



Investment proposal:  
Nut agro cluster – walnut and pistachio plantation on arid hills  
with a processing complex

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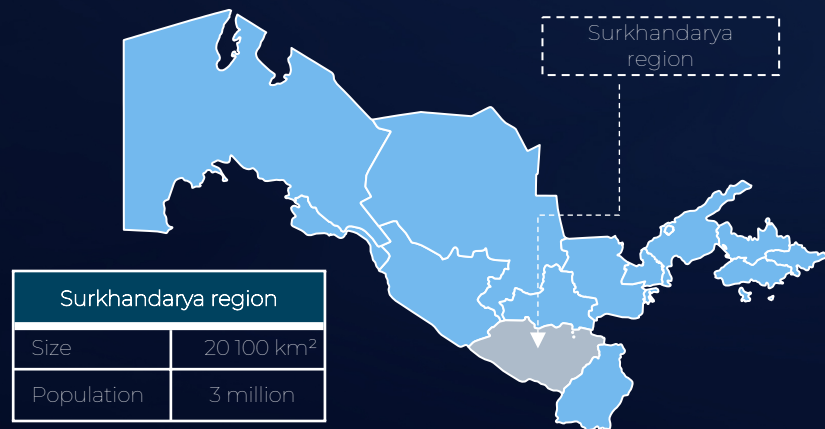
## Economic impact:

- Import substitution: reduces nut imports into Uzbekistan.
- Export potential: to Turkey, Iran, GCC countries, China & EU.
- Strengthening of regional agricultural value chain.
- Contribution to sustainable use of arid hills through eco-irrigation.

## Social impact:

- ~800 permanent jobs (farmers, agronomists, operators, engineers).
- Seasonal employment for 1,000+ workers.
- Training programs for young farmers and agro-specialists.
- Contribution to rural development in Surkhandarya region.

## Location of the project



## Project description:

The Nut Agro Cluster is a large-scale agro-industrial project aimed at establishing walnut and pistachio plantations on arid hills of the Surkhandarya region, Uzbekistan, combined with a state-of-the-art processing and packaging complex. The project leverages advanced irrigation systems, modern agricultural techniques, and a vertically integrated value chain to ensure sustainable production, high export potential, and premium-quality products.

The cluster will cover 8 000+ hectares of plantations, with annual production capacity reaching 44 000 tons of raw nuts and pistachios by Year 5.

## Economic indicators:



Financing: 108 mln USD



Plantation Area: 8 000 hectares



Revenue Year 1: \$66 mln/year



PP: 8 years



NPV: ~ \$52 mln



IRR: ~21%

## Production indicators:



Walnuts (shelled & kernel):  
24 000 tons/year



Pistachios:  
20 000 tons/year



Value-added products (oil, flour):  
5 000 tons/year



# Watermelon and melon processing chain & product yield

## Key production stages

### 1. Plantation development

- Land preparation: terracing of arid hills, soil improvement, and installation of drip irrigation systems.
- Planting: high-yield walnut and pistachio varieties (grafted seedlings for faster productivity).
- Maturity timeline: pistachios begin yielding in Year 4, walnuts from Year 3, with full productivity from year 6 onward.

### 2. Harvesting

- Mechanized harvesting equipment for efficiency and reduced labor costs.
- Sorting and primary cleaning directly in the plantation fields.
- Collection centers established within plantation clusters.

### 3. Primary processing

- Cleaning & drying: nuts are washed, dried, and moisture-adjusted in controlled chambers.
- Hulling & shelling: mechanized shell removers and graders separate kernels from shells.
- Grading & sorting: nuts sorted by size, quality, and intended use (raw, kernel, oil extraction).

### 4. Secondary processing

- Roasting & flavoring: production of premium roasted and flavored pistachios/walnuts for retail.
- Oil extraction: cold-pressed walnut and pistachio oil production.
- Nut flour & paste: for bakery, confectionery, and health-food industries.
- Value-added products: chocolates, snacks, confectionery blends.

### 5. Packaging & storage

- Automated packaging lines for vacuum-sealed bags, jars, and bulk export packaging.

### 6. Distribution & export

- Domestic sales to retail chains and B2B clients.
- Export to Central Asia, Middle East, Europe, and China through logistics hubs.

