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# **The Role of Global Value Chains in Agribusiness SME Development: Applied to Central Asia**

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# Outline

- **Setting the Scene**
  - Key elements and trends in global and regional agribusiness and value chain development
  - Implications for SMEs in the Central Asia
- **Agricultural value chain defined**
- **Regional development factors impacting on SME agribusiness in Central Asia**
- **Case Study: Wool Processing**

# Setting the Scene

- **Current trends in global agribusiness**
  - **Concentration and consolidation**
  - **Vertical / horizontal integration & globalization**
- **Central Asian Regional development factors**
- **Questioning of the GMS development paradigm**



## Setting the Scene

### Trends: Global Agribusiness Concentration and Consolidation

**Global value chains are impacted by lower cost producers in North America resulting from:**

- **Increase in market concentration in nearly all agricultural sectors.**
  - **Livestock**. In 2004, the four largest beef firms processed 81% of all the cattle; the four largest pork firms process 59% of pork; and four chicken firms process 50% of all broilers
- **Emergence of vertically and horizontally integrated multinational food and agricultural corporations.**
  - **Grains**. The four largest wheat processors have 61% of the market; the four largest soybean processors have 80% of the market
- **Consolidation of retailers / who also may be producers**

Setting the Scene  
**Concentration and Consolidation**  
**Five Top Grocery Retailers in the USA**

<u>1997</u>	<u>2000</u>	<u>2003</u>
<b>Kroger</b>	<b>Kroger</b>	<b>Walmart</b>
<b>Safeway</b>	<b>Walmart</b>	<b>Kroger</b>
<b>American Stores</b>	<b>Albertson's</b>	<b>Albertson's</b>
<b>Albertson's</b>	<b>Safeway</b>	<b>Safeway</b>
<b>Ahold USA (TOPS)</b>	<b>Ahold USA (TOPS)</b>	<b>Ahold USA (TOPS)</b>
<b>Top 5 = 24%</b>	<b>Top 5 = 42%</b>	<b>Top 5 = 54% (est.)</b>
Top 5 is percentage of <u>market share</u> held by 5 top retailers		Source: Research conducted by the National Farmers Union, USA, 2004

# Setting the Scene

## Vertical Integration and Globalization – Case of Walmart

### Processors:

- Tyson's Food
- IBP, Inc.
- Farmland Foods
- Smithfield



Poultry

Beef

Pork

Retailer: Walmart

### Walmart operations in:

- **United Kingdom (#3)**
- Germany
- Argentina
- Brazil
- Canada
- Mexico
- China
- Korea
- **United States (#2)**

## Setting the Scene

### Trends: Global Agribusiness Concentration and Consolidation

- **Consolidation of agribusiness multinationals is creating large agroindustrial operations that pay less for raw materials & production inputs.**
- **Only in certain niche markets can Asian farmers still compete**
  - **These too will decrease as the North American Free Trade Agreement (NAFTA) expands to include Asian competitors in Central America and the Caribbean.**

# Setting the Scene:

## Regional Development Factors

with implications for farmers & SMEs in Central Asia seeking access to global value chains for food & agricultural products

