



INVESTMENT PROMOTION AND PROTECTION AGENCY  
OF THE KYRGYZ REPUBLIC

## INVESTMENT PROJECT

Project: Construction of a ski complex in the Kemin region

### Project overview

#### INVESTMENTS IN THE PROJECT

Up to the present period, Elite-Tour LLC has made a purchase of a land plot for a ski resort, with the payment of annual rental payments in accordance with the legislation, as well as additional land for the placement of infrastructure.

Also, the acquisition of a cableway, special vehicles (snowcat), the construction of 3 wooden cottages, the 1st two-story brick house. Purchased special equipment.

Paid for design work on KKD number 3, sketch of the general plan, the concept of ski slopes, installation work KKD number 3, topographical survey, architectural planning conditions (AAP).

The total value of the works and acquisitions for the current period amounted to US \$ 981,603.

| No. pp | Name of objects, works and costs  | Amount (USD) |
|--------|---|--------------|
| 1      | The rent for the land area of 317.8 hectares for the period of 2010                     | 3,138        |
| 2      | The rent for the land area of 916.4 hectares for the period of 2011                     | 8,964        |
| 3      | Overhead to obtain additional land area of 598.6 hectares to accommodate infrastructure | 8,964        |

|    |  |         |
|----|--|---------|
| 4  | The cost of the acquisition of cableway, special vehicles (snowcat), the construction of 3 wooden cottages, the 1st two-storey brick house | 703 261 |
| 5  | Purchase of special equipment GAZ-66   | 9,861   |
| 6  | Purchase of special equipment bulldozer  | 8,964   |
| 7  | Design work on KKD №3  | 27,789  |
| 8  | Sketch of the general plan   | 5,379   |
| 9  | Concept of ski slopes  | 3,585   |
| 10 | Installation works of KKD №3   | 170 322 |
| 11 | Topographical survey   | 28,686  |
|    |  |         |
| 12 | Architectural Planning Conditions (AAP)  | 5,379   |
|    | Total on the main articles   | 981 603 |

**The ski complex has outstanding characteristics in comparison with other bases:**

The total length of the ski slopes is 27 km.

The height difference from the top to the bottom is about 1,415 m.

The capacity of the tracks up to 15 000 people / hour.

The capacity of the main aerial cableways is 22,200 persons / hour.

The total length of the main cable cars is 15,730 km.

### Assets

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Land for long term rent 91,640,000 m<sup>2</sup>

### Investments

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The amount of investment in the project is \$ 1,500,000.

### Investment climate

- Kyrgyzstan is located next to the fastest growing economies of the region, such as Kazakhstan, China and Russia
- Kyrgyzstan is the only country in the region a WTO member

- There are laws in the country that protect investors and provide them with the same rights along with domestic investors.
- Kyrgyzstan occupies a leading position in the region for political and economic freedoms
- The country has the lowest corporate income tax among CIS countries (10%)
- The most liberal customs legislation in the region



INVESTMENT PROMOTION AND PROTECTION AGENCY  
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## INVESTMENT PROJECT

### Construction of logistics center - vegetable storehouse

#### Objective

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Construction and organization of a logistics vegetable complex for long-term storage of vegetables and further sale, with a total capacity of 10,000 tons of one-time storage, using highly efficient equipment.



#### Project overview

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In Manas district of Talas oblast, all conditions have been created for the successful cultivation of vegetables: climatic (weather), natural (soil), availability of water resources, demographic (personnel), political (support of authorities at the local and republican levels). In particular, Kyzyl-Zhyldyz village of Manas district has a huge potential for

growing and selling vegetables both for Kyrgyzstan and for foreign markets, such as Kazakhstan and Russia. However, the lack of specialized vegetable storehouses does not allow to realize this potential.

In the framework of this investment project, the implementation of the following vegetables and root crops is considered: garlic, onions, potatoes, cabbage, carrots, apples, radishes, tomatoes, bell peppers, beans.

### **Vegetable storage technology**

Container storage technology of vegetables with separate chambers for each type of vegetables is planned. This method is a type of container storage and has many advantages: harvesting vegetables and fruits into containers with storage without overload contributes to increasing the yield of standard products, and reducing losses.

### **Objective**

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- Implementation of an innovative logistics center for the storage of vegetables and fruits;
- Sales of high-quality agricultural products;
- Satisfaction of consumer demand for high-quality vegetables in winter and spring;
- The development of new markets;
- Getting high financial results.

### **Assets**

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This logistics center is supposed to be built on a plot of land with a total area of 3.5 hectares, which is located in the village of Kyzyl-Zhyldyz, Manas district of Talas region.

### **Investments**

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The total cost of the project is 383 365 973 KGS. Financing of the project is expected from the following sources:

- Equity capital - 150 470 000 KGS or 39.25% of the total funding;
- Borrowed funds – 232 895 973 KGS or 60.75% of the total funding in the form of loan funds and products for storage.

