Turk-Uzb-Taj	23.14
India	14.81
Afghanistan	10.70
Pakistan	9.83

Carrots	Yield (Mt/Ha)
United States of America	38.68
Iran	25.00
Turk-Uzb-Taj	24.78
Turkey	19.58
China	18.74
Pakistan	17.70
India	14.58
Afghanistan	10.50

***Source*:** *www.fao.org*

Production and Marketing

Packaging and processing

Packaging/processing practices did not change over the past 25 years

- Packaging in wooden crates of inappropriate size results in important losses of products
- Wooden crates are unfit for international exports (except Pakistan and India)
- No cold chain to transport fresh horticulture products

Reduced quality and important losses


Mazar-e Sharif, 5 June 2004


Mazar-e Sharif, 1 June 2004

Limited processing capacity

- Raisins factories damaged or not maintained
  - 9 factories out of 27 constructed before the war are operational
  - Equipment and process is outdated
  - Processing factories are often rented to traders (owners do not market themselves)
- Olive oil factory in Jalalabad

Production and Marketing

Outdated processing plants

Raisin processing plants do not meet certification requirements for European markets

Afghanistan, Raisin processing plant, June 2004

Turkey, Elbiscan laser sorting/scanning/ reinspection system

Quality standards of Afghan horticulture products can improve

APPEARANCE

- Irregular size (no calibrating), color (diverse varieties except for grapes and apple) and maturity (fields harvested at once)
- Dusty
- Often bruised (packaging)
- Often marked by pests and diseases (stone fruits sometimes have worms inside)

CONSERVATION

- Short shelf life as fruits/vegetables are harvested at suboptimal time (potatoes are not defoliated before harvest, too late irrigation on onions, apple harvested too late and all at once, mechanical damages during packaging reduce conservation, etc..)
- Inadequate storage practices (insufficient ventilation in stores)

TASTE

- Good in general but it varies from one fruit/vegetable to the other
- Unpleasant surprises (bitter almonds in a lot of sweet almonds)

Mazar-e Sharif, 5 June 2004

Food safety concern over Afghan horticulture products

- Fruits and vegetables are washed or moistured with ***unsafe water*** (no water supply in the wholesale markets)
- Presence of ***contaminants in urban dust*** found in horticulture products (open latrines in every city and wholesale markets have no facilities)
- Most of horticulture products are produced without ***pesticides*** but when chemicals are used, there is no standard/control on residues
- Raisin processing facilities are ***below international requirements*** in term of hygiene and food safety
- Lack of personnel dealing with food safety issues

Parwan, Ghorband, 4 June 2003

Production and Marketing

Marketing conditions – Mechanisms

Social networks and free markets (open fairs) command the marketing environment

The marketing sector is organized in fragmented vertical <u>social networks</u> which hamper optimization of market opportunities:

- The rationales for wholesalers and traders to market horticulture products to one destination rather than another is largely determined by presence of solidarity networks (*qawm*) members
- The fragmentation of the Afghan society hampers the establishment of contractual relations outside of social networks (*qawm*) between producers and traders for large volumes of good quality products

Horticulture products are sold in <u>open fairs</u> which promotes low prices rather quality:

- Government has little influence on market prices and quality regulation
- Wholesale markets are ***highly speculative*** and depends on daily available trade information such as number of buyers/sellers, trade agreements, etc…
- Market days in districts are coordinated with market days in provinces which allows marketing of farmers products in remote area, but the number of intermediaries increases

Example volatility of market prices; Tomato price in Jalalabad wholesale market:

22nd May 2004 = 50 Afs/seer

23rd May 2004 = 90 Afs/seer

24th May 2004 = 60 Afs/seer

Production and Marketing
Marketing conditions – Mechanisms

Wholesale markets work as open fairs but also through social networks

Existing horticulture markets focus is on prices and not quality

FROM FARMERS TO WHOLESALERS

Large number of actors from the production to the marketing which results in fierce competition on prices but do not promote quality:

There are approximately 1 million farms in Afghanistan out of which approximately **0.6 million farmers** grow horticulture crops

There are ***more than 2,000 wholesalers*** for horticulture products. The wholesalers are located in the 5 main wholesale markets (Kabul, Kandahar, Mazar, Jalalabad and Herat) and smaller wholesale markets in the 34 provinces

There are several thousands middle men liaising the many farmers and wholesalers

BENCHMARK: WORLD MARKETS

Large retailer chains sometimes control 20 to 60% of the horticulture market of one country (e.g. Carrefour, Auchan, Migros)

Their focus is on quality:

1. **Food safety**
2. **Appearance**
3. **Taste**

Quality grading is done by retailers at the very end of the marketing chain

RETAILERS

- The number of retailers is unknown but amounts to several thousand people
- Producers and retailers do not know each other
- Retailers for fresh products have no facilities and often sell their products on hand pulled carts
- Retailers have an important share of the value chain (~ 10 %) as sorting products by quality is done at their level (last level of the marketing chain) and they bear the risks of spoiled unsold products

BENCHMARK: WORLD MARKETS

Large retailers have direct ***contractual agreements with producers,*** which establishes quality requirements for horticulture products

Parwan, Charikar, 25 June 2004

Production and Marketing

Marketing conditions - Actors

TRADERS

Limited number of operating importers and exporters:

- The import/export traders are located in the 5 major cities (Kabul, Herat, Mazar-e Sharif, Kandahar and Jalalabad) in which local powers influence trading environment
- Lack of information on foreign markets (world wide prices, quality requirements, contract)
- Lack of communication facilities until recently

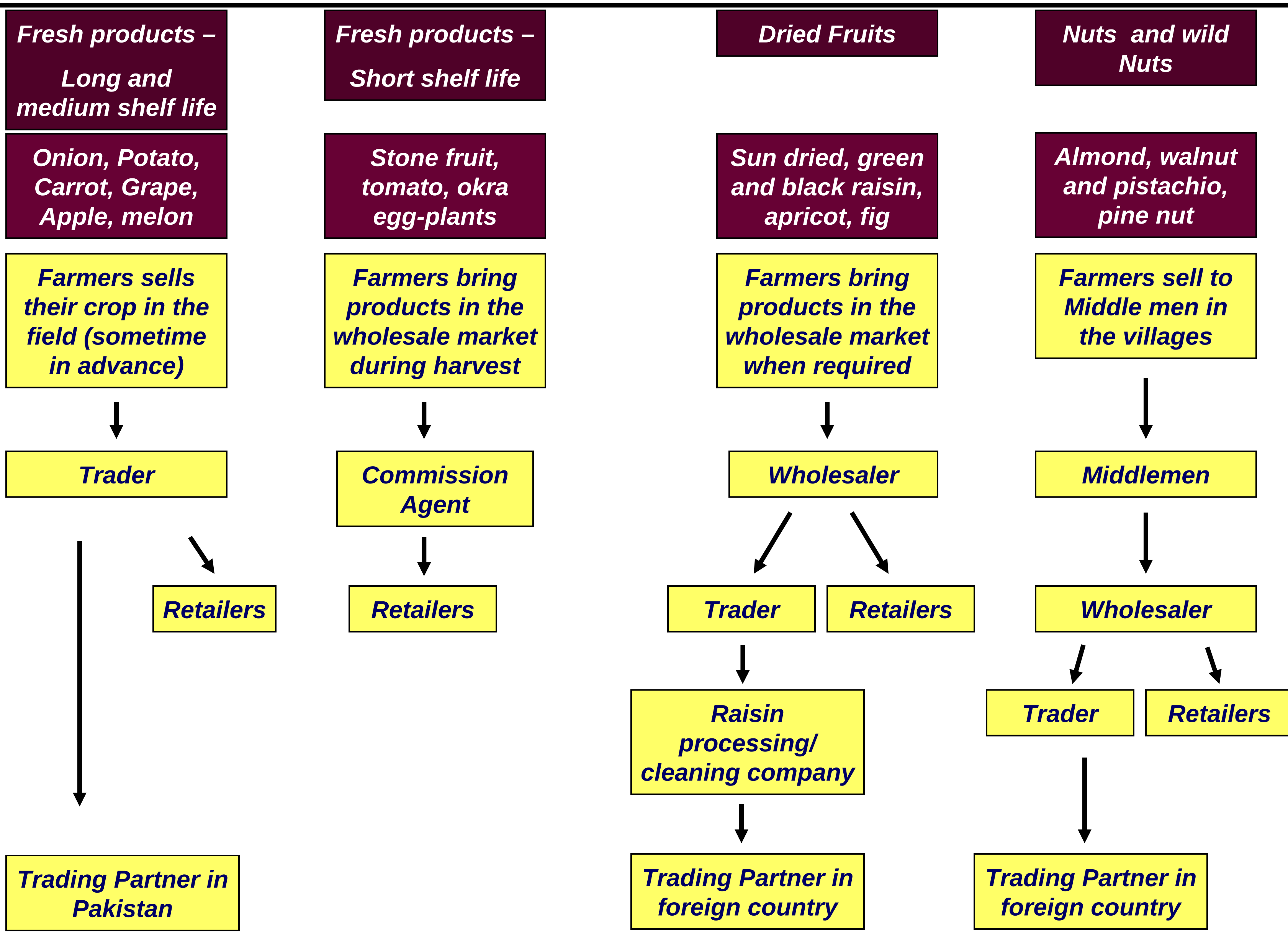
ACTORS STRATEGY

In the past decades, the strategy adopted by actors at all level of the horticulture sector was to limit risks through the choice of temporary solutions (extensive intercropped orchards, focus on price instead of quality, interest in short term trade opportunities, limited investment in factories, etc…)

➢ The current environment is more conducive to private investment for large processing facilities