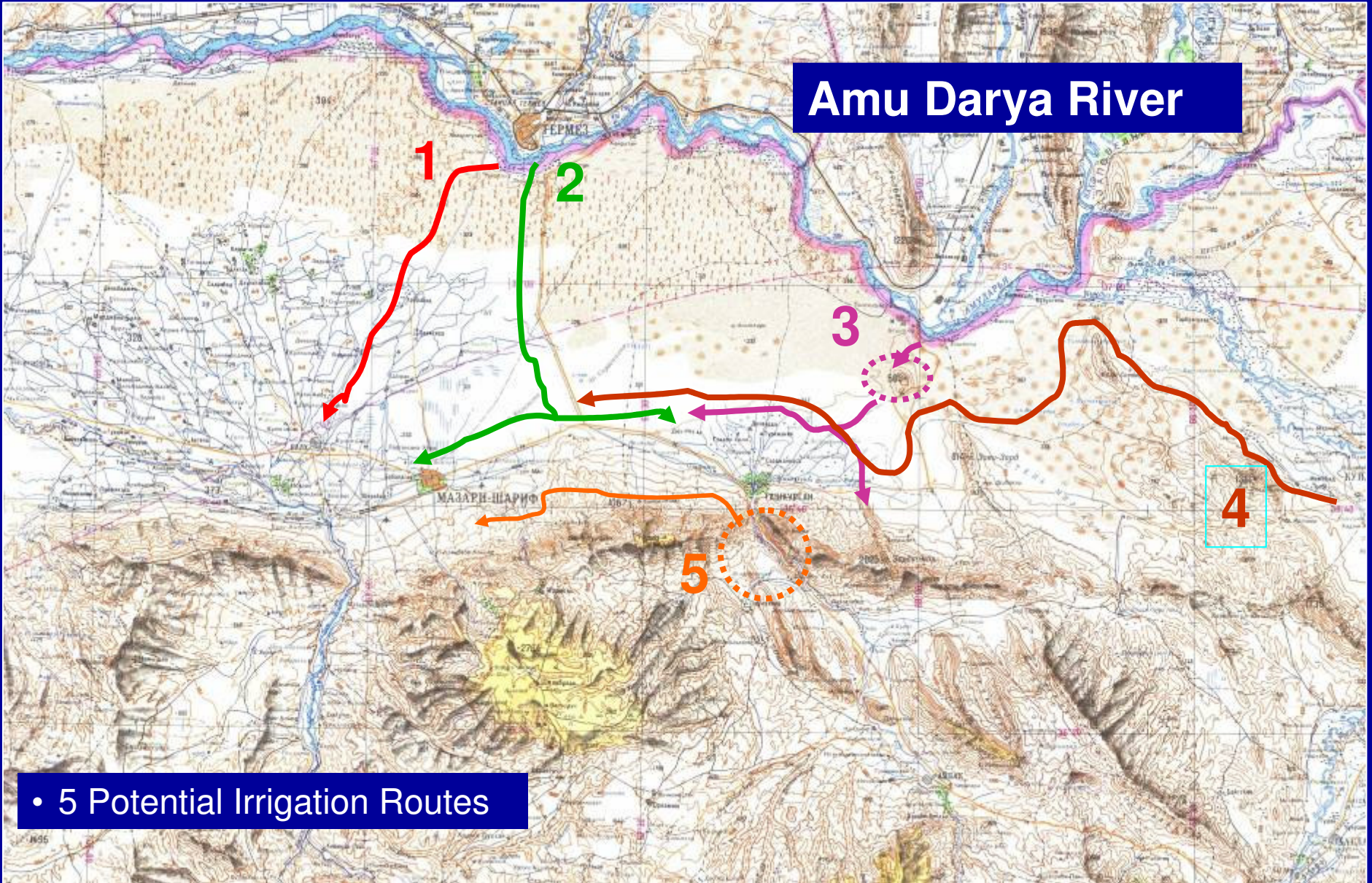
- **Improved communications & transportation corridors**
- **Emergence of middle class consumers with changed tastes and preferences in China, India, Iran, Pakistan**
- **Trade liberalization (impacts of the WTO)**
- **WTO membership for China & eventually Russia with new legal obligations**
- **China's & India's obligations to impose SPS standards on products from neighboring countries; subject to supply side audits**
- **Use of the Amu Darya River for increasing agricultural production**