Thus, at a dollar rate of 1 USD =70 KGS, the amount of investment will amount to \$ 3 327 085.

### **Financial calculations**

Simple payback period - 1.81 years

Net Present Value (NPV) - 963,541,941

Discounted payback period (PBP) - 1.89 years

Internal Rate of Return (IRR) - 114.0%

Modified IRR (MIRR) - 43.4%

The discount rate of investment costs - 10%



INVESTMENT PROMOTION AND PROTECTION AGENCY  
OF THE KYRGYZ REPUBLIC

## INVESTMENT PROJECT

### Expansion of the existing fishery, LLC “Tien-Shan Forel”

#### Project overview

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The project aims to modernize and expand an existing fishery growing trout in an area of 10 hectares of Toktogul and 5 hectares of the Tash-Kumyr water reservoirs.

The purpose of the project is to expand the existing fishery with an increase of production capacity from 500 tons to 700 tons of fish per year by December 31, 2023, and the establishment of a cage farm on Toktogul and Tash-Kumyr water reservoirs. The main objective of the project is also to create a consistent system of high quality.

The company plans to start the next cycle of its development, establish a cage fishery in the water area of Toktogul reservoir. Build a group of shops for product processing. Purchase a refrigerated van. Prepare conditions for the construction of a logistics center for the storage of fresh frozen fish, fish products, and other cattle meat.

#### Company description

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The company "Tien Shan Forel" - a production company engaged in the breeding of trout from seeding fish spawns to the supply of fish for sale. The farm is located in the Chui oblast of the Kyrgyz Republic in an ecologically clean alpine region, 60 kilometers from the capital of Kyrgyzstan in the Voznesenovka village. There is an environmental passport for 5 years. The capitalization of assets has increased over the last year by up to one million US dollars. The share of our company in the total volume of fish produced in the Kyrgyz Republic is 5%.

Now, “Tien Shan Forel” company has the cage fishery in the Voznesenovka village of the Zhayilsky District of the Chui Region. There are more than 15 cages, 5 of them for fish spawns. Production capacity is 450-500 tons of fish per year. The whole cycle from seeding fish spawns to the fish for sale lasts for 8 months. That is, in December 2018, from 300 to 450 tons of trout will be available for the market. From 500 to 1000 tons of fish can be

produced on the current water areas. Gradually, it is planned to go to this production capacity, with a purchase of special cages in larger quantities.

### Competitive advantage

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- Extensive material and security base
- Unique hands-on experience in trout farming
- Full political and legislative support
- Obtained water area of the Toktogul and Tash-Kumyr water reservoirs of 10 and 5 hectares, respectively, where up to 200 tons of fish can be grown
- Availability of partners producing and supplying feed at a cost lower than that of competing companies on exclusive rights
- Unlimited business expansion opportunities
- Preliminary agreements to export to China, Kazakhstan, Russia
- Diversification of production, the transition from the sale of fresh fish to the sale of canned fish and finished fish products

### Strategy

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The main strategic goal of the project is to increase the volume of produced fish and its sale to 500 tons per year. The main strategy is production scaling. Building sales channels to the countries of the Eurasian Economic Union and focusing on the Chinese market for consumption of fish products. Certification in accordance with international standards and requirements, including the quality and safety requirements of China for fish products produced by the farm. In terms of pricing, adhering to a market price strategy. Creating conditions for the ability of long-term storage of fish products.



### Investments

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The amount of investment requested is 3 million US dollars.



INVESTMENT PROMOTION AND PROTECTION AGENCY  
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## ИНВЕСТИЦИОННОЕ РЕЗЮМЕ

### «Wave Slate Production Workshop»

#### Description of the project

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The project involves the construction of a mini-plant for the production of wave asbestos-cement slate by vacuum molding of the product for the domestic market of the Kyrgyz Republic and export to the CIS market.

It is planned to build a line for the production of wave slate with a capacity of 4000 units per day, for which a hangar will be built with a total area of 600 square meters. The designed mini plant will be located either on the eastern outskirts of Kyzylkiya, Batken region, or on a site on the western side of the village. Kulatova, Nookat district, Osh region, as there are no slate manufacturers in the southern region.

Possibility of continuous operation of the mini plant 24 hours a day, and 7-9 people are required for maintenance. Productivity per hour is 166 units or 1 unit in 30 seconds. Required minimum stocks of raw materials:

- Technical water (tank 5 tons)
- Asbestos (60 tons are enough to prepare 9000pcs. Slate)
- Cement (198 tons are enough to prepare 9000pcs. Slate)

Sales will be carried out in the local market, in Uzbekistan and Tajikistan.

#### Competitive advantages

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- Location. There is an alternative road for heavy vehicles, located at a sufficient distance from settlements, access to electrical networks, access to water, and the proximity of a cement plant.
- Product benefits. Low price; practically does not heat up under the action of the sun's rays; not subject to corrosion; the material is not combustible; has good sound

insulation; ease of repair work; used to make a fence or fencing for beds; withstands heavy loads; long service life.

