PROJECT OF PRODUCTION OF COMPOUND MINERAL FERTILIZERS IN LLC "MAROQAND ZIYO"

The name of the project	Production of complex mineral fertilizers
Company name	OOO “MAROQAND ZIYO"
Location address	TASHKENT REGION Chinazsky district, Yangi Chinoz Sh.F.Y.
Total area	4.4 ha
The total cost of the project	Total $6,120,000.00.
Authorized capital of the enterprise	$200,000 USD
Name of the product being produced	Complex mineral fertilizers in the form of granules and powder
Annual production capacity	200 thousand tons
New workplaces	Total 120 people
Project implementation period	Stage 1 Q3 2021

Objective of the project

The primary purpose of this project is to demonstrate the viability of investing in the organization of complex mineral fertilizer production by establishing the appropriate premises and procuring high-tech equipment for complex mineral fertilizer production.

The project's introduction will enable for organization on the territory of the Republic of Uzbekistan. The plant's capacity is expected to reach 100,000 tons per year. Initially, sales of items are intended for the republic's internal market. As it reaches the market, the amount of manufacturing will be steadily increased.

WHAT IS COMPOUND FERTILIZER

The chemical interaction of the basic components results in the production of complex fertilizers in a single technological cycle. Each complex fertilizer molecule or granule includes two or more nutrients.

Benefits of Compound Fertilizers

It is generally accepted that complex fertilizers are in many cases much more effective than single-component fertilizers.

Complex fertilizers do not contain ballast substances, they have a high concentration of nutrients, they are much cheaper to transport, store and apply to the soil, and the nutrients they contain are better absorbed by the plant than conventional fertilizers.

Possibility of application in arid conditions and when fertilizing crops that are sensitive to an increase in the osmotic pressure of the soil solution

The presence of several nutrients in one granule of solid fertilizer

LEVEL OF PRODUCTION OF MINERAL FERTILIZERS IN UZBEKISTAN

The chemical industry is one of the fundamental sectors of Uzbekistan's economy, and it contributes significantly to the growth of the republic's economy in all areas. The country possesses all of the prerequisites for the growth of this sector. The following raw resources are abundant: natural gas and gas condensate, sulfur, phosphorite, sodium chloride, limestone, and sylvinite, all of which are commonly employed in this business. Because the agricultural sector of the economy is particularly developed in Uzbekistan, the manufacture of nitrogen and phosphorus fertilizers dominated the chemical industrial structure. Domestic urea is now utilized as a fertilizer and, in limited amounts, as a component in the manufacturing of urea-formaldehyde resins. UE "Dekhkanabad Potash Fertilizers Plant" - capacity 200.0 thousand tons / year potassium chloride; JSC "Navoiazot" - capacity 180.0 thousand tons / year nitrogen-phosphorus fertilizers. Gallaorol Potassium Phosphate LLC manufactures potassium sulfate from potassium chloride (the Dekhkanabad Potash Plant is the primary supply of potassium chloride) and sulfuric acid (produced by Almalyk MMC and Chirchik OJSC MAKSAM-CHIRCHIK).

Production of chemical products in the Republic of Uzbekistan

In the Republic of Uzbekistan, in January-October 2020, enterprises for the production of chemical products produced products worth 17.6 trillion soums. The network volume index compared to January-October 2019 amounted to 104.5%.

In particular:

Production of ammonium sulfate - 19.3%;