Production and Marketing

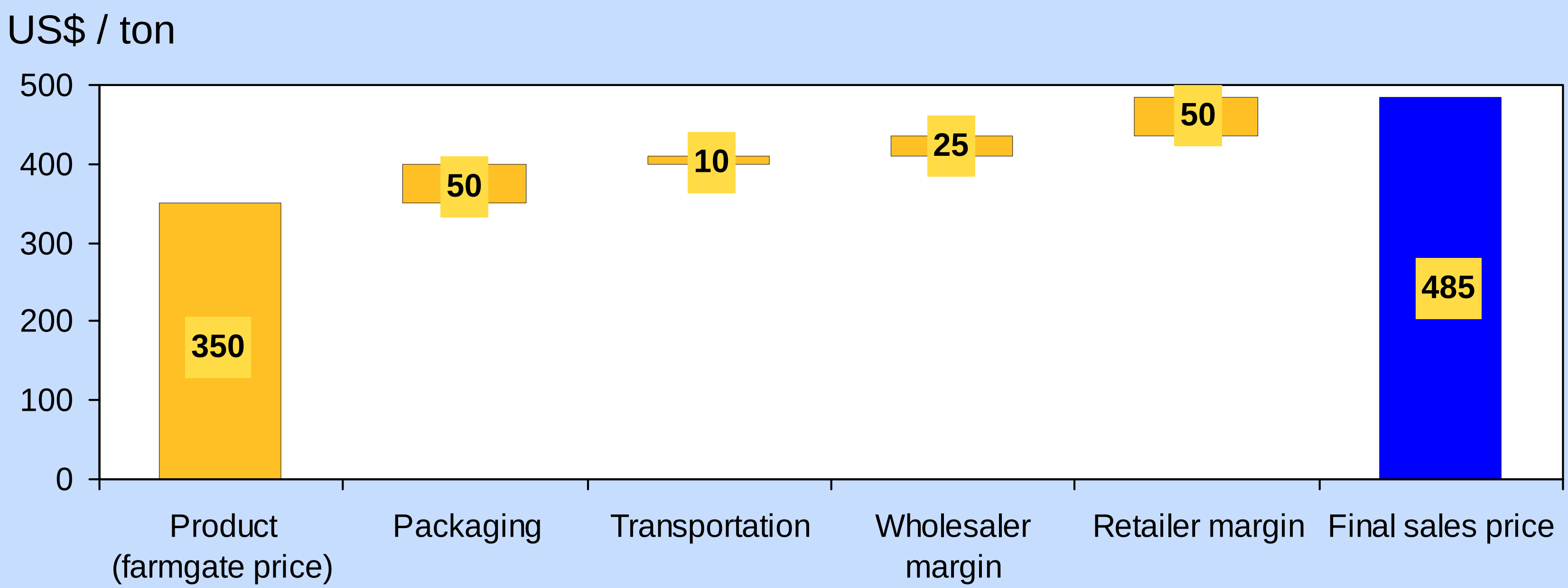
Marketing chains – 4 types of products



Production and Marketing
Value chain – Grape

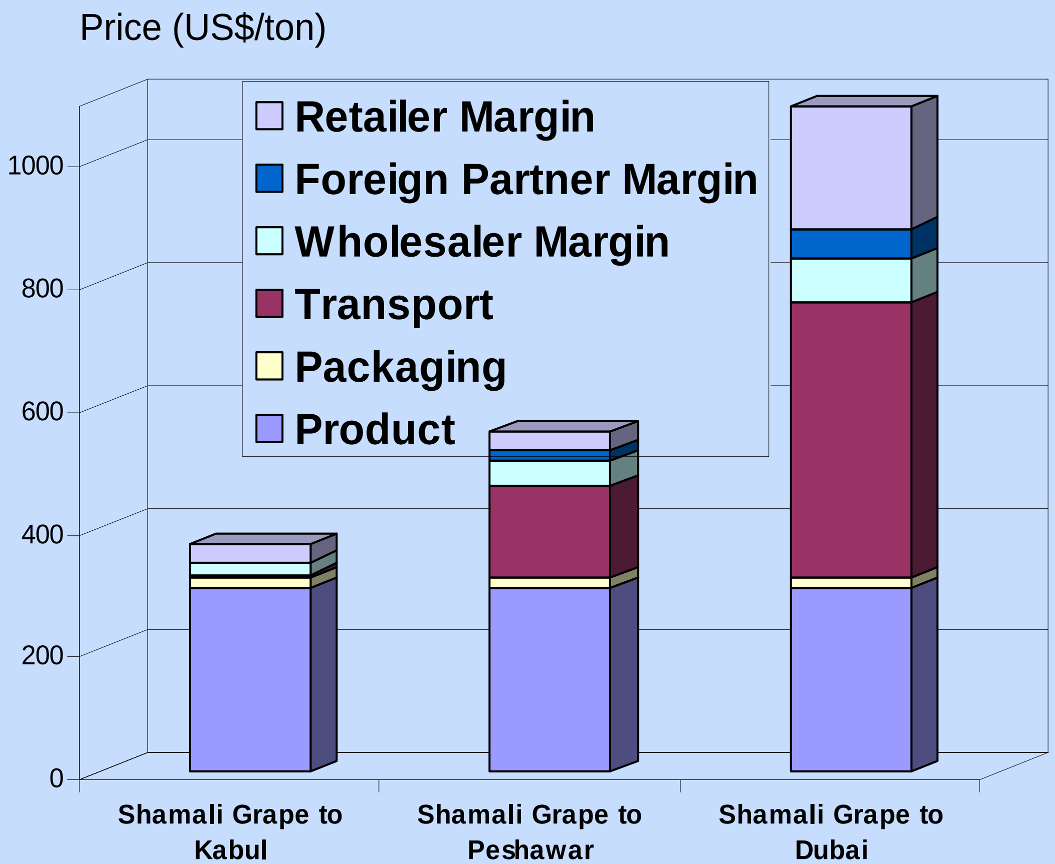
The value chain of grape shows a number of Afghan actors with low added value

Example: Shamali grape in Kabul (retail)



Production and Marketing

Value chain - Grape



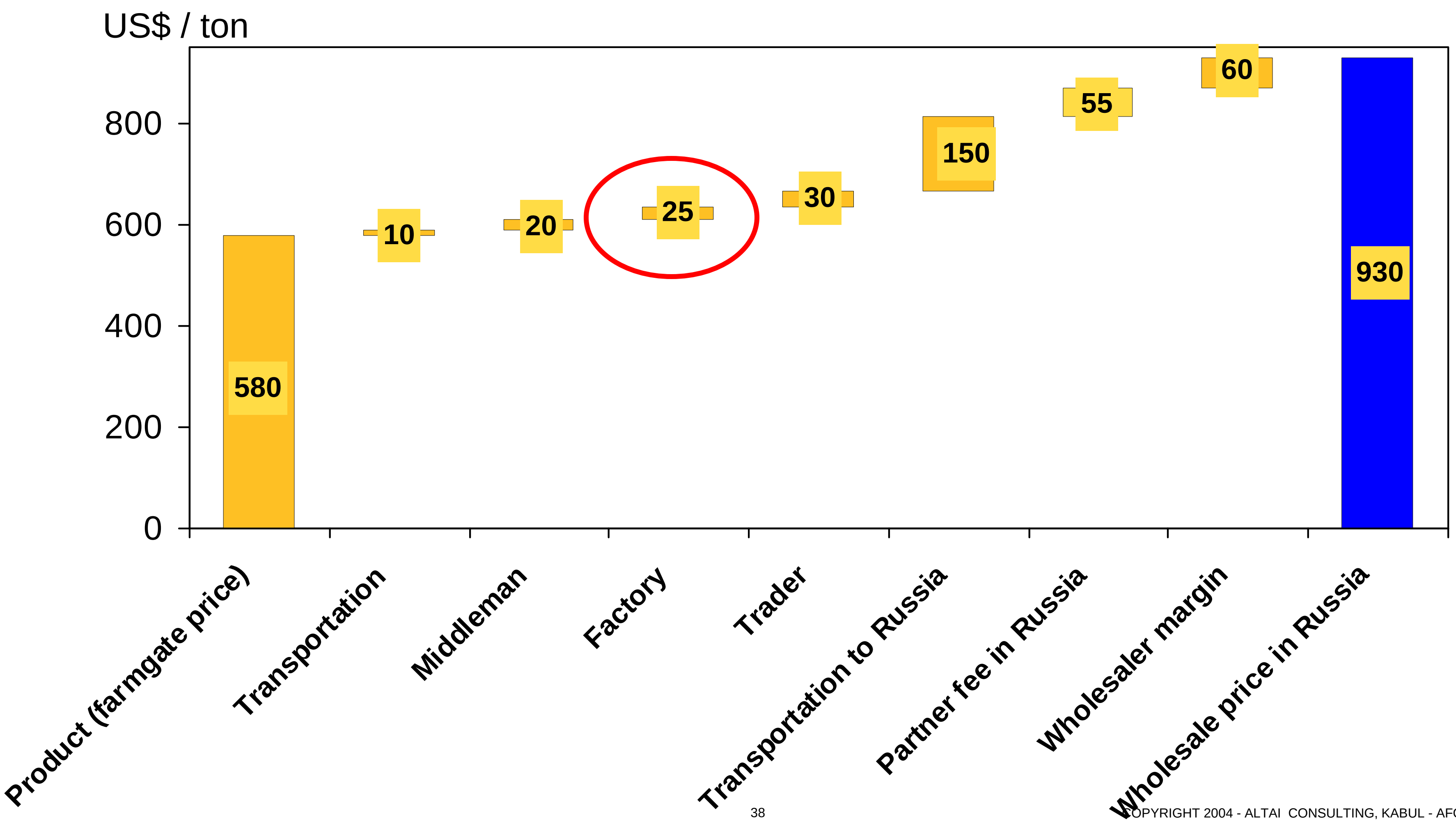
- **When comparing the value chain of Shomali grapes across several markets (Kabul, Peshawar, Dubai), it is easy to notice the influence of logistics on the price of exported fruits**
- **Logistic costs represent approximately 125% of the farm-gate price when exported to Dubai**

Production and Marketing

Value chain – Raisin

Raisin processing adds relatively small value, but makes logistics less of an issue

Example: sun-dried Shamali raisin processed in Kabul and exported to Russia

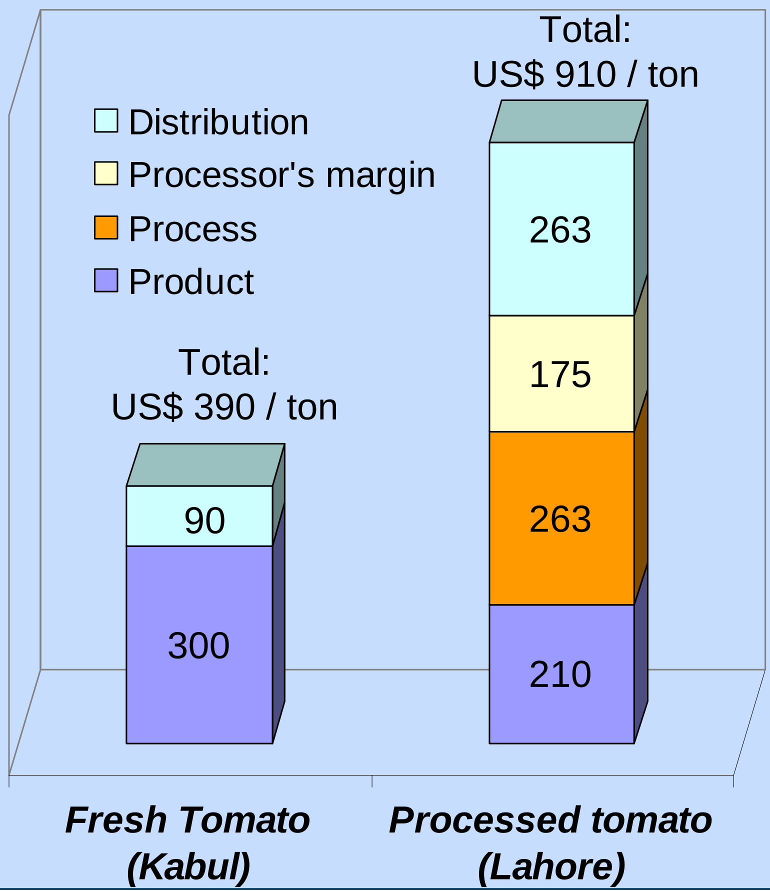


Production and Marketing

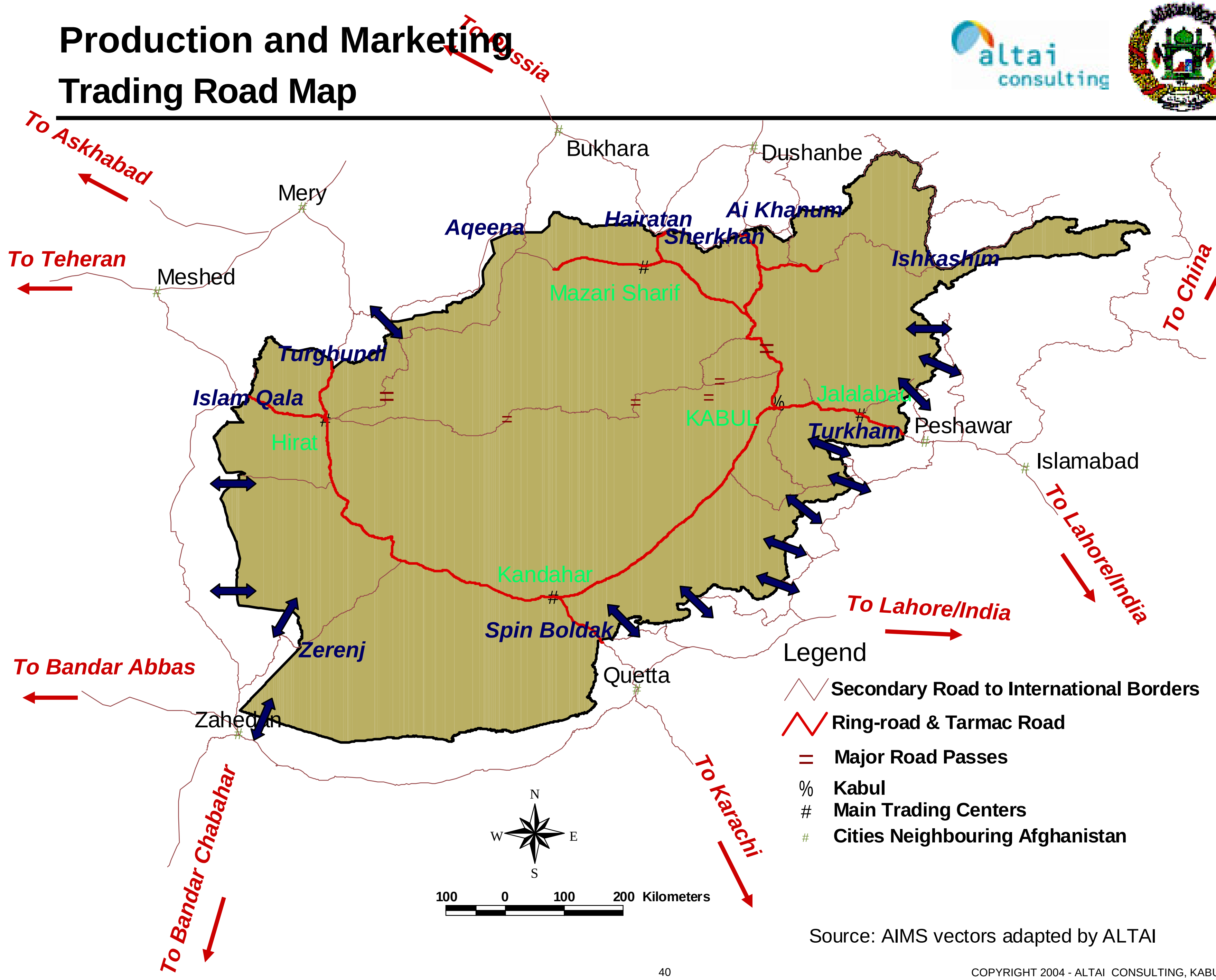
Value chain – Fresh tomato vs. tomato paste