## Product yield breakdown

Nº	Product segment	Final product composition	Next process
1	Walnut kernels (shelled, food grade)	High-quality edible kernels (protein 15–18%, oil 60–65%)	Grading → Packaging → Export / Retail
2	Pistachio kernels (shelled, food grade)	Premium edible kernels (protein 20%, oil 50–55%)	Grading → Roasting/Flavoring → Packaging
3	Value-added products (oil, flour, confectionery)	Cold-pressed edible oil (rich in Omega-3, antioxidants) High-protein flour & paste	Processing → Confectionery, bakery, snacks Bottling → Retail / Pharma / Cosmetics
4	By-products (shells, husks, pruning waste)	Biomass fuel, activated carbon, animal bedding	Pelletizing → Bioenergy or industrial use

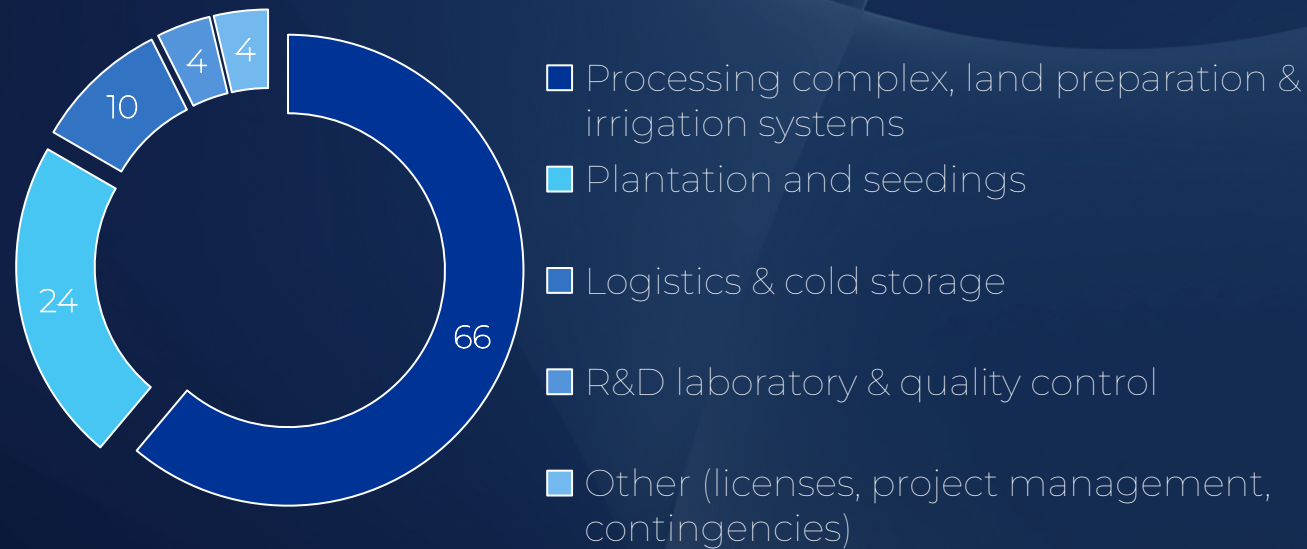




# Project expenses

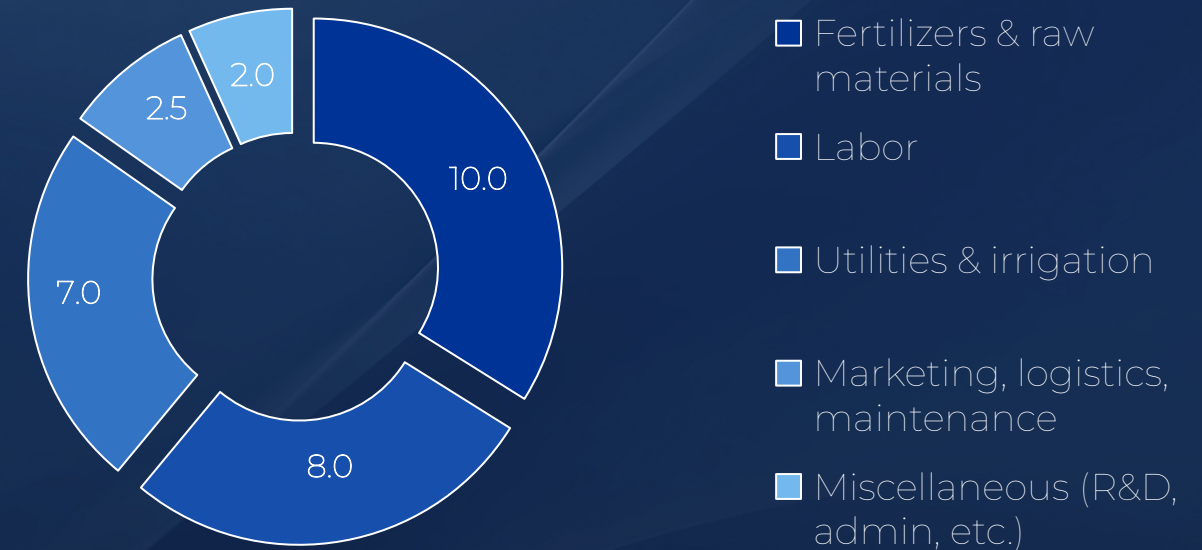
## Initial Investment (CAPEX) (mln dollar)