- Low competition. The place to build and install equipment will be the outskirts of Kyzyl-Kiya, as there is an advantage of the geographical location between 2 regions with a population of about 2 million people and with the prospect of exporting to Uzbekistan and Tajikistan., And the lack of a slate manufacturer in the southern region.
- Profitable price. The market value of wave slate sold in the markets of Kyzyl-Kiya varies in the region of 270-285 soms per 1 sheet of slate, and even imported from Russia for 300 soms and Uzbekistan 315 soms per 1 sheet. While 1 unit of slate of our factory will cost **133 soms**.



## Investments

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The amount of investments for the implementation of the project is 15 859 000 soms, i.e. 228187 thousand US dollars (at the rate of 69.5 soms per one dollar).



INVESTMENT PROMOTION AND PROTECTION AGENCY  
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## INVESTMENT PROJECT

### Construction of logistics center based on the OJSC "Argymak "

#### Project overview

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The project is planned to be build in Tash-Kumyr city of Jalal-Abad region. The project involves the creation of a logistics center on the land plot of 4.3 hectares owned by OJSC "Argymak". The building is being reconstructed for a warehouse refrigerating chamber with the capacity of 1000 tons, capital construction for a cold warehouse, and current repairs of a three-store administrative building and buildings and structures for technical purposes (equipping open parking areas of automobile, agricultural and special equipment).

#### Objective

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- Creation of a competitive enterprise providing a wide range of warehousing services;
- Rendering transport services in transportation from the field or from a gardening site to the logistic center. Provision of transportation services of finished products to the markets of Russia and the Republic of Kazakhstan;
- Formation of the economic basis, providing a guaranteed return of funds spent on the project.

#### Financial indicators

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The forecast period of financial and economic activity is 4 years. The simple payback period of the investment project will be 2.29 years, and the discounted period - 2.47 years. The net present value of the project will be 1 692300 thousand US dollars. Internal rate of return is 36%.

#### Investment efficiency, project payback period

| Title                           | Amount      |
|---------------------------------|-------------|
| Simple payback period           | 2,29 года   |
| Net Present Value (NPV)         | \$ 1 692300 |
| Discounted payback period (PBP) | 2,47 года   |
| Internal Rate of Return (IRR)   | 36%         |

|                               |     |
|-------------------------------|-----|
| Modified IRR (MIRR)           | 26% |
| Investment Cost Discount Rate | 12% |

## Market analysis

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The warehouse market in the southern region of Kyrgyzstan is currently at the stage of its formation and development. The supply of high-quality warehouse space is limited and in high demand. There are no warehouses that meet the requirements of international standards. In general, warehousing is characterized by insufficient efficiency of its use and depreciation of the material base.

The goal of the marketing strategy is to organize an efficient logistics service system. The concept of creating a LC implies creation of warehouse complex management with the provision of related additional services.

The main services of the LC will be:

- renting warehouses;
- renting office space;
- renting open areas for cars;
- transport services for goods to the markets of the Republic of Kazakhstan and Russia;
- acceptance of goods and supported employment;
- shipment.

## Investment

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The company is requesting an investment of \$ 1 million for the project.

### Photo of the entity





INVESTMENT PROMOTION AND PROTECTION AGENCY  
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## INVESTMENT PROJECT

**Construction of a logistics center for the processing and storage of organic apricot according to HACCP standards based on APC "Alysh Dan"**

### Production capacity

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The agricultural production cooperative (APC) "Alysh-Dan" has 350 hectares of apricot orchards, of which 125 hectares are certified apricot orchards. The cooperative includes 63 family farms. There are opportunities to produce up to 300 tons of dried apricot per year and 500 tons of traditional dried apricot.

The cooperative produces and sells 4 types of apricot products, such as: fresh apricots of "Ak Oruk" type, certified fresh organic apricots of "Suukapi" type, dried apricots of "Suukapi" type (traditional dried apricots), certified dried organic apricots of "Suukapi" type (dried apricots).

### Objective

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Since August 12, 2017, at the request of the Eurasian Economic Union, the export of products within the union is possible only for products that meet HACCP standards. Cooperative Alysh-Dan plans to attract investors to create a shop for the processing of apricot according to the HACCP standard. Investors' funds will be used to complete the construction of the started construction of the trade and logistics center with the acquisition of the necessary equipment.

Currently, there is not a single plant or logistics center for apricot processing complying to the HACCP standards in the Batken region. There are more than 10 thousand hectares of apricot orchards in the Batken region, and about 20 thousand hectares of dried apricots are produced each year. Apricots are currently being processed in neighboring Tajikistan.

At the opening of the logistics center, more than 200 thousand tons of dried apricot a year by bio-farms of the cooperative will be processed and exported. It is also planned to train

farmers in the Batken region on organic production to increase the number of bio-farmers and organic products.