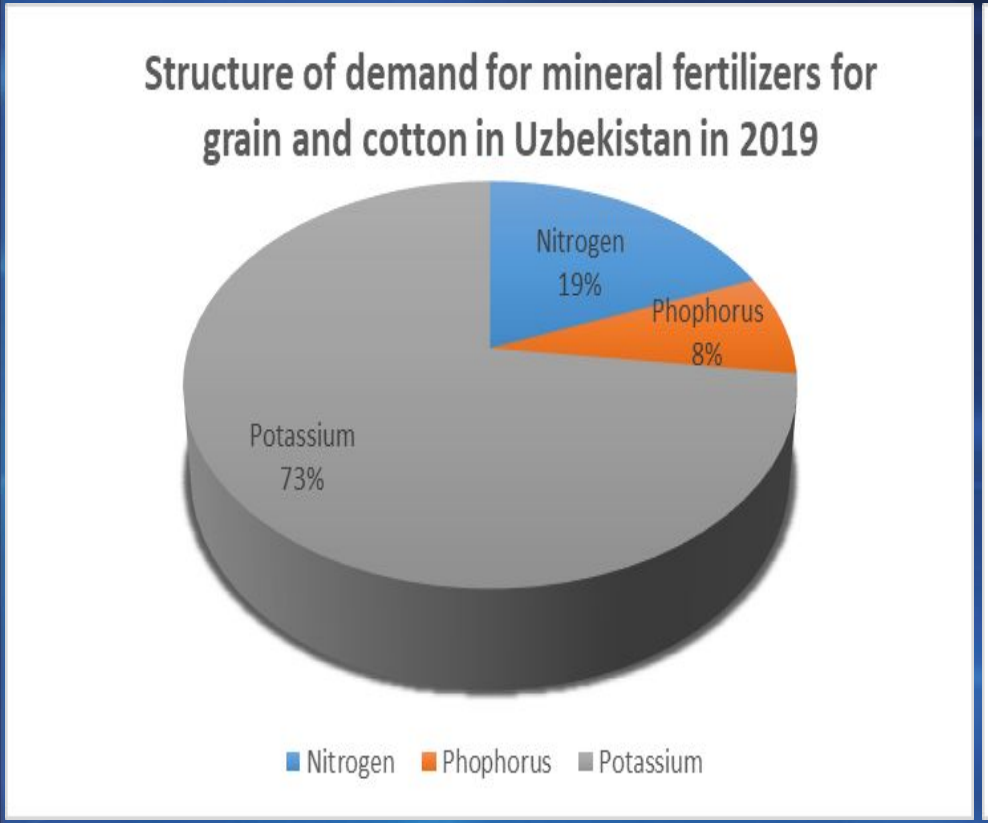
Production of sodium nitrate - 8.7%;

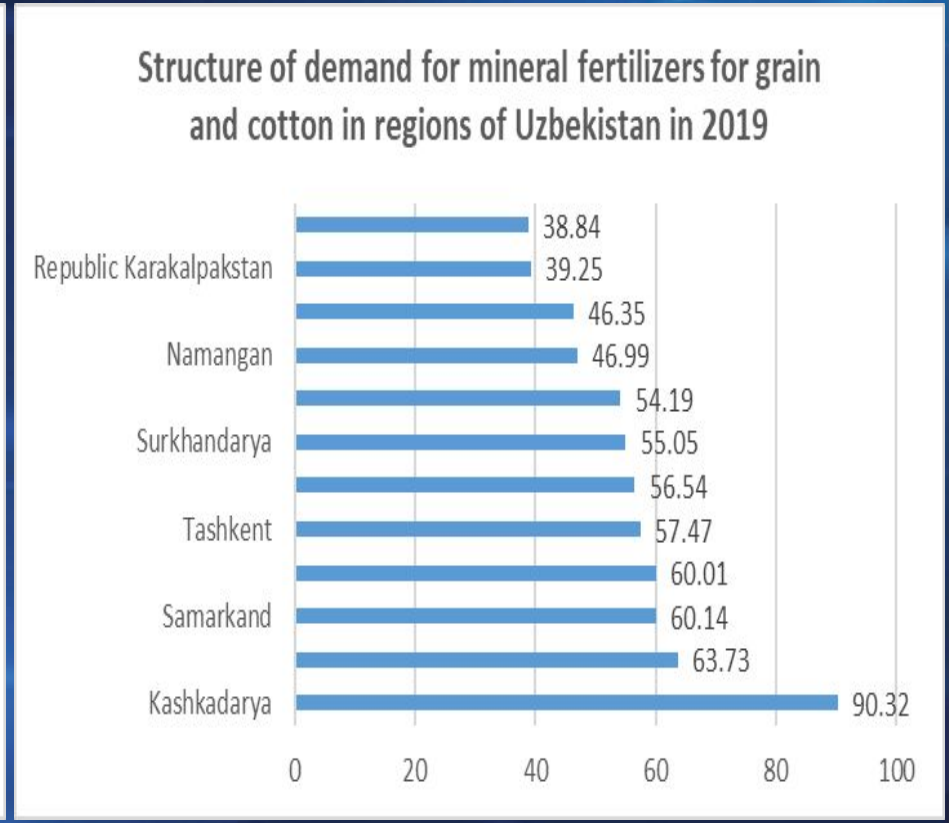
Production of potassium chloride - 4.7%;

Production of other nitrogen fertilizers and their mixtures increased by 315.4%.