Total CAPEX: \$108mln



## Operating Costs (OPEX) (mln dollar)

Total OPEX: \$29,5 mln



This financial overview outlines a comprehensive cost structure and strong profitability of the proposed agri-nut cluster project. The breakdown includes both initial capital investment (CAPEX) and annual operating costs (OPEX), alongside projected revenue and profit estimates.

Product	Volume (tons/year)	Revenue 1 year (mln \$)
Walnuts (shelled & kernel)	24 000	36,0
Pistachios (raw, roasted, packaged)	20 000	22,0
Value-added products (oil, flour, confectionery)	5 000	8,0
<b>TOTAL</b>	<b>49 000 tons</b>	<b>66 mln (\$)</b>

### Annual EBITDA:

$$= \$66 \text{ mln} - \$29,5 \text{ mln} - \$1,5 \text{ mln} =$$

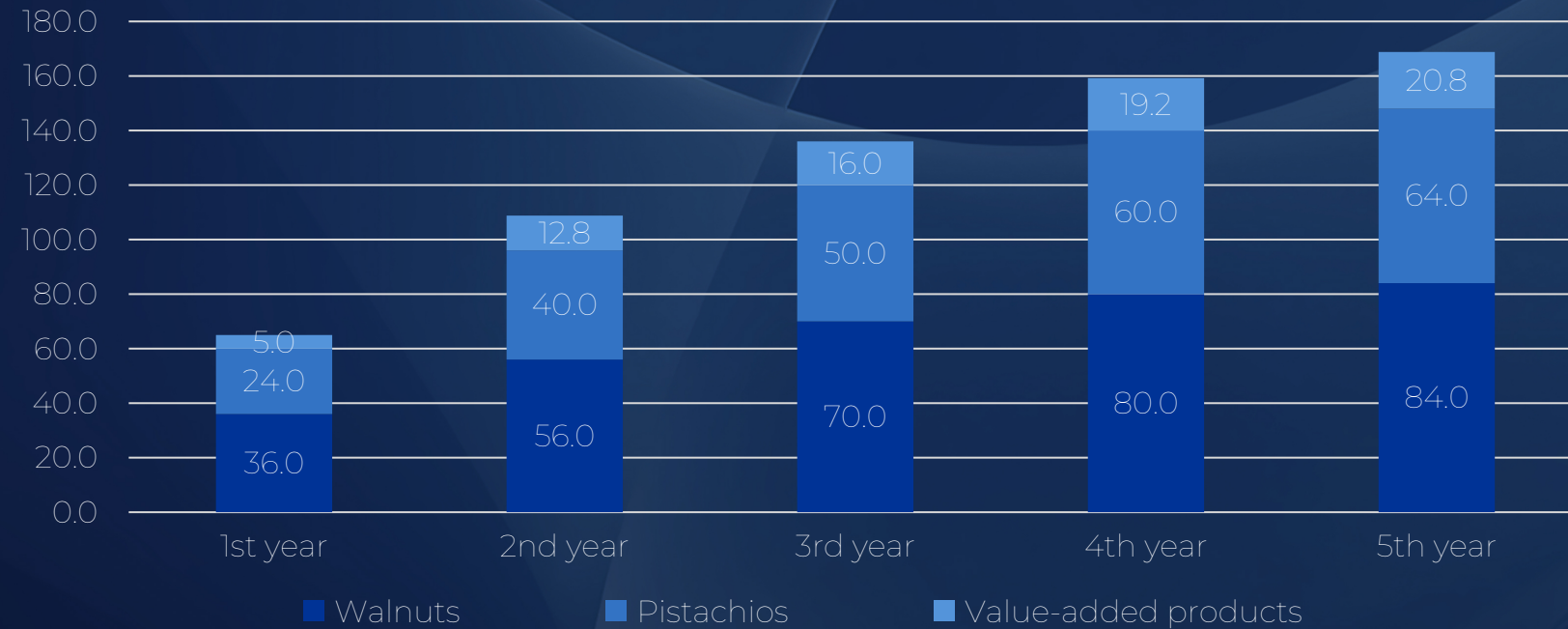
**\$31 mln**

The project's strong profitability forecast is underpinned by efficient operations and high market demand, positioning it as a highly attractive investment.