## Investments

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To implement the project, the agricultural cooperative “Alysh Dan” needs USD 324,500. The cooperative has its own funds for USD \$ 67500. The cooperative requests from investors for joint implementation of the project in the amount of USD 257,000.



INVESTMENT PROMOTION AND PROTECTION AGENCY  
OF THE KYRGYZ REPUBLIC

## INVESTMENT PROJECT

### Mining and processing of limestone-shell rock at the Sary-Tash field

#### Aim of the project

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The aim of the project is to establish production for the manufacture of products, as there is currently a tendency to increase demand in foreign markets for this type of stone. In particular, to the markets of the Republic of Uzbekistan, Kazakhstan and Russia.

#### Description of the project

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To date, travertine products are in great demand, the essence of this project is to create a mini-plant for the production of travertine from the Sary Tash field in the Uzgen district of the Osh region.

#### **Brief description of the stone:**

Color or shade: beige - brown.

Origin: Sary Tash Kyrgyzstan field.

Application: facing plate, floor plate (warm floors), profiles, columns + bases + capitals, balusters + handrails, cover plate for the pool, fountains, fireplaces, monuments, vases, fur stones and more.

The Sary-Tash limestone-limestone deposit is located in the Uzgen district, Osh region, and the Kyrgyz Republic.

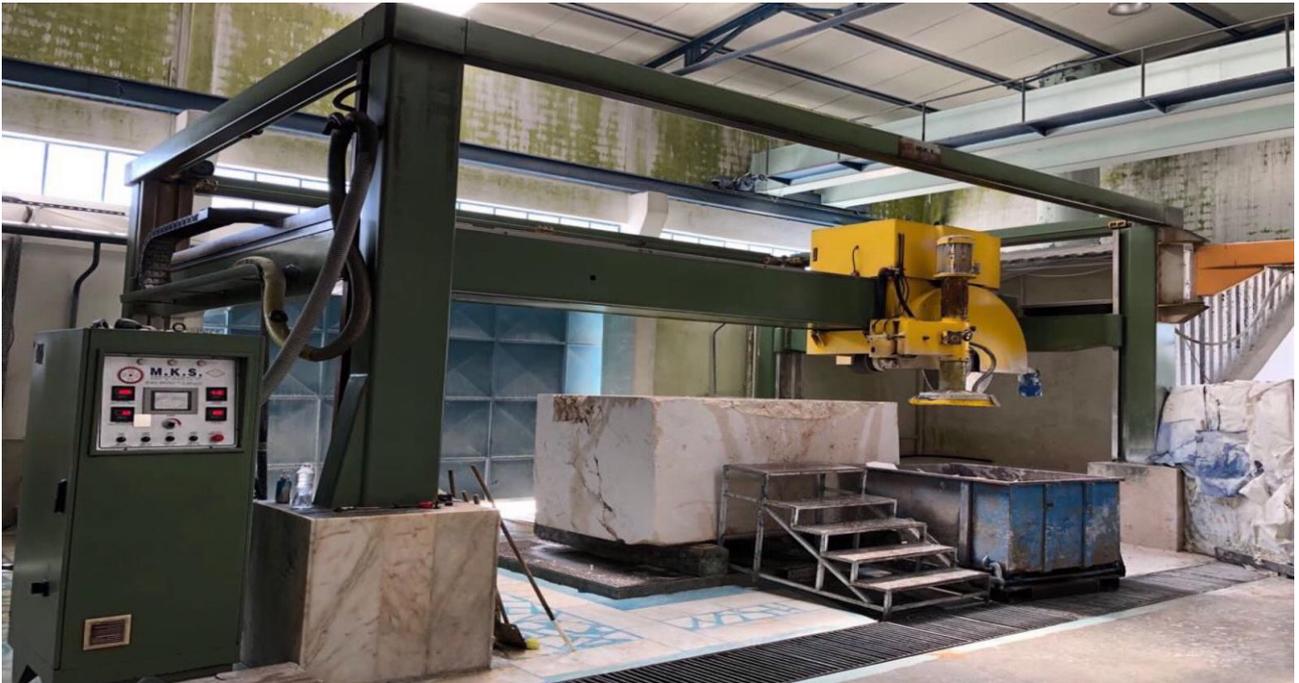
#### Investments

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The amount of investment, taking into account the construction of facilities for a mini-factory, the purchase and installation of equipment is from \$ 800,000

- Of these, for the construction of a mini-factory with all permits, 300,000 US dollars
- For the purchase of equipment and commissioning for the mini-plant, \$ 500,000.

At present (as indicated above), a large amount of natural stone waste has been collected at the quarry, and it is necessary to create workshops or mini-factories for Permanent waste at the quarry are shreds and sludge, which are small destruction products, there are also oversized blocks, shapeless blocks, rounds and etc. formed due to cracking of the array and breakage of the blocks during excavation (separation from the array) after cutting contouring slots. Waste generated during production of the so-called "oversized" have various sizes and geometric shapes.