# Setting the Scene - Northern Afghanistan

Contour Map 1:10,000

Amu Darya River



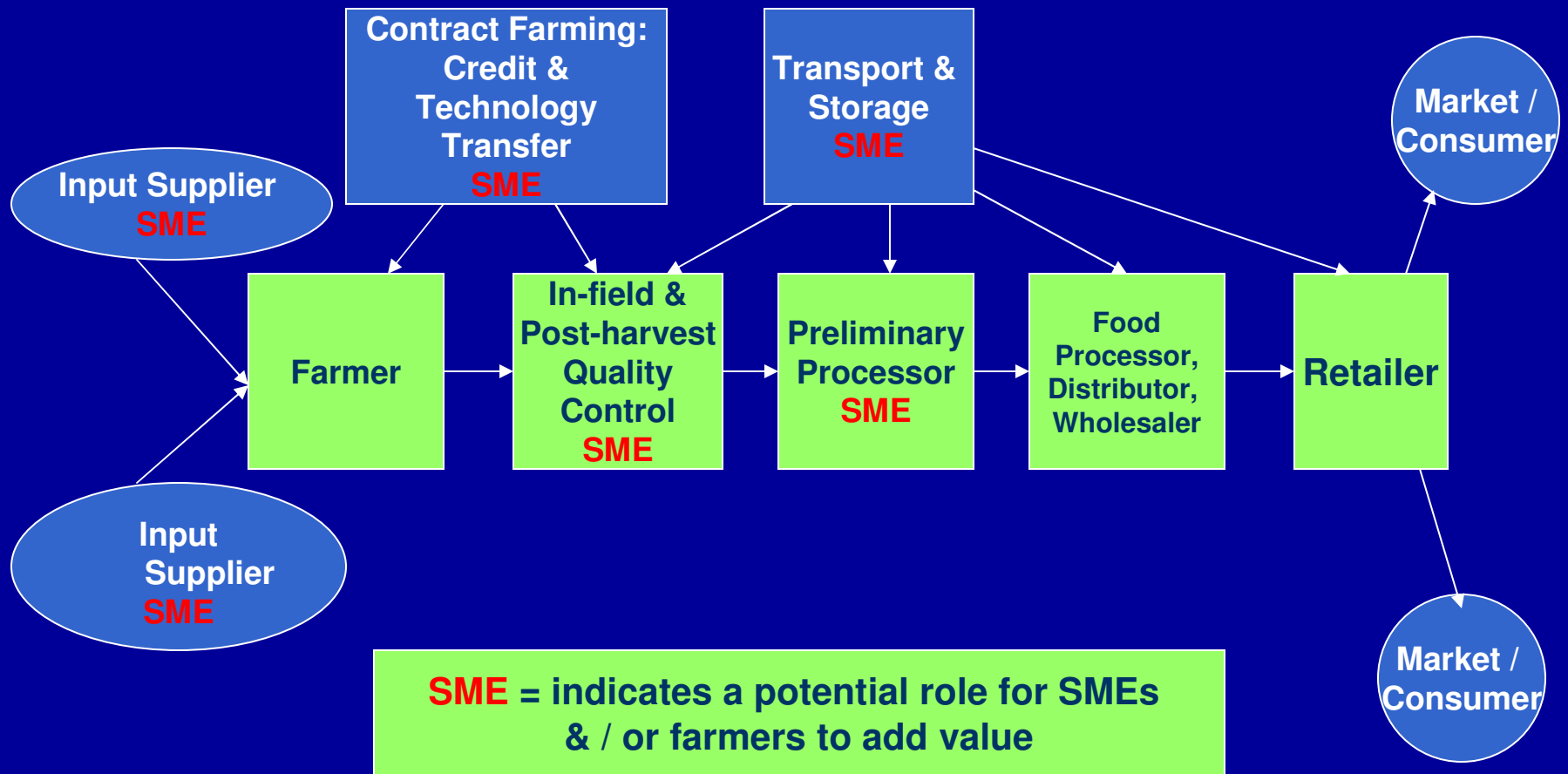
- 5 Potential Irrigation Routes

# Hypothesis

- **Link smallholder farmers to regional & global value chains through contract farming**
  - Linkages with local & regional SMEs that can have downstream linkages to transnational & multinational companies and retailers
  - “upgrading” in the agro-industry value chain as a key means of strengthening competitive position and revenue generation, e.g. improvements in production process, in product quality, in processing functions (e.g. from production to “product design”).



**A value chain is a string of agro-enterprises working together to satisfy market demand for a particular product.**



# Case Study: Wool Processing Facility



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# Proposed Value-added Project

## *Wool Processing Facility*

### Key Issues

- Demand for higher quality wool for local carpet industry
- Low yield of local yarn due to lack of modern shearing and other wool processing methods



*Hand shearing with traditional shearing knife*



*No grading, and scouring (cleaning)*



*Export to be yarned in neighboring countries*

- Export of pre-finished wool to be processed and value added in the factory of neighboring countries, before re-import to supply regional carpet factories
- Require moderate amount of investment
- Labor intensive industry, hence generating employment and income for local people
- Add value to sheep owners
- Work opportunity for female workers