The largest share in the total volume of chemical products produced by enterprises in the republic amounted to 33.4% of the Republic of Karakalpakstan, 16.4% of the Tashkent region, 13.5% of the Kashkadarya region and 11.2% of the Navoi region.

Demand for mineral fertilizers in Uzbekistan





The need for mineral fertilizers

At the start of 2019, the expected requirement for mineral fertilizers in Uzbekistan agriculture was 395 thousand tons, of which 221 thousand tons were nitrogen, 162 thousand tones were phosphorus, and 12 thousand tons were potash.Currently, phosphate and potash fertilizer output meets just around 30% of demand (2019). According to a 2019 demand structure study by area in Uzbekistan, mineral fertilizers based on nitrogen compounds, such as urea, ammonium nitrate, ammonium sulfate, and others, account for more than 70% of total volume. At the same time, phosphate and potash fertilizers account for approximately 19% and 8% of total fertilizer use, respectively. Fertilizers are most needed in the Kashkadarya (13.1 percent) and Ferghana areas (9.2 percent). The areas of Bukhara, Jizzakh, Samarkand, Surkhandarya, and Tashkent utilize almost the same total amount of fertilizers, or around 8% each. The Navoi area has the lowest demand indication (3.3 percent).

Benefits for setting up a compound fertilizer project

1. Absence of complex fertilizer plant and open competitive environment in the country
2. The openness of the market for complex fertilizers lies in the fact that the market is not saturated
3. According to the "Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020 - 2030" of the President of the Republic of Uzbekistan dated October 23, 2019, instead of reducing the area under cotton, horticulture, greenhouses and a decree on the expansion of other types of arable land
4. The transition of agriculture to a digital system. This expands the application of complex fertilizers in drip irrigation areas and reduces overhead costs.

Initial cost of the project.

USD

Indicators	Initiator	Total	
Acquired fixed assets	2 985 000,00	2 985 000,00	
Construction and installation works	800 000,00	800 000,00	
Working capital for the purchase of raw materials	1 185 000,00	1 185 000,00	
Fixed assets	**1 150 000,00**	**1 150 000,00**	
TOTAL INITIAL INVESTMENT COSTS	**6 120 000,00**	**6 120 000,00**	
SHARE	**100,0%**	**100%**	

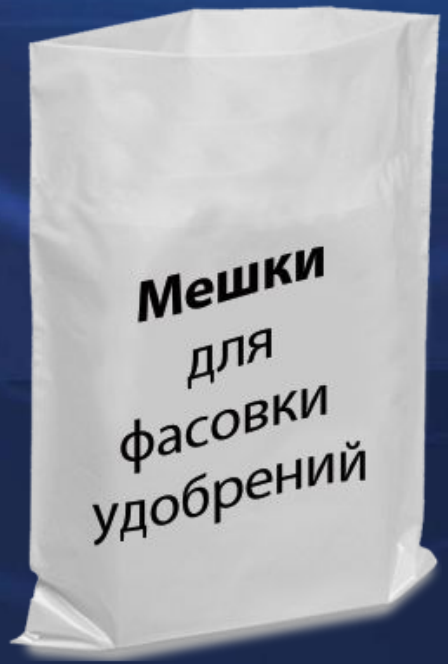
DESIGN AND TECHNOLOGY

Based on the foregoing facts, the importance of domestic high-quality complex fertilizer manufacturing is validated by market demands. Taking into account the quality criteria of the made goods, as well as the important knowledge required for equipment operation, it is feasible to meet market demand for the production of complex mineral fertilizers not only in our country, but also overseas.

№	Line name	TN VED code	Productive capacity	Power (kW)	Unit measurements	Qty	Cost USD (CIP Tashkent)
1	**Complete line for the production of complex mineral granular fertilizers**	8479820000	20 ton/h	766,50	set	1	**1 950 000,00**
2	**Complete line for the production of complex mineral powder fertilizers**	8479820000	8 ton / h	92.5	set	1	**1 035 000,00**
	Total Cost USD (CIP Tashkent)						**2 985 000,00**