INVESTMENT PROMOTION AND PROTECTION AGENCY  
OF THE KYRGYZ REPUBLIC

## INVESTMENT PROJECT

**Increase in the production of non-woven materials of Mata OJSC (due to the efficient use of production capacities, ensuring the growth of production profitability by attracting investments)**

### Description of the company

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Joint-stock company of open type “Mata” is a light industry company specializing in the production of nonwovens for technical and domestic purposes. The company was founded in 1990 and is located in the industrial zone of the city of Jalal-Abat, Jalal-Abad region.

### Assets of the company

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The total area occupied by the company is 9.843 ha and consists of the following buildings:

- ABK-three-story building -0.2 ha
- Production building - one-story building-1.79 ha
- Boiler room - one-story building - 0.013 ha
- Water intake facility with two art wells - 4.3 ha
- The area of green spaces and the adjacent territory - 3.21 ha

Water supply, heat supply of energy - provision autonomous

### Description of the project

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The purpose of this business project is to repay a previously received technical loan from KFW Bank (Germany), in the form of spare parts for installed equipment in the amount of 634,783.46 DM, together with interest 716,137.3 DM.

The implementation of the project will provide a solution to a number of the following production and economic problems:

- Increased production of nonwovens and their profitability.
- Improving the financial and economic situation of the enterprise and its further development.

- Repayment of technical loan received through KFW
- Saving and increasing the number of jobs

### The financial position of the company

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The financial position of the factory as of 01.01.2018:

Accounts receivable-46.5 thousand soms

Inventories - 6329.9 thousand soms

Cash - 364.4 thousand soms

The book value of fixed assets -14253 thousand soms

Construction in progress - 221.1 thousand soms

Accounts payable - 395.3 thousand soms

Debt to the budget - 65.1 thousand soms

Debt in the Social Fund - 98.4 thousand Som

Debt on payment of wages to employees - 89.5 thousand soms

### Investments

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The investment requirement for the project is \$ 1.5 million. USA. Investments will make it possible to repair production buildings, reconstruction of production. It will also help to pay off debts to the budget and the social fund, increase production volumes, and improve the financial condition of enterprises. Investments will contribute to the accumulation of sufficient working capital for seasonal purchases of raw materials, ensure uninterrupted year-round work and increase jobs to 30 people.

### Competitive advantage

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According to analysts of the International Association of Nonwoven Fabric Manufacturers, our products will be in demand in Kyrgyzstan for at least another 20 years.

The possibility of the enterprise allows to produce 317520 sq / m of packaging packaging fiber and 226800 sq / m of batting under single-shift operation.

The main consumers of batting as kk insulation lining is acquired by the Dynamo garment factory under the Ministry of Internal Affairs of the Kyrgyz Republic.

Consumers of packaging as a wiping material are all state enterprises and institutions throughout the 5th republic.

The need for container fiber by state institutions of the Jalal-Abad region is 368820 sq / m, and over the whole republic there are more than two million sq / m.

# BUSINESS PLAN



1/08/2018

Expansion of the existing fish farm of

Tien-Shan Trout. Chui oblast. Voznesenovka village

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## 1. MEMORANDUM OF CONFIDENTIALITY

This business plan is the intellectual property of Tien-Shan Trout. The exclusive rights for the use of this business information plan are possessed by the General Director of LLC "Tien-Shan Trout" - Saryldyk uulu Ilgiz. The business plan refers to the commercial secret of the company and is designed to provide the project to financial and credit institutions and investors on the basis of confidentiality of its content. No third party has the right to use it for their own commercial or other purposes.

## 2. BUSINESS PLAN SUMMARY

This business plan contains a brief description of Tien-Shan Trout business, as well as current financial indicators, availability of certificates, technology, and this business plan describes the scheme and graphs of financial results and repayment of loan obligations. The summary of the business plan for numerical indicators can be seen in the table below.

## 3. SUMMARY OF THE BUSINESS PLAN

|                               |  |
|-------------------------------|--|
| Company                       | Tien-Shan Trout LLC  |
| Capitalization of the company | \$ 1.6 million   |
| Project                       | Modernization and expansion of the existing fish farm to grow trout in the water area of 10 hectares of Toktogul and 5 hectares of the Tash-Kumyr reservoir. |
| Current production capacity   | 150 tons of trout per year   |
| Estimated productive capacity | 500 tons per year on average   |
| Geography of sales of the     | EAEU, China  |
| Required investments          | \$ 3 million   |
| Investor's share              | 49%  |
| Payback period                | 4 years  |
| Project duration              | 7 years  |
| vacation                      | 2 years  |
| Return on investment (ROI)    | 148 , 61%  |
| NPV                           | \$ 6.2 million   |
| Profitability index (PI)      | 2.07 (PI> 1)   |
| IRR                           | 94.74  |

## 4. COMPANY

### 5. 4.1. General information

#### 4.1.1. Name of the applicant:

Full name (in the state language) "Tien-Shan Forel" zhookercherchigi chettelgen koomu. Full name in the official language of the Obshestvo s organichennoi otvetstvennostiu "Tien-Shan Forel". Abbreviated name (in the state language) "Tien-Shan Forel" ZhCHK. Abbreviated name (in the official language) of Tien-Shan Forel OsOO. Organizational and legal form Limited Liability Company. There is no foreign participation in the company. Registration number 171382-3301-LLC. Code OKPO 30017084 9. INN 02601201810036. Phone number 0551151452. The registration was made on 01/26/2018. The main activity - Fishing in rivers, lakes, reservoirs (freshwater fishing). Economic activity code - 03.12.0 27. The founder is an individual Saryldyk uulu Ilgiz.