# Proposed Value-added Project

## Wool Processing Facility

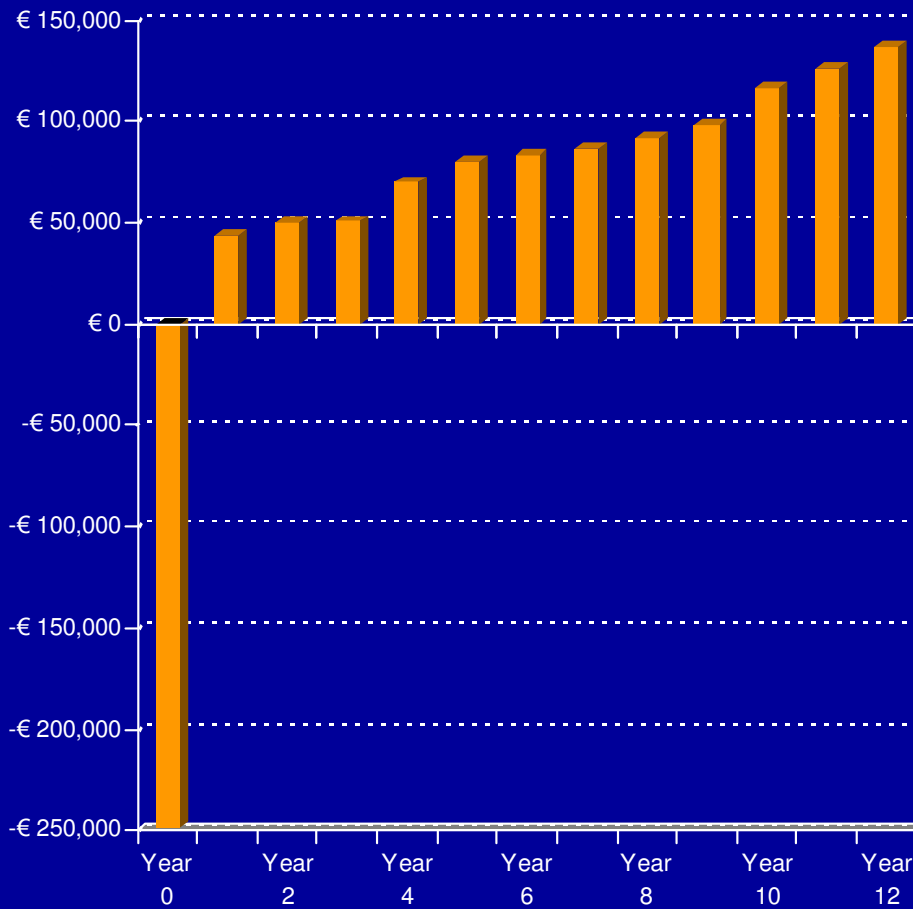
**Total Investment amounted to Euro 253,022**

Investment items	Expected budget	Note
Wool processing factory building	€ 166,710	Building share with pelt processing - ratio use 67/33 for wool/pelt, construction cost split at same ratio.
Two heavy-loaded trucks	€ 46,800	
Two electricity generators	€ 9,360	To install in the mobile shearing truck to provide electricity for the handheld shearer units.
Handheld sheep shearers	€ 7,800 (+ € 23,400)	Initial invest in 25 sets of shearer (€ 234 each). Invest the same amount in year 3, 6 and 9. Also include the modification of truck for shearing
Spinning yarn equipment	€ 3,900	Hand spinners (estimated
Other equipments	€ 3,900	US\$500 each) Including scouring, carding
One pick-up van	€ 2,730	process For the factory manager to supervise the operation and other activities. (50/50 share with pelt processing unit)
Contingencies and Reserves	€ 7,800	
Initial working capital	€ 4,022	To provide cash liquidity and reserve for the start-up phase.

# Proposed Value-added Project

## Wool Processing Facility

Net Cashflow - Wool Processing Project



### Outcome – Investment Perspective

- 12-yrs Internal Rate of Return at 25.05%
- Payback period of 4.85 years
- Ending accumulated cash (year 12) estimated at € 1.014 millions

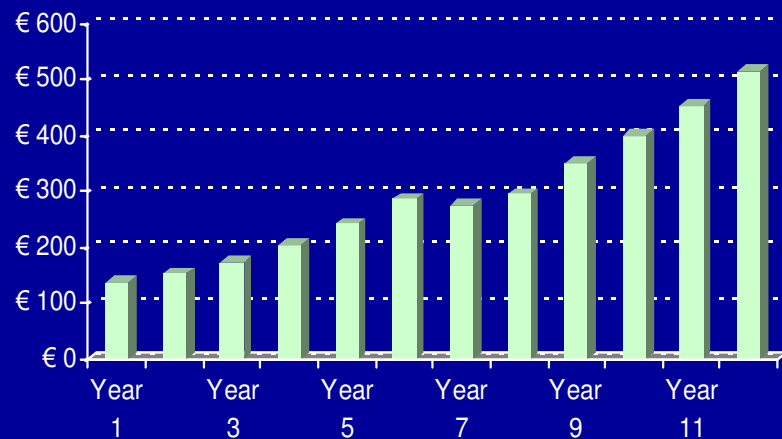
### Feasibility Study – Key assumptions

- Sheep available for shearing = >1 year old ewes (female sheep)
- Yield of raw wool per sheep = 2 Kg.
- Raw wool purchased price = € 0.4457 per Kg.
- %Yield of yarn to raw wool = 38.03%
- Average market yarn price = € 3.12 per Kg.
- Skilled labor wages = € 3.12 per day, with 5% annual increase
- Income tax exemption granted