The value chain of processed tomatoes in Pakistan shows high value added

Fresh and Processed Products Value Chain (in US$ per ton)



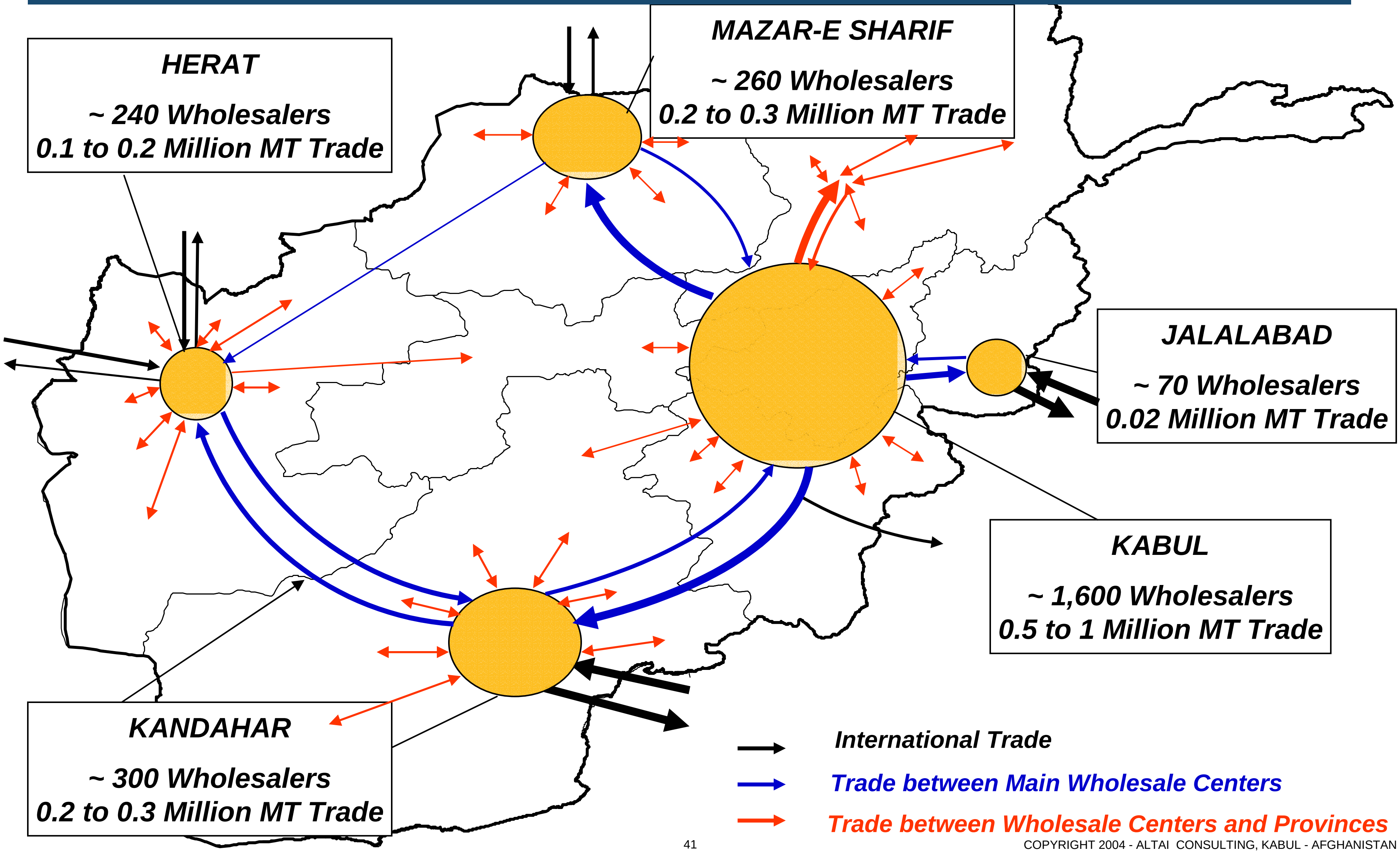
Production and Marketing Trading Road Map



Source: AIMS vectors adapted by ALTAI

Production and Marketing
Horticulture products trade routes

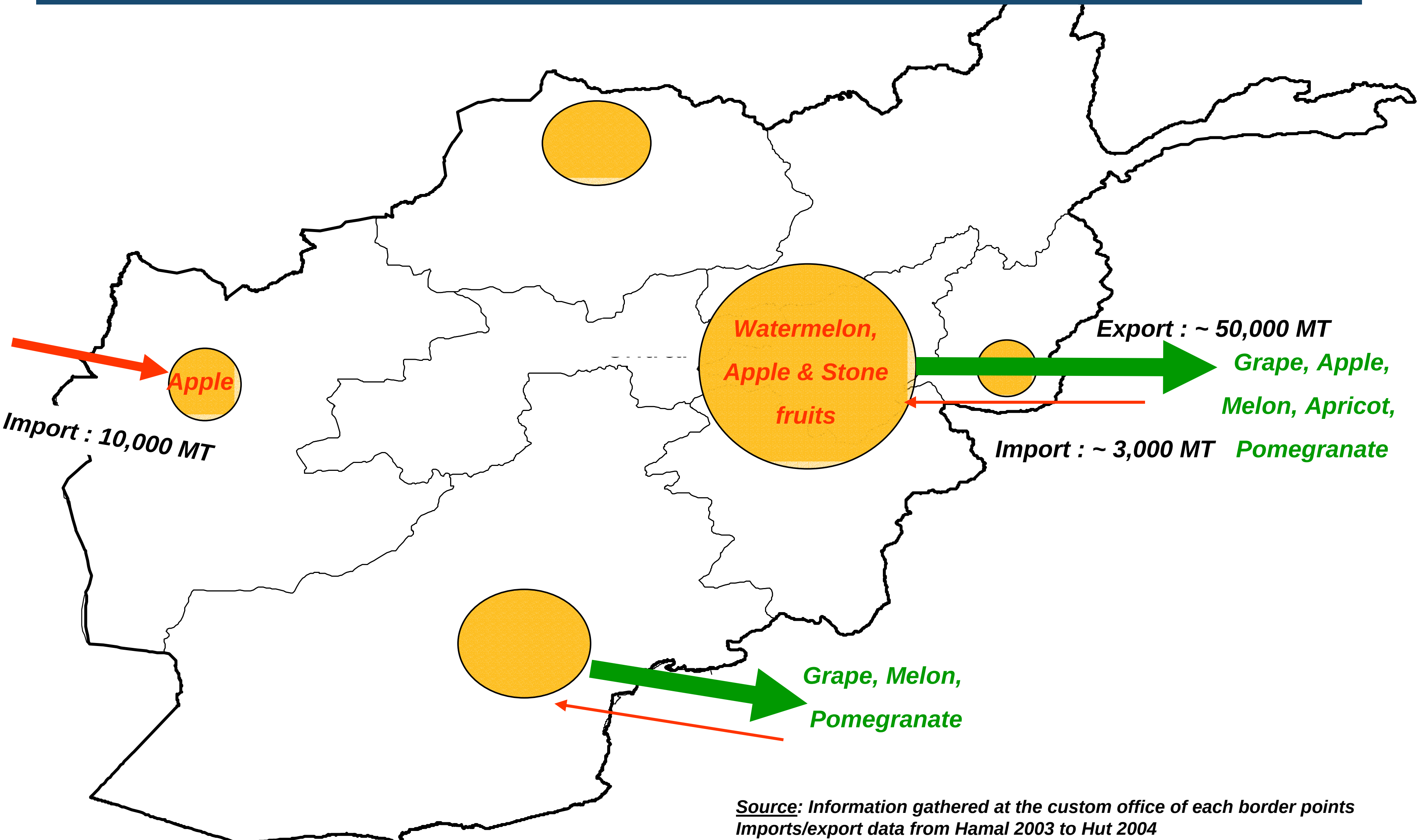
5 trading centers and main wholesale markets – Kabul is the main hub



Production and Marketing

Import / Export – Fresh fruits

Pakistan is the main trading partner for fresh fruits (temperate fruits exports)

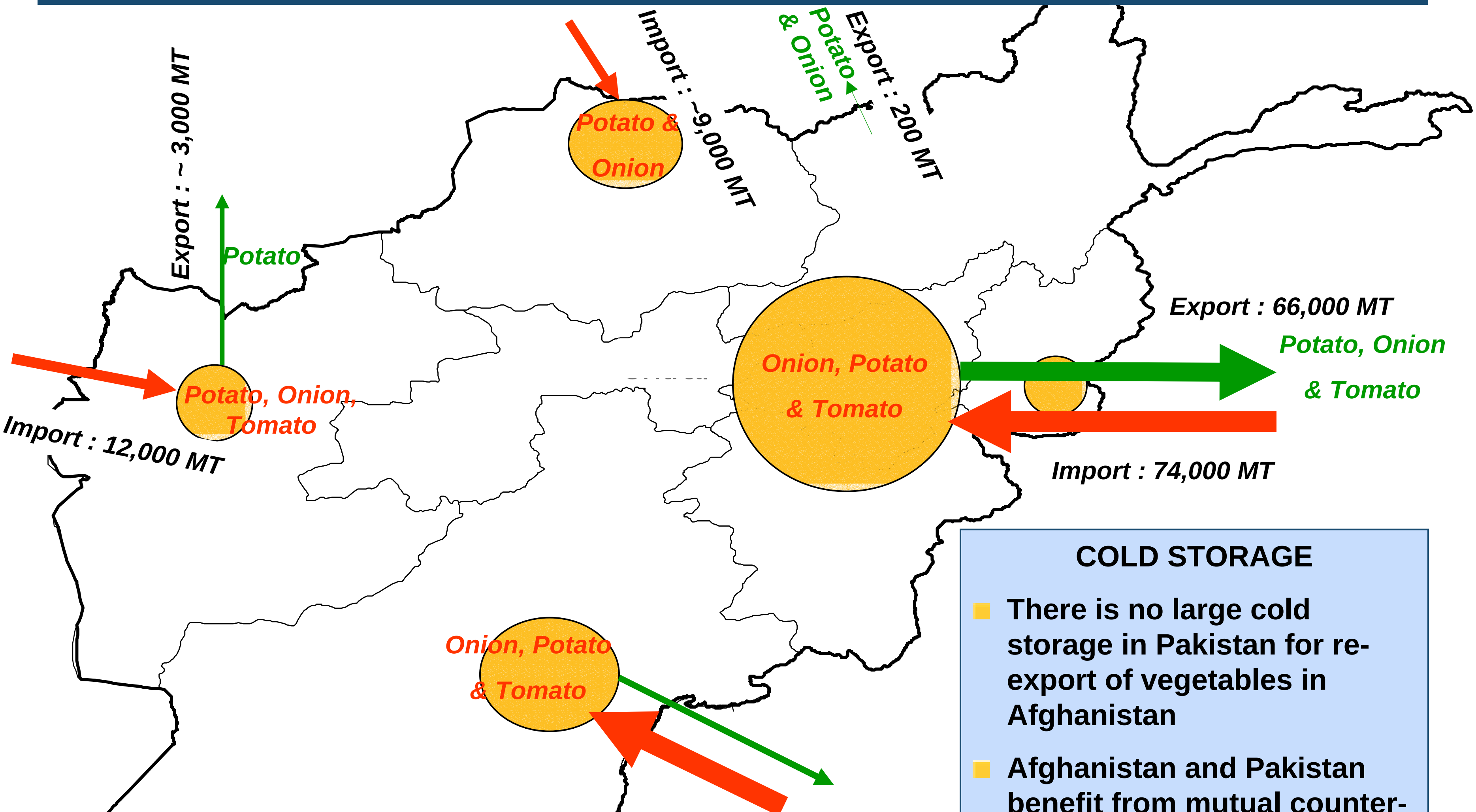


***Source*: Information gathered at the custom office of each border points**
Imports/export data from Hamal 2003 to Hut 2004