The company "Tien-Shan Trout" - a manufacturing enterprise engaged in breeding trout from the seeding of fry, to the withdrawal of commercial fish for sale. The farm is located in the Chui oblast of the Kyrgyz Republic in an ecologically clean high-mountainous area 60 kilometers from the capital of Kyrgyzstan in the village of Voznesenovka. There is an environmental passport for 5 years.

#### 4.1.2. Leader:

Director is a citizen of the Kyrgyz Republic Saryldyk uulu Ilgiz.

Saryldyk uulu Ilgiz is known as a successful entrepreneur who has a high business reputation and an impeccable track record. He was noted by numerous letters including from the President of the Kyrgyz Republic Sooronbay Sharipovich Jeenbekov. The scope of its core competencies is management and international administration. He successfully interconnects with partners from Kazakhstan, Russia, China and all 7 oblasts of the Kyrgyz Republic. Has an expanded network of partners. Is able to guarantee delivery. Partners noted the strict implementation of agreements and contracts.

#### 4.1.3. Legal address of the applicant: The

legal address of the company is Bishkek, Pervomaisky district, Ak-Bosogo railway station, Chui-50 avenue, house No. d.

#### 4.4. Actual address of the applicant:

Voznesenovka village, Chui oblast, Kyrgyz Republic.