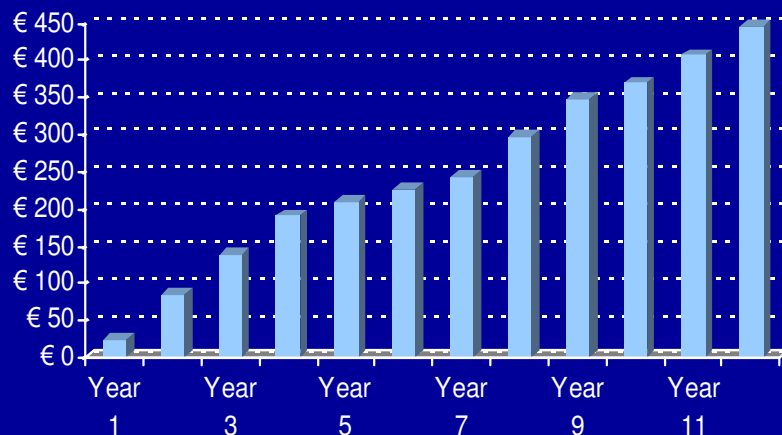
# Proposed Value-added Project

## Wool Processing Facility

Average Annual income of each original sheep owner



Average Annual income of participated grassroots families



## Outcome – Benefits to original sheep owners

- 300 sheep owners (100 sheep/flock)
- Shearing service from mobile units
- Sale of raw wool at price € 0.4457/Kg
- Average annual income from selling wool ranged from € 139 in year 1 to € 516 in year 12

## Outcome – Benefits to participated grassroots families

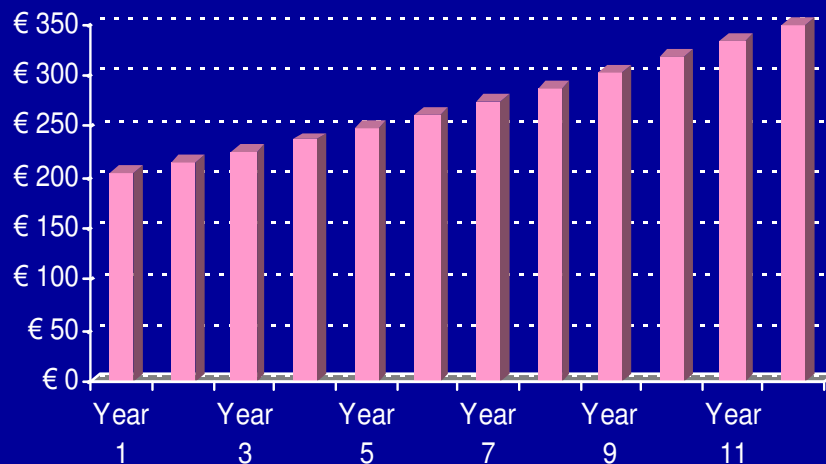
- 50 families (30sheep/family) / participants
- Shearing service from mobile units
- Sale of raw wool at agreed price € 0.4457/Kg
- Average annual income from selling wool ranged from € 25 in year 1 to € 446 in year 12



# Proposed Value-added Project

## Wool Processing Facility

Average Annual income of labor employed by wool processing factory



### Outcome – Benefits to new employees

- Generate between 60 to 240 jobs during year 1 and year 12
- Jobs include shearing, scouring, carding, and spinning, which will be especially suitable for female workers within the community.
- Wage rate = € 3.276 per day in year 1 with 5% annual increase
- Average annual income ranged from € 205 in the 1st year to € 350 in the 12th year will be given to these workers

# Conclusions & Recommendations

## Conclusions

- **Significant concentration and consolidation among European and American agribusiness firms and food retailers.**
  - Although major movement continues to be in Europe and North America, China and Korea appear to be high priority areas for consolidation; India & Pakistan cannot be far behind
- **Retailers can now dictate terms to SME manufacturers forcing changes back through the system to the farm level.**
  - At the same time, this can provide opportunities for agribusiness SMEs in Central Asia
- **Major factors facilitating SME agribusiness development in Central Asia:**
  - Improved infrastructure, both transport & irrigation
  - Re-opening of old trade routes
  - Liberalized trade
  - Changes in consumer tastes in neighboring countries
  - CAREC regional cooperation can strengthen capabilities of CAREC country firms to participate in GVCs through joint training (e.g., of SMEs), information sharing, regional certification and accreditation institutions, harmonized processes, and logistics cooperation

# The End

Thank you



## Amu Darya Basin