Production and Marketing

Import / Export – Fresh vegetables

Pakistan is the main trading partner for fresh fruits (counter-season trading)



COLD STORAGE

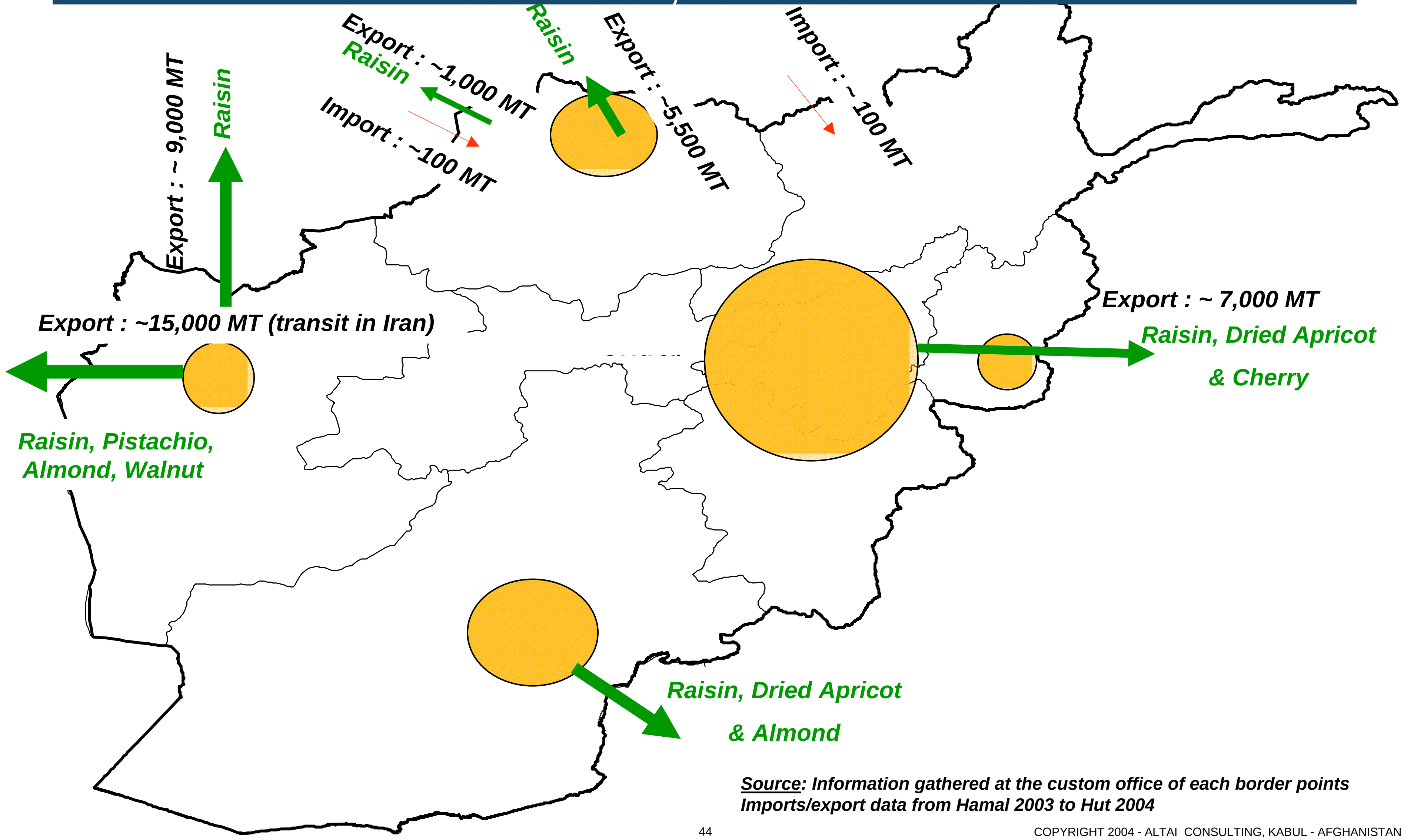
- **There is no large cold storage in Pakistan for re-export of vegetables in Afghanistan**
- **Afghanistan and Pakistan benefit from mutual counter-season market opportunities**

***Source*: Information gathered at the custom office of each border points**
Imports/export data from Hamal 2003 to Hut 2004

Production and Marketing

Import / Export – Dried fruits and nuts

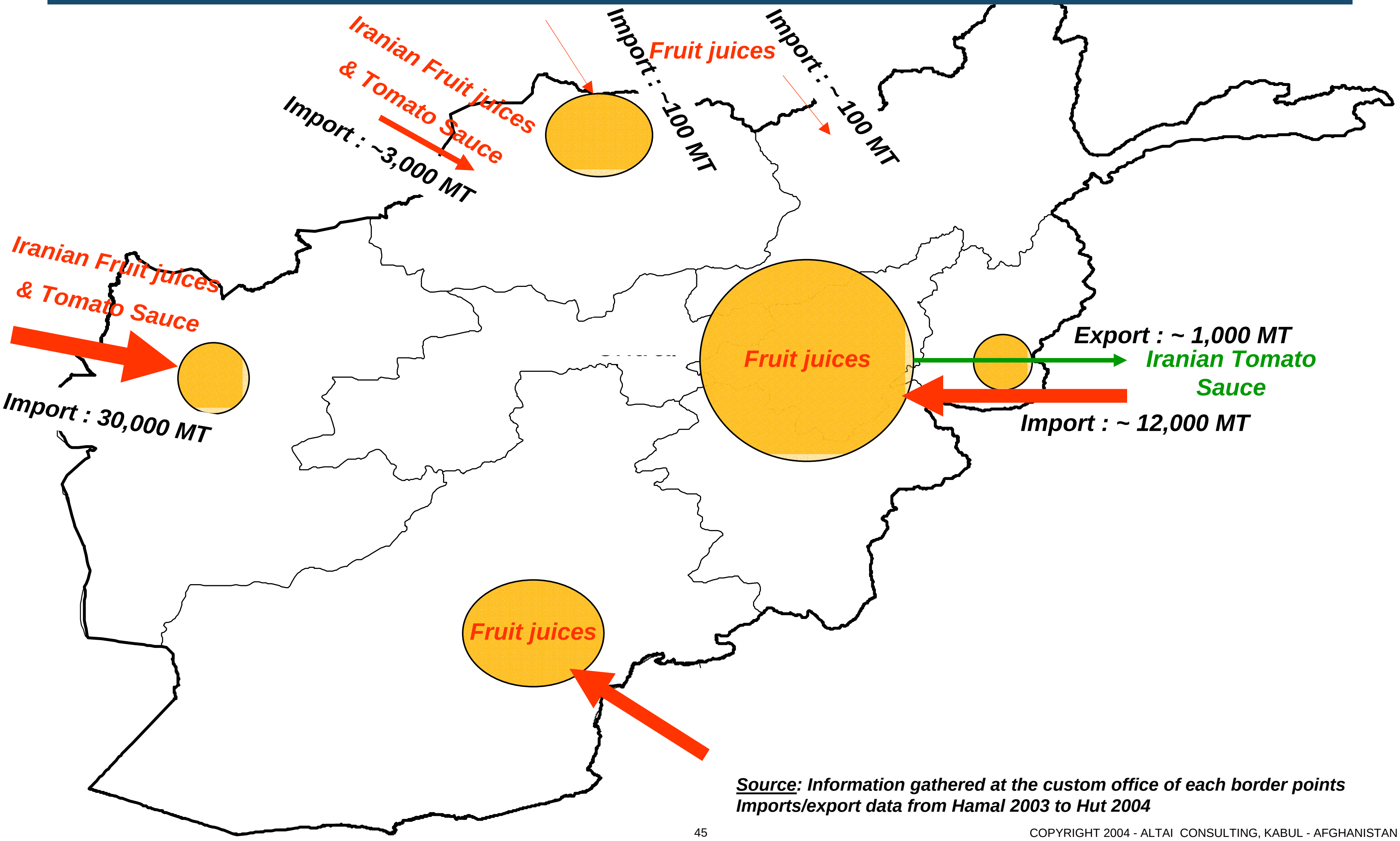
Afghanistan exports dried fruits through CIS countries, Iran and Pakistan to markets in Russian, India and the Middle East



__Source__: Information gathered at the custom office of each border points Imports/export data from Hamal 2003 to Hut 2004

Production and Marketing
Import / Export – Processed products

Afghanistan imports all processed products from Iran and Pakistan



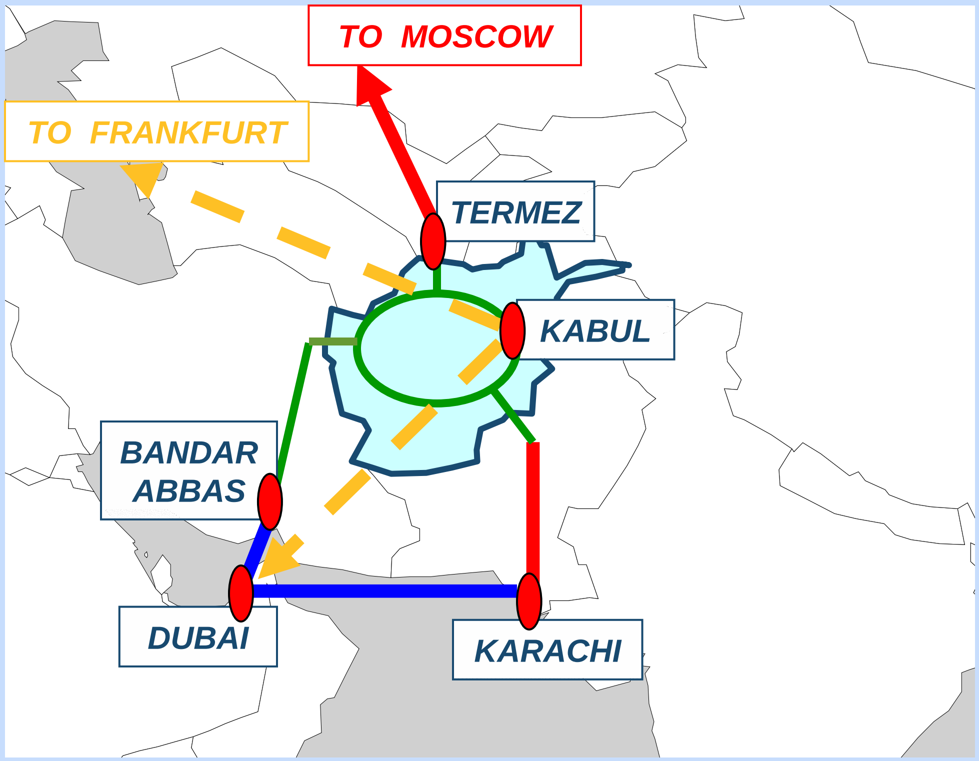
***Source*: Information gathered at the custom office of each border points**
Imports/export data from Hamal 2003 to Hut 2004

Production and Marketing

Export channels

Due to its landlocked situation,

logistics is a main hurdle for Afghan exports and horticultural markets



Air transportation:

- Dubai : US$ 350 / ton
- Frankfurt : US$ 1,000 / ton
- Moscow : US$ 1,000 / ton

Non-air transportation:

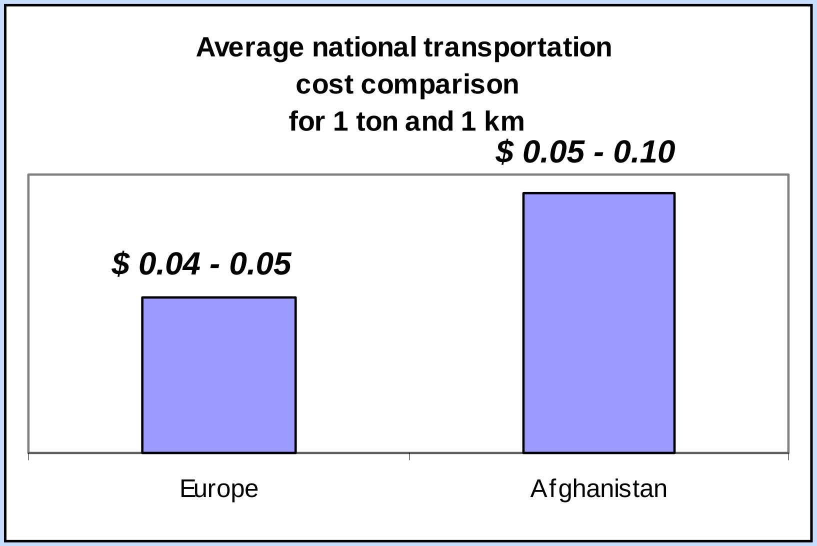
- Dubai : US$ 100 / ton – 10 days
- Moscow : US$ 140 to 200 / ton – 20 days
- Karachi : US$ 100 to 150 / ton – 4 weeks