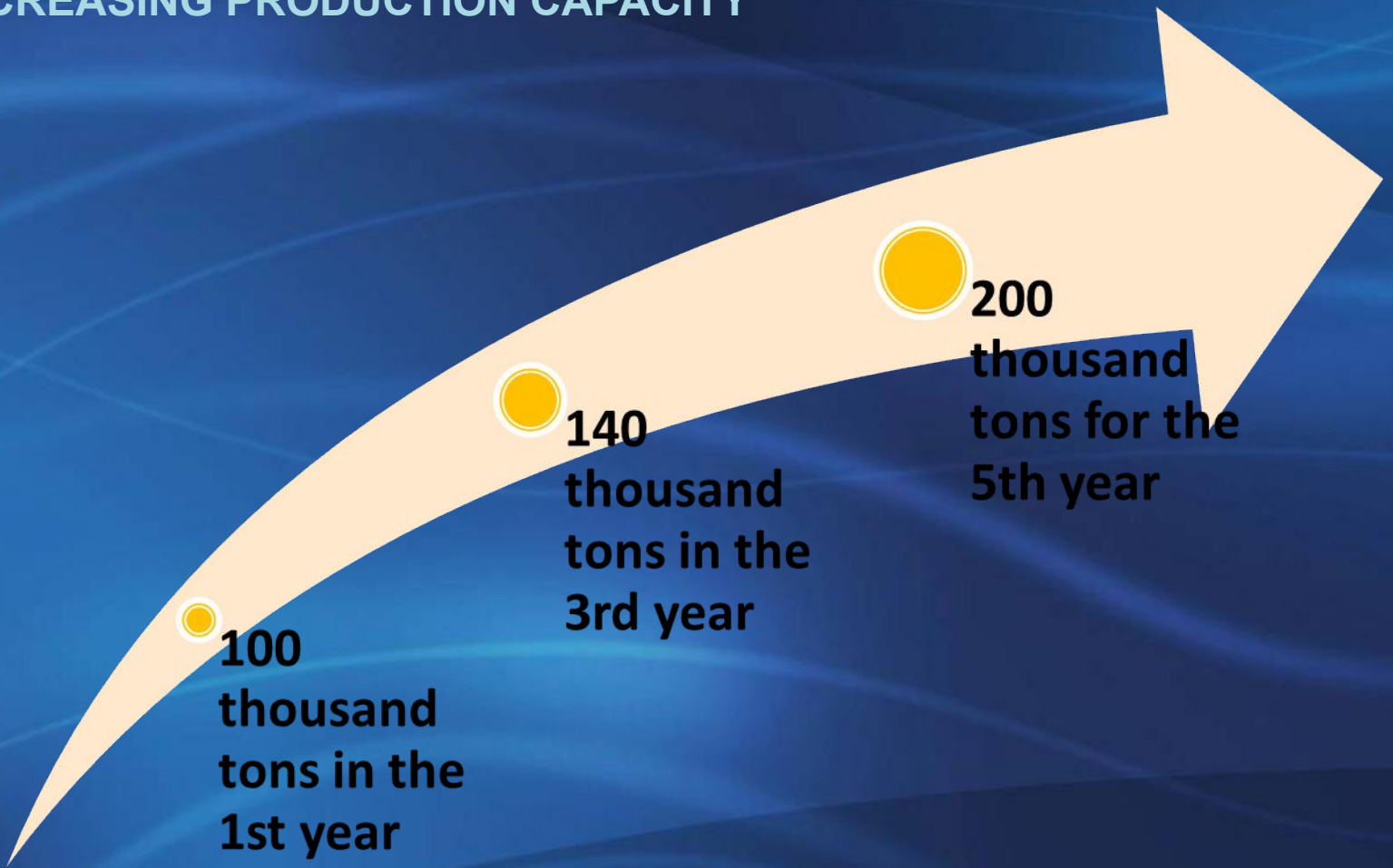
Packaging and labeling

Products will be packed in polypropylene and polyethylene bags.



PLANS FOR THE FUTURE OF THE ENTERPRISE

INCREASING PRODUCTION CAPACITY



• PLANS FOR THE FUTURE OF THE ENTERPRISE

Increase the range of products produced year by year depending on the market demand

Organization of agronomic consulting services for our clients

Export of products to countries near and far abroad

Opening of a branch of a complex fertilizer plant, which is not available in neighboring countries

Conclusion

Market needs confirm the relevance of domestic high-quality complex fertilizer manufacture based on the following factors. Taking into consideration the quality standards of the manufactured items, as well as the vital expertise necessary for equipment operation, it is possible to fulfill market demand for the production of complex mineral fertilizers not only in our country, but also abroad.

To carry out the proposed operations, the Project initiator invests USD 3,135,000.00 (51.22 percent) of its own money and USD 2,985,000 (48.77 percent) of loan funds. The investment is expected to be made during the first six months of Project execution, in accordance with the timetable of repair work, equipment procurement, and commissioning.

The initiative is both lucrative and effective.