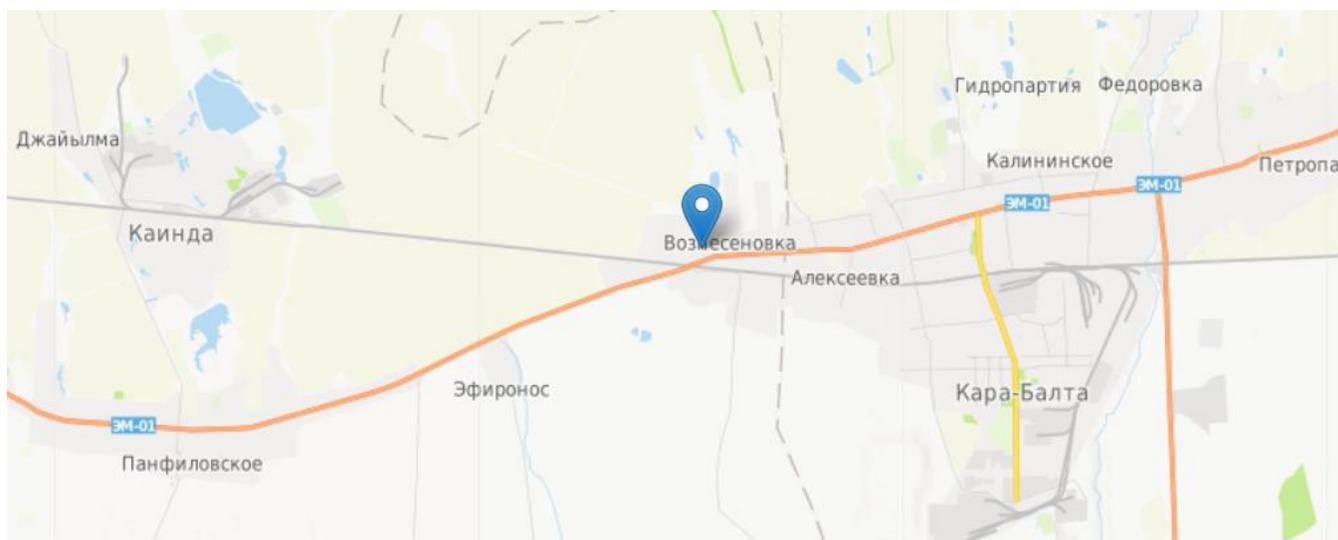


Fig.1. Location of the enterprise

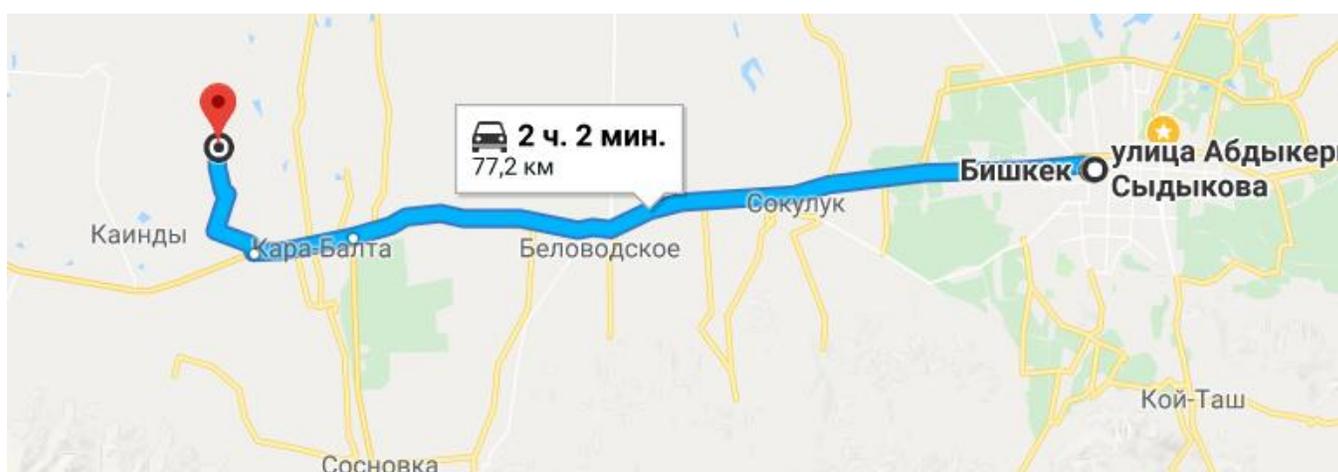


Fig.2. Distance from Bishkek to pond farm "Tien-Shan Trout"

## 6. 4.2. Characteristics of the products and services of the company

Trout farmed in the Kyrgyz Republic is particularly suitable for exporting and delivering to the best restaurants and cafes of the CIS, China and Southeast Asia. The taste of trout is quite high. Due to the large amount of pure artesian as well as mountain river water, due to climatic conditions of the Kyrgyz Republic, trout meat from the Kyrgyz Republic is considered one of the best to taste, following the results of international food exhibitions. As a rule, in the Kyrgyz Republic, non-local trout breeds are used, as this would require a large uterine herd. Therefore, the best solution for many fish farmers is the delivery of ready-made fertilized trout caviar from countries where there are large broodstocks at the production level. In particular, which countries can include Norway, Denmark and Finland. Fertilized caviar is mainly bought by the company "Tien-Shan Trout" from Norway. Due to the fact that there are practically no fish diseases in the Kyrgyz Republic, due to the fact that the water is mostly flowing here, the general risks that are on the continental part of Eurasia for fish farmers that are grown by trout are

minimized in the Kyrgyz Republic. And moreover, the products are always clean. The presence of parasites in the intestines of fish, the so-called Acanthocephala, is extremely small. Basically, they are found in fish that are grown wild in a wild way in water bodies without running water. As for the filtered and clean water reservoirs, trout farms, to which the Tien-Shan Trout is related, practically no Acanthocephala and other parasites and fungi are found in fish.

In the Kyrgyz Republic, there are certain quality certificates of the Kyrgyz National Standard. The company Tien-Shan Trout meets all requirements of the Kyrgyz national legislation. At this stage of the development of Tien Shan, Trout supplies fresh live fish to the market. A small amount of fish is frozen with the use of equipment from partners. In the near future, according to this project Tien-Shan Trout plans to produce a wider range of products from farmed fish. In particular, it is planned to bring to the market such types of products as dried, dried, freeze-dried trout, trout canned food, frozen trout with the help of shock freezing. It is also planned to produce trout chips, trout semi-finished products for complex dishes, ready-made portion trout steaks. In addition, it is planned to produce combined feeds for small and large cattle from the waste of the trout processing plant. This can be bone meal, or a mineralized flake of scales, skin and fish heads.

To date, in addition to fresh and fresh-frozen fish, Tien-Shan Trout sells a limited number of ready-made trout dishes in a cafe near the trout farm.

As for the health benefits of the nation and the health of consumers of trout meat. According to USDA Nutrient Database in 100 gr. Trout contains:

- Water - 71.87 g
- Proteins - 20.48 g
- Fats - 3.46 g
- Carbohydrates - 0 g
- Ash - 1.31 g

Vitamins:

- Vitamin A (retinol) - 19 µg
- Vitamin B1 (thiamine) - 0.123 mg
- Vitamin B2 (riboflavin) - 0.105 mg
- Niacin (vitamin B3 or PP) 5.384 mg
- Vitamin B5 (pantothenic acid) 0.928 mg
- Vitamin B6 (pyridoxine) 0.406 mg
- Folic acid (vitamin B9) 12 µg
- Vitamin B12 (cyanocobalamin) 4.45 µg
- Vitamin C (ascorbic acid) - 2.4 mg

Macronutrients:

- Potassium - mg 481

- Calcium -67 mg
- Magnesium-31 mg
- Sodium- 39 mg
- Phosphorus - 271 mg

Trace elements:

- Iron -0.7 mg
- Manganese- 158 mcg
- Copper - 109 mg
- Zinc - 1.8 mg
- Selenium 12.6 g
- Calories

100 g trout contains on average about 119 kcal.