Sea freight — *Rail transportation*

Road transportation — *Air transportation*

Afghanistan faces severe road transportation costs

- **Less than 50 refrigerated trucks are available around the country**
- **Up to 200% price differences on prices applied by various transporters**
- **Absence of insurance system**
- **Difficulty to optimize return trips**
- **Road transportation costs are higher than Europe's despite lower labor and oil costs**



Logistics (Air transportation)

Air transportation does not offer satisfying costs and sanitary conditions

- **Ariana Afghan Airlines is the cheapest alternative (US$ 350 a ton to Dubai)**
- **The level of quality of service offered by Ariana is unadapted to fresh fruits transportation:**
  - **Poor storage and sanitary conditions**
  - **Cancellations and delays**
- **Cargo companies using DHL flights and Azal offer better quality of service. Yet the prices are prohibitive for fruits and vegetables**
  - **Azal:**
    - **Kabul – Dubai $2000 / ton**
    - **Kabul – Moscow: $1850 / ton**

Production and Marketing

Key findings

- The horticulture sector did not improve but did not collapse in the past 25 years
- Given its climatic potential for horticulture, Afghanistan has an under-developed horticulture sector
- The sector is gripped by structural constraints from production to marketing of the products
- All actors in the marketing chain of horticulture products have adopted strategies to limit risks in the past decade
- Logistic constraints in a landlocked country
- Political insecurity is a major threat to changes

Ways to develop the horticulture sector through the private sector:

- Wealthier farmers/land owners are in the best position to take investment risks in intensive horticulture crops – commercial orchards
- Potential Afghan investors may need to have sufficient control over the whole marketing chain:
  - production (commercial crops)
  - processing (industrial plants)
  - distribution (marketing networks)
- Risks have to be shared with public funds due to the lack of infrastructure

Agenda

Project Presentation

Global Market

Production and Marketing in Afghanistan

Short-Listing of Opportunities

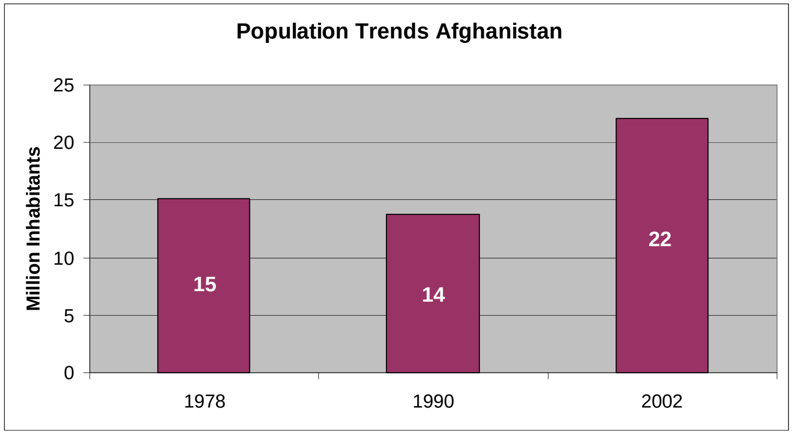
Next Phase

Short-Listing of Opportunities

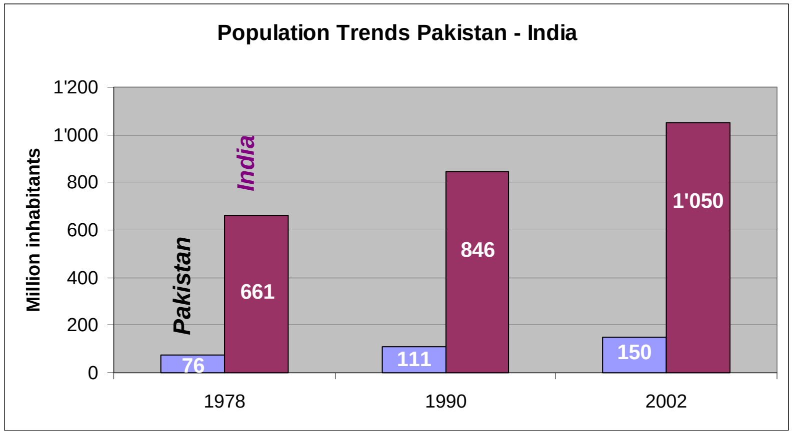
Population and GDP trends

Demand for horticulture products is driven by increased population in the past 25 years and recent GDP increase per inhabitants

8 millions population increase over the past 25 years in Afghanistan



Nearly half a billion population increase in India and Pakistan over the past 25 years



AFGHANISTAN : 20% GDP increase in 1383/2003 (174 $/inhabitant)

Short-Listing of Opportunities

Criteria for selection of opportunities

CRITERIA	OUTPUT
• Volume of existing production	Production Value in Million US$
• Market size • Price opportunities • Quality requirements • Crop calendar • Logistic constraints	Marketability
• Potential Analysis of Afghanistan Regions	Comparative advantages of Afghanistan regions