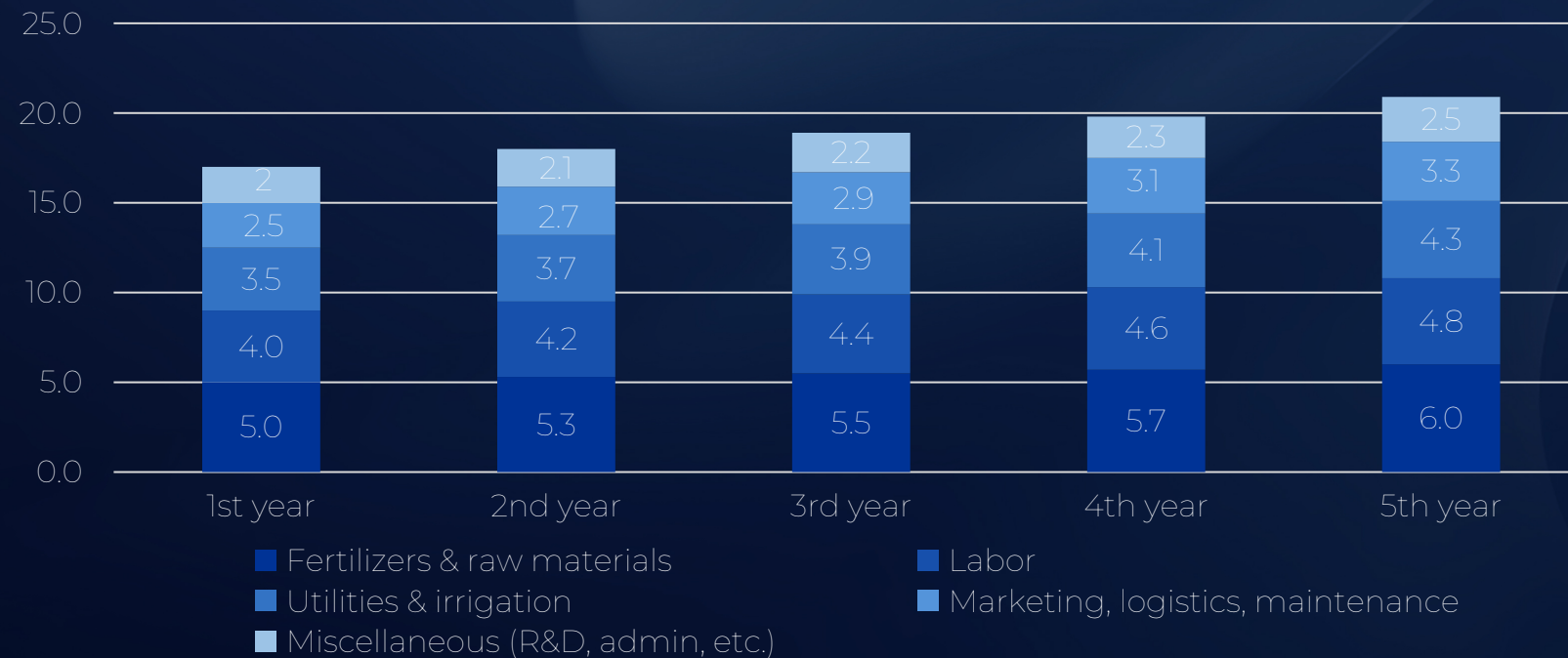


## Financial indicators (5-year projection)

### Revenues (mln dollars)



### Operating expenses (mln dollars)



Total 5-year revenue: \$420M

EBITDA growth: ~12% CAGR, reaching \$80,0 M by Year 5.

NPV (12% discount rate):

NPV= \$ 52 mln (*Highly favorable!*)

IRR (Internal rate of return): ~ 21%

Payback period (PP):

= 8 years

Profitability index (PI):

$= (\text{NPV} + \text{CAPEX}) / \text{CAPEX} = (\$52 + \$108) / \$108 = 1,6$