Short-Listing of Opportunities

Example: Grape

TURK-UZB-TAJ

0.8 Million MT
Price: 176 $/MT
Exports: Yes

TURKEY

3.85 Million MT
Price: 250 $/MT
Export: Yes

AFGHANISTAN

Production ~ 520,000 MT/year

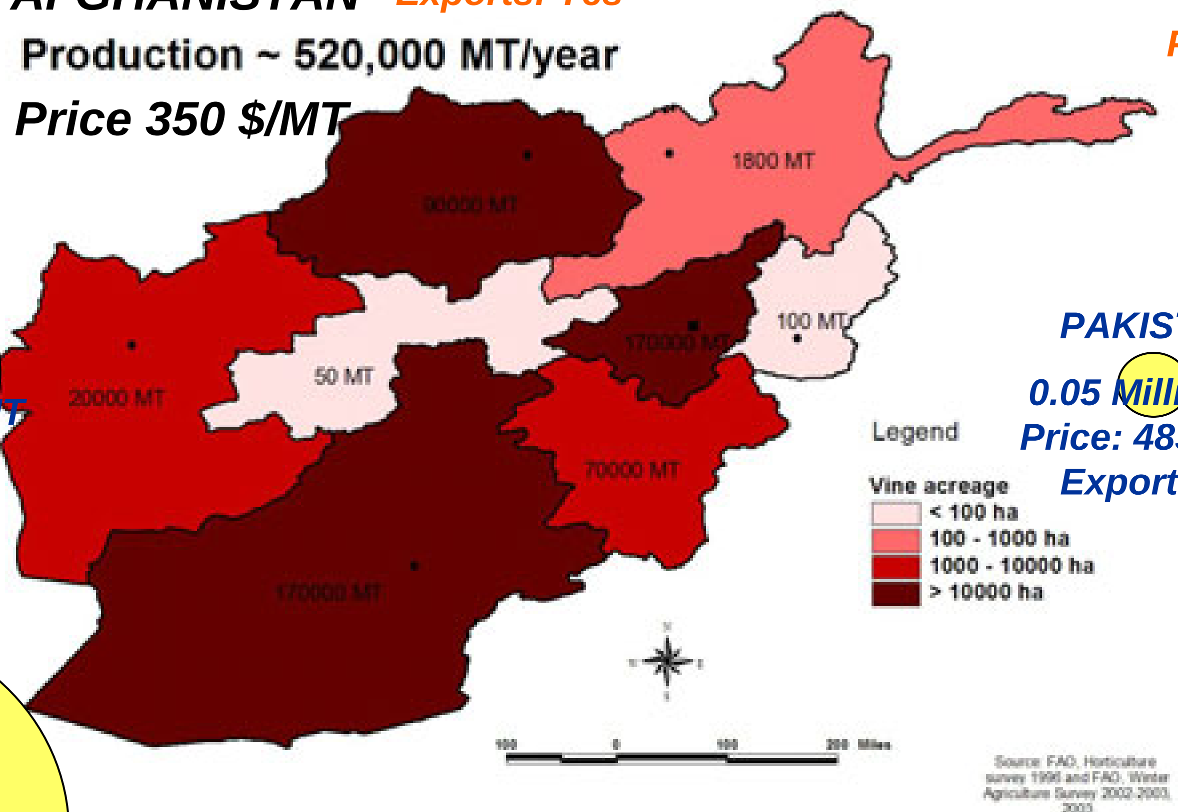
Price 350 $/MT

CHINA

No Data MT
Price: 223 $/MT
Export: Yes

IRAN

2.53 Million MT
Price: 300-450 $/MT
Export: Yes



PAKISTAN

0.05 Million MT
Price: 483 $/MT
Export: No

INDIA

1.2 Million MT
Price: 176 $/MT
Export: Yes

US
6.1 Million MT
Price: 447 $/MT
Export: Yes

Short-Listing of Opportunities

Example: Walnut

TURKM-UZBEK-TAJIK

5,000 MT
Price: 1500 $/MT
Export: Yes

CHINA

360,000 MT
Price: 720 $/MT
Export: Yes

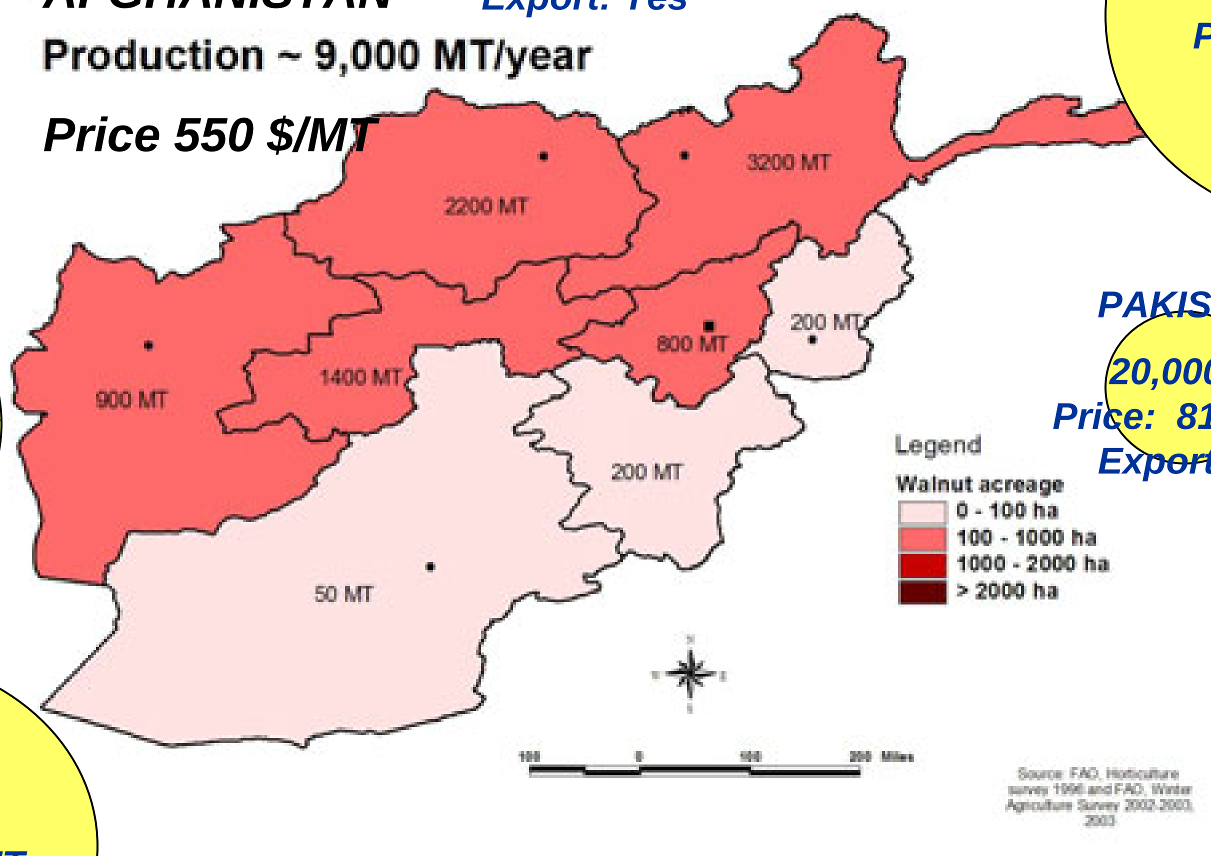
TURKEY

125,000 MT
Price: 1100 $/MT
Export: No

AFGHANISTAN

Production ~ 9,000 MT/year

Price 550 $/MT



IRAN

160,000 MT
Price: 1200 $/MT
Export: Yes

PAKISTAN

20,000 MT
Price: 810 $/MT
Export: No

INDIA

31,000 MT
Price: 380 $/MT
Export: Yes

US

295,000 MT
Price: 1100 $/MT
Export: Yes

Short-Listing of Opportunities

Example: Tomato

TURKM-UZBEK-TAJIK
1.4 Million MT
Price: 490 $/MT
Export: Yes

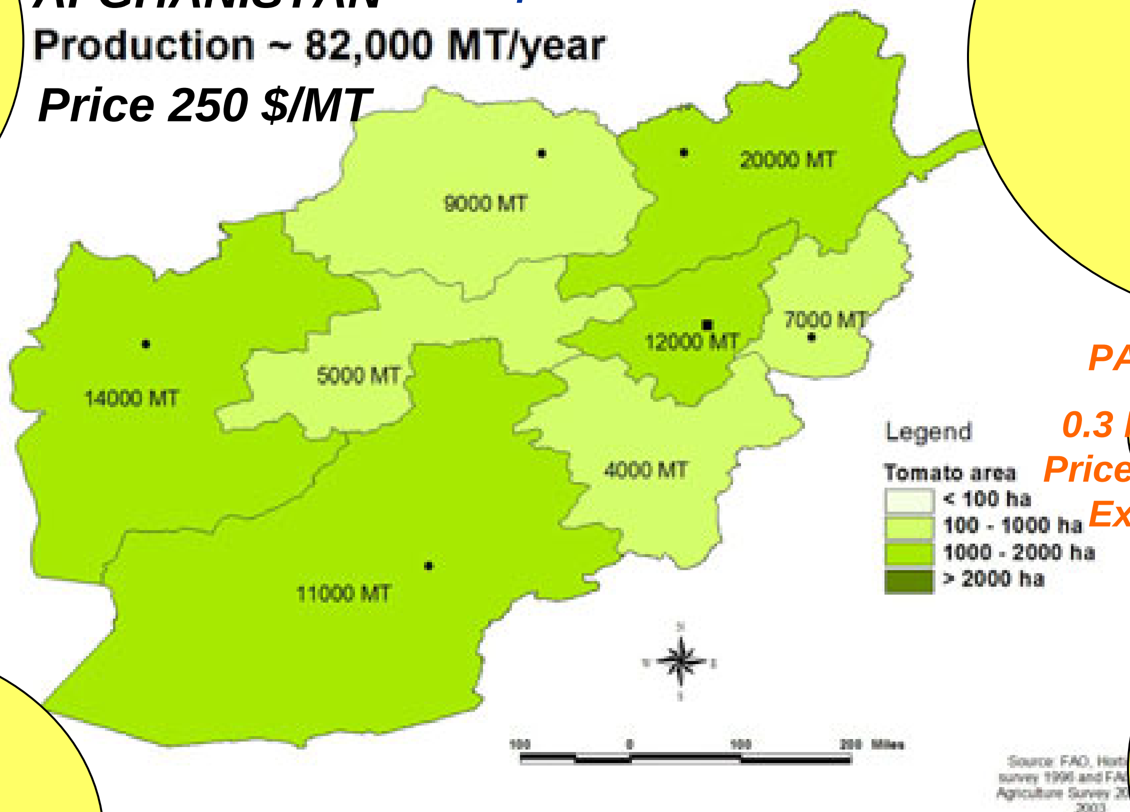
TURKEY
9 Million MT
Price: 195 $/MT
Export: Yes

AFGHANISTAN
Production ~ 82,000 MT/year
Price 250 $/MT

CHINA
25 Million MT
Price: 90 $/MT
Export: Yes

IRAN
3 Million MT
Price: 345 $/MT
Export: Yes

PAKISTAN
0.3 Million MT
Price: 210 $/MT
Export: No

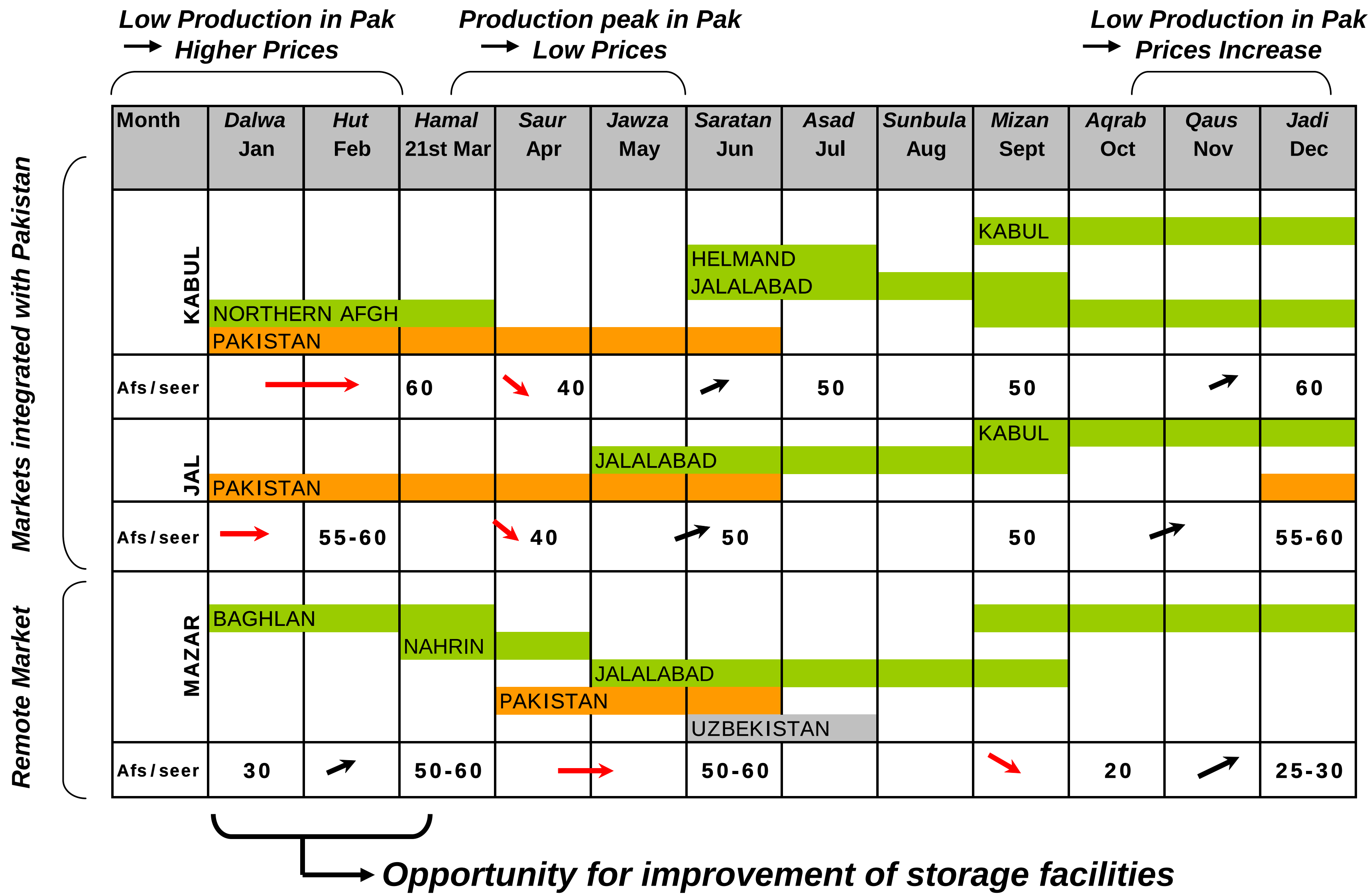


INDIA
7.4 Million MT
Price: 165 $/MT
Export: Yes

US
12 Million MT
Price: 670 $/MT
Export: Yes

Short-Listing of Opportunities

Example: Crop calendar - Onion



Short-Listing of Opportunities

Example: Crop calendar - Tomato

Low Prices when Afghanistan starts producing

Production peak in Pak → Low Prices

Low Production in Pak → Prices Increase

	Month	*Dalwa* Jan	*Hut* Feb	*Hamal* 21st Mar	*Saur* Apr	*Jawza* May	*Saratan* Jun	*Asad* Jul	*Sunbula* Aug	*Mizan* Sept	*Aqrab* Oct	*Qaus* Nov	*Jadi* Dec
Markets integrated with Pakistan	KABUL	PAKISTAN					JALALABAD	MAZAR	KABUL				
	Afs/seer	130		90			50		30				70
	JAL	PAKISTAN					JALALABAD		KABUL				
	Afs/seer	120		80			40		40	80			100
Remote Market	MAZAR			PAKISTAN			MAZAR		KABUL				
	Afs/seer	300		300		280		50		150			150

Opportunity for plastic tunnels to extend production period at the end of the season

Short-Listing of Opportunities

Example: Crop calendar - Apple

Prices decrease as apple quality deteriorates in late spring

Apple imported from cold storage In Pakistan (mainly Quetta)

Markets integrated with Pakistan

Month	Dalwa Jan	Hut Feb	Hamal 21st Mar	Saur Apr	Jawza May	Saratan Jun	Asad Jul	Sunbula Aug	Miza Sept	Aqrab Oct	Qaus Nov	Jadi Dec
KABUL	WARDAK	WARDAK	WARDAK							WARDAK	WARDAK	WARDAK
								LOGAR	LOGAR	LOGAR		
		PAKISTAN	PAKISTAN	PAKISTAN	PAKISTAN	PAKISTAN						
Afs / seer	170		200			150		150		150		160
JAL	WARDAK	WARDAK	WARDAK								WARDAK	WARDAK
				PAKISTAN	PAKISTAN	PAKISTAN						
Afs / seer	200		200			150		150		150		160
MAZAR						MAZAR		MAZAR				
										WARDAK	WARDAK	WARDAK
		PAKISTAN	PAKISTAN	PAKISTAN	PAKISTAN							
Afs / seer	320			300		210		210		280		

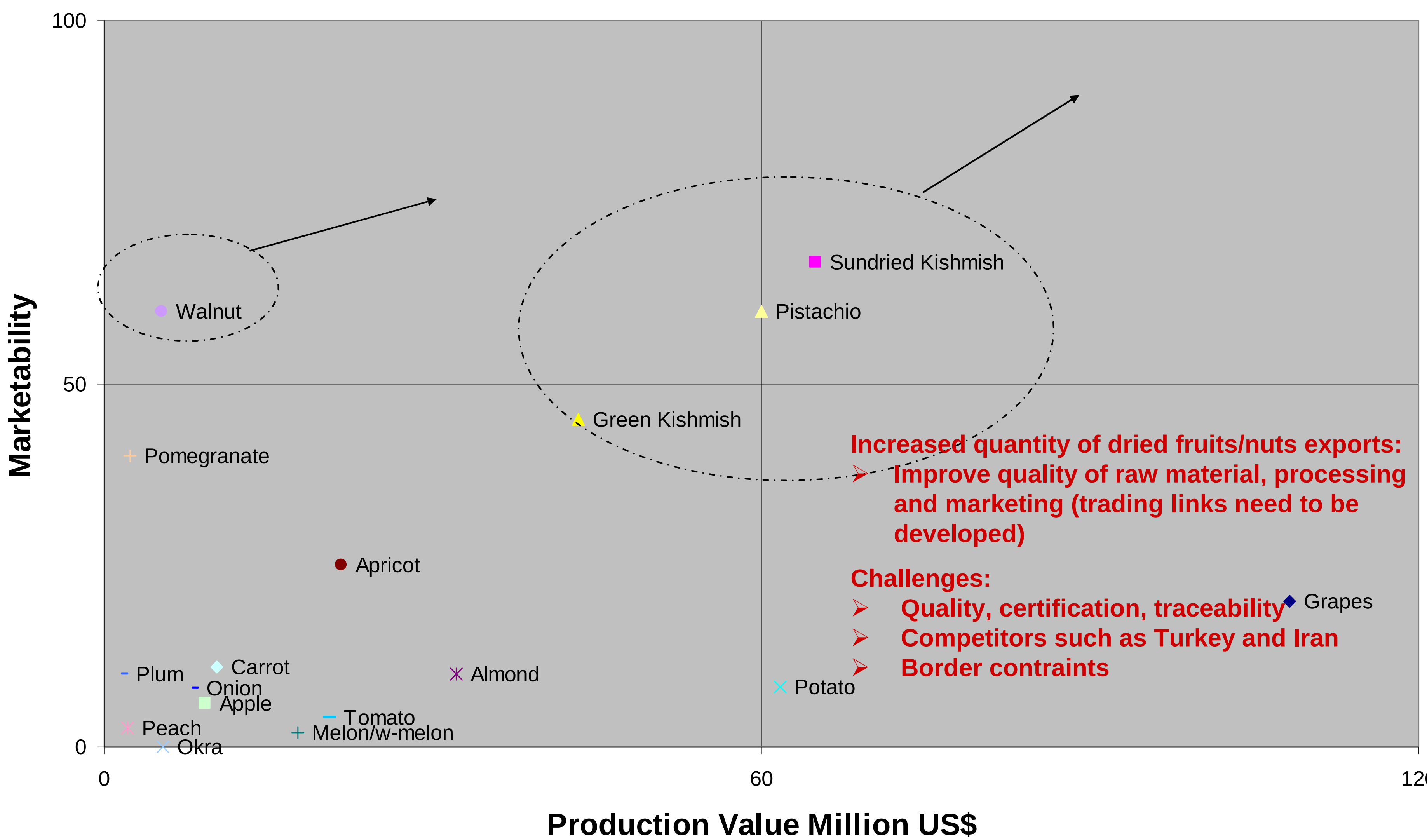
Remote Market

Opportunity for establishing cold storage facilities

Short-Listing of Opportunities

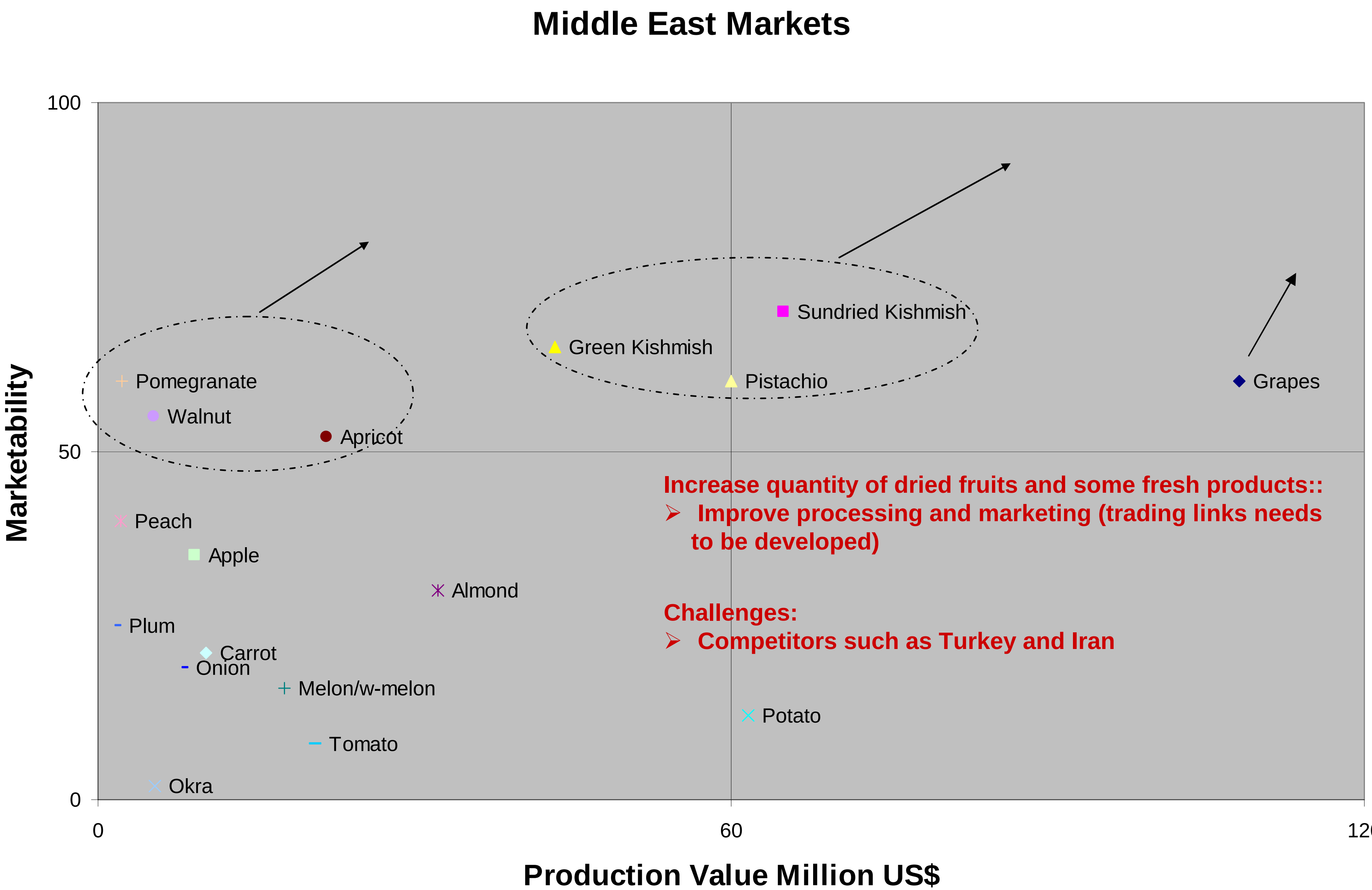
Global markets - Western markets

US, EU and Russia Markets



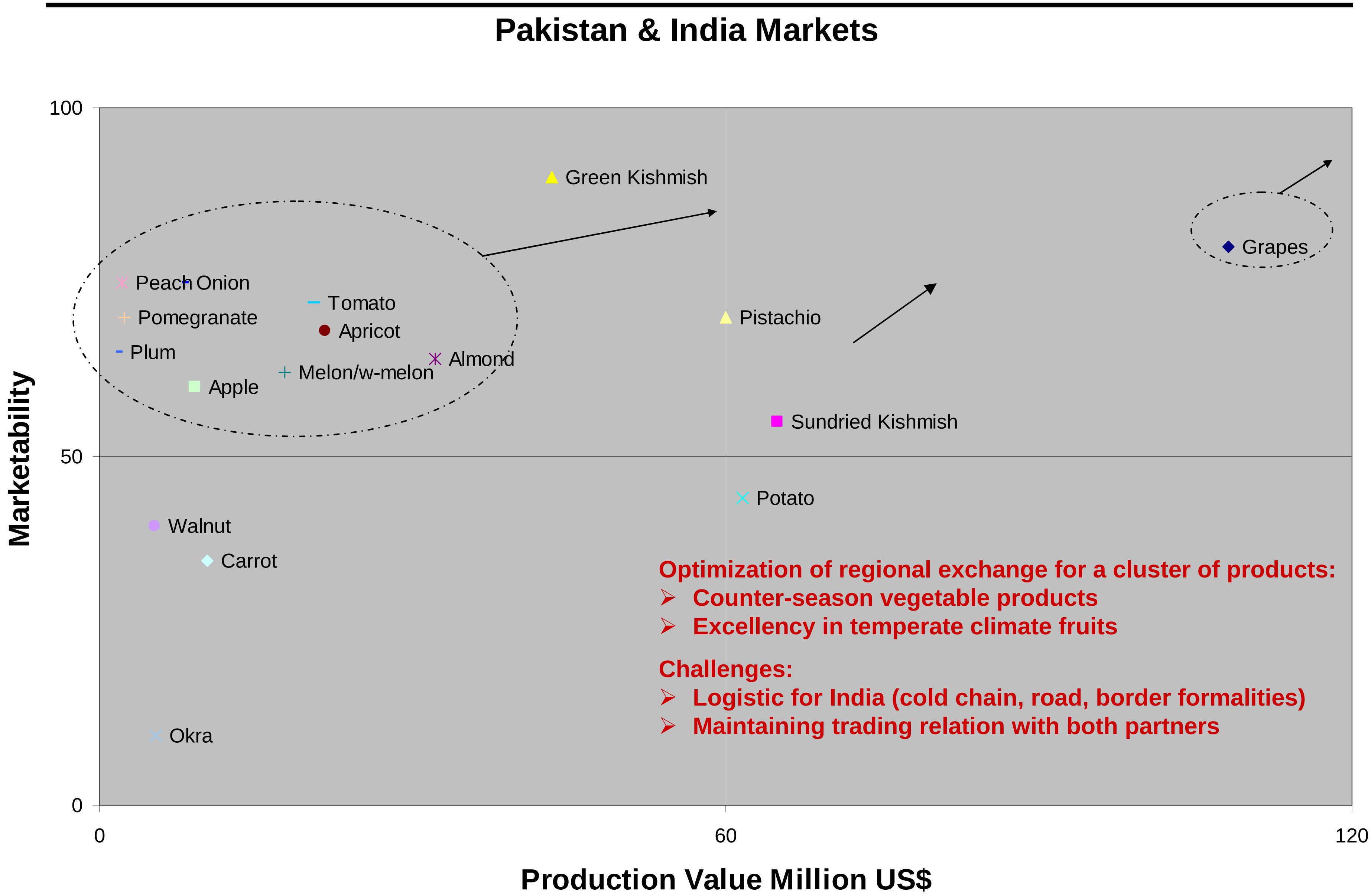
Short-Listing of Opportunities

Regional markets – Middle East

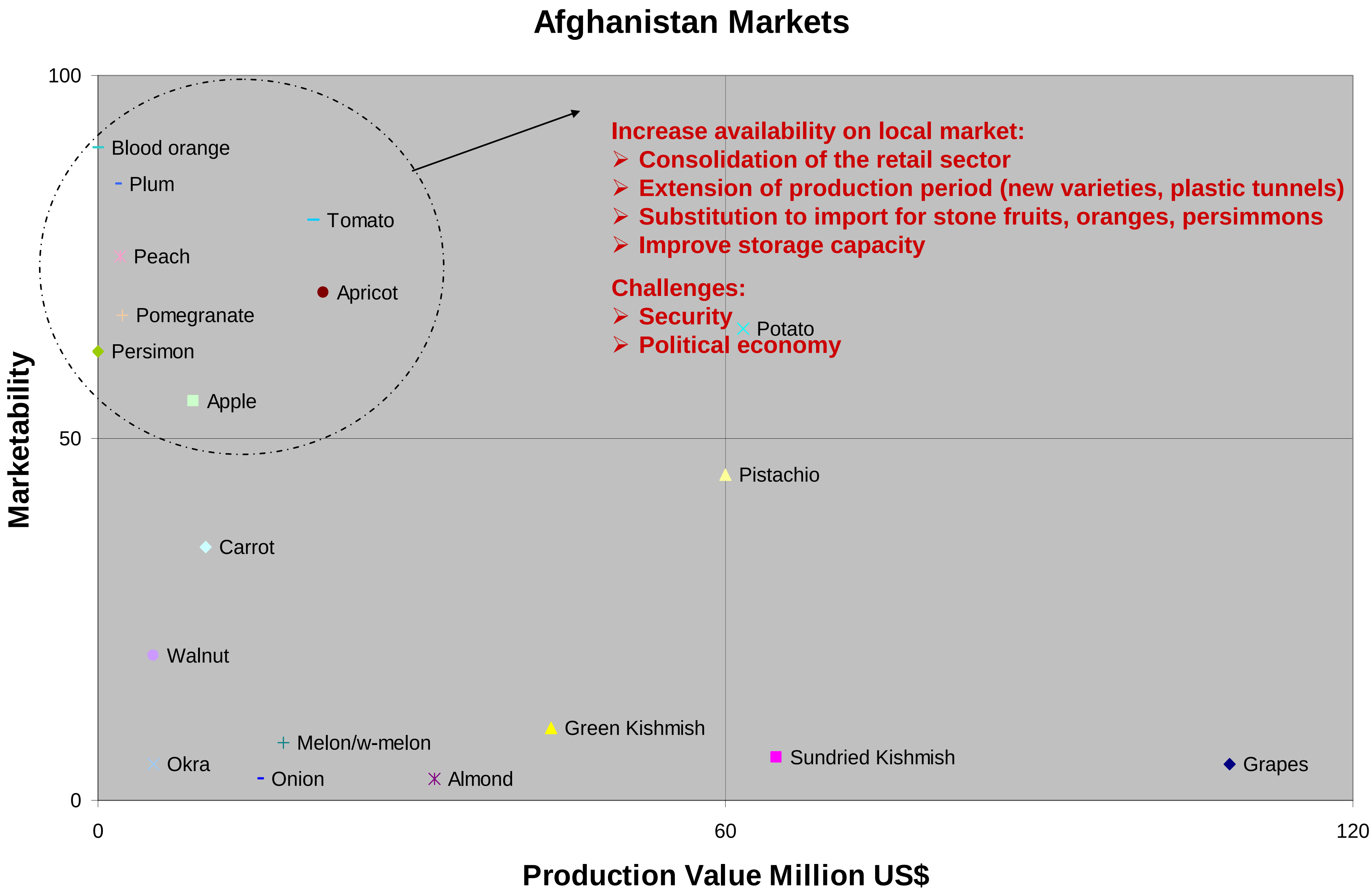


Short-Listing of Opportunities

Regional markets – Pakistan & India



Short-Listing of Opportunities
Local market – Afghanistan

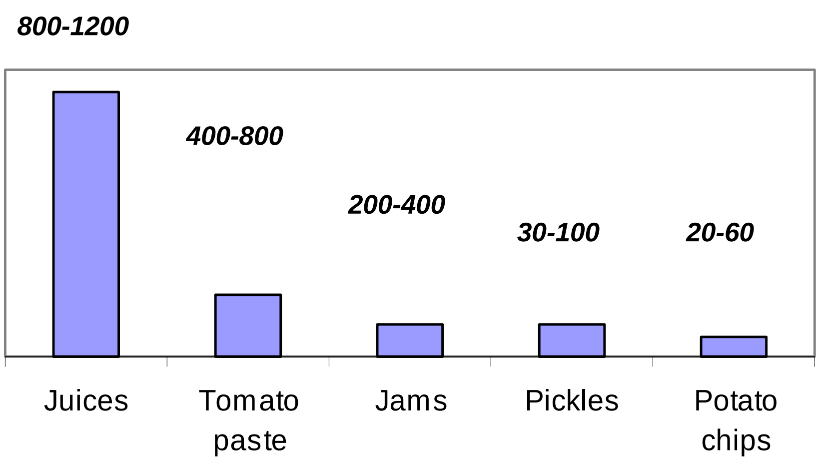


Short-Listing of Opportunities

Processed products

Processed products are a sizeable import market

Market size of selected transformed products in Afghanistan in Million Afs



- Processed fruits and vegetables represent around **1.4 to 2.5 billion Afghani** (US$ 28-60 million) market (estimation)
- Juices and tomato paste are the biggest share (75% of trade)

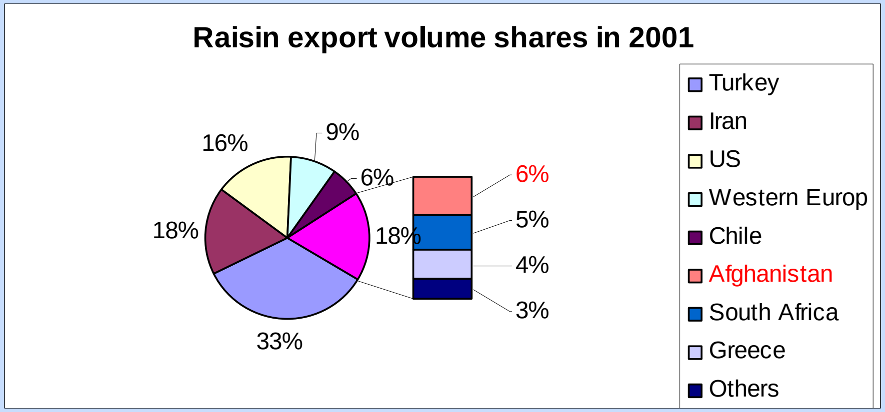
- No food processing industry in Afghanistan today
- Most processed products are imported from neighboring countries (Pakistan, Iran)

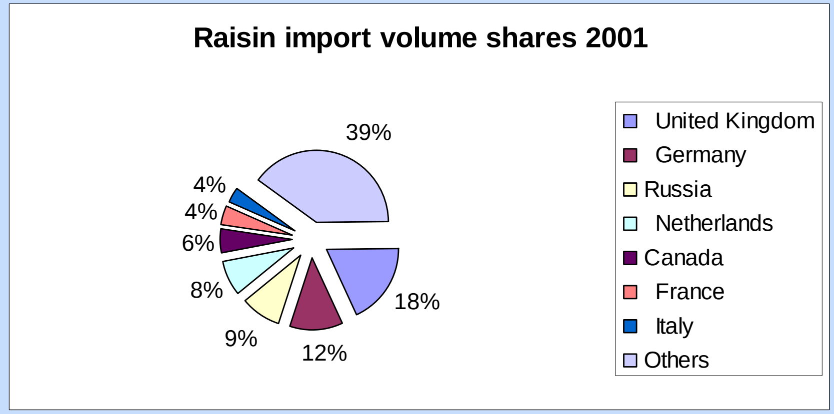
Short-Listing of Opportunities

Short-list

GLOBAL MARKET	Dried Fruits and Nuts	1. Raisins and apricot processing and packaging 2. Fair trade and Organic
REGIONAL AND LOCAL	Fresh Products	3. Commercial horticulture crops for stone fruits, pomegranate, blood orange, persimmon, walnuts 4. Storage facilities for temperate fruits and vegetables (apple, grape, tomato) 5. Plastic tunnels to extend availability of vegetable (tomato, cucumber, okra …)
	Processed Products	6. Processing plants for fruits juices, fruits concentrates, tomato sauce and potato chips 7. Commercial horticulture crops for processed products (juices, …)
	Marketing Improvement	8. Plastic/carton plant for production of boxes for fruits packaging 9. Consolidation of the retail sector (through the establishment of super markets)

Short-Listing of Opportunities
Quality products - Sundried raisins





- About **560,000 tons** of sundried raisins are traded yearly (estimate)
- Most sundried raisins are exported to western countries to be used in the **baking industry** (80% of use in Europe)
- “More than taste, our first concern is the cleanliness of the raisin”, Alexis Sumar, Voiceval’s CEO
- “ 99.9% of the raisins come from Turkey (…) Their plants are equipped with Elbiscan lasers.
- “There will be no purchases from Afghanistan is there is no quality AND price advantage”, Purchasing Manager of a leading international agribusiness group

Short-Listing of Opportunities

Quality products – Dried fruits processing factory

Strengths

- Variety potential
- Existing sizeable production
- Ideal climatic conditions for drying

Weaknesses

- Afghan raisins needs 2 to 3 washings
- Production techniques not satisfying, high investment needed to match competition/requirements
- Outdated processing facilities
- Know-how is mostly geared toward the Russian market

Opportunities

- Possibility of vertical control of the product chain
- Modern plants at accessible prices are now available to target global markets
- Investments on existing factories
- Growing organic and fairtrade markets
- Afghanistan as a brand

Constraints

- Volume/Price driven markets
- Russia tempted to move towards higher quality standards
- Threats of Uzbekistan and Tadjikistan (exports multiplied by 4 since 1997)
- Certification requirements for western markets

Short-Listing of Opportunities

Commercial crops

Strengths

- Accessible to medium and large farmers/land lords
- Afghans are habile farmers
- Farmers are interested in diversifying their crop
- Regulate supply of horticultural products

Weaknesses

- No research in-situ in commercial horticulture crops
- Lack of cultivation practices knowledge for commercial crops
- Identification of interested farmers ready to take risks
- Fragmented market distribution chains

Opportunities

- Increase productivity
- IF Hope in Jalalabad produces 2 million fruit trees seedlings for which commercial crops could be established
- Experience and research applicable in neighboring countries (Iran, Pakistan, CIS countries) and other dry countries

Constraints

- Security
- Irrigation water insecurity (drought)
- Speculative market

Short-Listing of Opportunities

Plastic tunnels

Strengths

- Accessible to small farmers (vulnerable population groups)
- Not expensive to establish
- Seasonality of horticulture products

Weaknesses

- Availability of good quality material is uncertain
- Identification of interested farmers ready to take risks

Opportunities

- Increase of vegetable prices at the end of the growing season
- Experience in Vietnam

Constraints

- Security
- Early and late frost
- Speculative market

Short-Listing of Opportunities

Fruit juice market

Fruit juices are a growing mass-market product in Afghanistan

Short-Listing of Opportunities

Processed horticulture products - Juices

The increasing fruit juices market offers high opportunities for Afghanistan

- The market of fruits juices in Afghanistan is estimated at between **800 and 1,200 Million Afs** for around **30-45 Million Liters** with a yearly growth of around 15%
- Currently, all the fruit juices of Afghanistan are imported. Mainly from Iran (47%), Pakistan (41%), UAE (8%), Uzbekistan and Turkey
- At least 27 brands are present on the Afghan market. **6 of them hold 80% of the market**

Opportunities

- Local interest for juices
- Growth potential with income per capita, urban population and consumption trends
- Potential advantage for a national brand
- Regional demand for fruits concentrates
- Possibility to combine investment with a bottling factory

Constraints

- Increasingly competitive market between brands available in Afghanistan
- Iran is positioned in selling pomegranate, grape and apricot concentrates
- Very competitive prices of fruits in Pakistan where processing is located
- Need reliable supply from commercial orchards

Short-Listing of Opportunities
Processed horticulture products – Tomato

Tomato processing is another opportunity to explore

- Tomato paste, sauce, ketchup
- The market of processed tomato in Afghanistan is estimated at **400 to 800 million Afs**
- Currently most products are imported from Iran (and Pakistan to a lesser extent)

Opportunities

- Growing demand
- Valuable use of varieties of tomatoes that are not suitable for transports

Constraints

- Low quality, price competitiveness of current production
- Raw material is cheaper in neighboring countries (e.g. tomatoes are about 20% cheaper in Pakistan than Afghanistan)
- Little opportunity for export

Short-Listing of Opportunities

Plastic/carton industry for fruit packaging

Strengths

- Plastic/carton Industry uses well known technology
- Increase quality and hygiene of horticulture product

Weaknesses

- Arguably less environment friendly than wooden crates
- New industry in the country

Opportunities

- Increased demand for strong and clean packaging implements with the sophistication of horticulture markets
- Facilitates access for Afghan horticultural product to foreign/international markets
- Reduce losses of horticultural products
- Demand for storage boxes for non-horticultural products traded in the market and at home
- Experiences in other countries

Constraints

- Security is a challenge for the establishment of a factory
- Electricity supply
- Acceptability of new packages to traders in Afghanistan and abroad

Short-Listing of Opportunities

Consolidation of the retail sector

Strengths

- Scale economy (price) and stronger bargaining power with producers/importers
- Attract consumers with better quality products at low prices
- Contractual agreements between farmers and retailers which allows focus on quality
- Comparatively lower risks for investor than high tech processing plants

Weaknesses

- Conflicts with retailers and importers **-** Losses of income for thousands of retailers
- Lack of existing facilities (cold chain, logistic)

Opportunities

- Sophisticated competition does not exist yet
- Increasing urban population and GDP
- Experiences in other countries
- Shopping centers being constructed in various parts of the country

Constraints

- Security is a challenge for changes in the marketing sector
- Reliability of the supply chain

Agenda

Project Presentation

Global Market

Production and Marketing in Afghanistan

Short-Listing of Opportunities

Next Phase

Feasibility study and business plans

Short-list

GLOBAL MARKET	Dried Fruits and Nuts	1. Raisins and apricot processing and packaging 2. Fair trade and Organic
REGIONAL AND LOCAL	Fresh Products	3. Commercial horticulture crops for stone fruits, pomegranate, blood orange, persimmon, walnuts 4. Storage facilities for temperate fruits and vegetables (apple, grape, tomato) 5. Plastic tunnels to extend availability of vegetable (tomato, cucumber, oka …)
	Processed Products	6. Processing plants for fruits juices, fruits concentrates, tomato sauce and potato chips 7. Commercial horticulture crops for processed products (juices, …)
	Marketing Improvement	8. Plastic/carton plant for production of boxes for fruits packaging 9. Consolidation of the retail sector (through the establishment of super markets)

Contacts

Authors

For further information, please contact:

- **Rodolphe Baudeau, Altai Consulting, Director, rbaudeau@altaiconsulting.com**
- **Raphy Favre, Horticulturist, rfavre@altaiconsulting.com**
- **Hakara Tea, Consultant, htea@altaiconsulting.com**
- **Mathieu Beley, Consultant, mbeley@altaiconsulting.com**
- **Violaine Mercier, Agronomist, vmercier@altaiconsulting.com**