Also, the company Tien-Shan Trout has an incubation shop, which every two months produces 400,000 incubated eggs. This caviar is used for further sowing of cage farming, and also for sale to other fish farms.

#### 7. 4.3. Innovations of the company

During the activity in the fish industry, Tien-Shan Trout develops its own business processes, unique in nature. There were certain rules that allow providing iridescent river Norwegian trout with a 100% survival rate of fertilized eggs in some cases. The average survival rate is 97%, almost all the incubation of caviar is transformed into adult fish. Thus losses and costs are extreme minimum.

In terms of using the achievements of modern new high technologies, the company plans to purchase a video surveillance system with an automated alert function at the enterprise, the acquisition of new refrigerating plants, a shop for cutting and packing fish, and fish counters and fry counters. Innovative types of equipment are also ozonizers and filters, which the company is going to acquire.

#### 8. 5. ENVIRONMENT FOR BUSINESS

In the Kyrgyz Republic today, comfortable conditions for doing business have been created. Thanks to the new Tax Code, on average, the tax burden on raw materials processors falls to 14 percent of the turnover. These various tax regimes provided for in the Tax Code give great flexibility for the organization of the enterprise. The conditions for doing business in the Kyrgyz Republic are more liberal than even those in Kazakhstan, Russia, Uzbekistan, and other countries. It should be noted that the size

of the local market is extremely small. Although the demand for fresh fish in the country is not yet covered, the most reliable solution for trout producers is export. As for the logistics location of the Kyrgyz Republic, it is ideal. The CD is close to China, Kazakhstan, Uzbekistan and Tajikistan. The most basic consumer of trout from Kyrgyzstan is Kazakhstan. Great requests for fish come from China. A certain difficulty is the lack of a railway between China and Uzbekistan. This increases the cost of transporting the goods. However, in the near future these issues will also be resolved within the framework of the project, "One Belt One Way." Accommodation of the Kyrgyz Republic in the Eurasian Economic Union allows duty-free trade within the Union space. This is an indisputable advantage.

## 9. 5.1. PESTLE ANALYSIS

### Political Factors

A period of political stability has been established in the Kyrgyz Republic. The democratic system, many perturbations have developed a certain system in which political demonstrations and rallies are no longer a common policy tool. In this regard, business feels more comfortable in the Kyrgyz Republic. After the entry of the Eurasian Economic Union for the Kyrgyz producer, new markets opened, new sales channels. In the presence of various collisions of the tax burden in a particular state, in general, trade can be considered duty-free. There are certain difficulties in the transport of goods associated with phytosanitary security and protectionism. But these issues are solved at the enterprise level by implementing the requirements of the technical regulations of the Eurasian Economic Union. There is some support for the national entrepreneurship on the part of the state, which is reflected in the provision of tax benefits and discounts. Thus, processors of agricultural products are exempted from VAT by a decision of the Government of the Kyrgyz Republic before September 1, 2018. To develop and raise the economy there are discussions on the abolition of all taxes for small and medium-sized businesses. Tien-Shan Trout is at the current stage of small and medium-sized businesses, and therefore it is expected to receive the maximum number of benefits and political support. One of the factors of political support is that the current leadership of the country emphasizes the development of regions and agriculture and pursues the goal of establishing stable development of the regions. Since Tien-Shan Trout is a regional company and will be located during the implementation of this business project in 2 oblasts of the Kyrgyz Republic, the company has full political support and assistance from the state.

### Economic factors

Economic factors in the country today are also favorable. Financial institutions appeared, including the Russian Kyrgyz Development Fund, which provide loan products at fairly low annual interest rates. This is one of the most important conditions for the development of small and medium-sized businesses. The State Collateral Fund appeared, which also provides opportunities for small medium-sized businesses to receive additional financing.

For fish products in particular for trout, the domestic market is still fairly open. Annual consumption of citizens of the Kyrgyz Republic for fish products has not yet been fully ensured. There is scope for internal growth in the markets of the Kyrgyz Republic. Moreover, the country has a common border with China, and to date, many Chinese importing companies are eyeing the food from the Kyrgyz Republic. It is planned to export very high volumes of food products and agricultural products to the People's Republic of China. Traditionally, goods produced in Kyrgyzstan go to Kazakhstan. The main volume of trout produced in the Kyrgyz Republic is sold in the market of Kazakhstan. Since 2017, since the opening of the border between Uzbekistan and Kyrgyzstan, the volume of export operations has grown significantly, and Kyrgyz agro-industrial products are exported to Uzbekistan. At the moment, the Tien-Shan Trout company receives requests from Uzbek companies to import trout. There is a possibility that in the near future the volume of trout imports to Uzbekistan will increase. Limits for growth in the coming years for the company is not expected. There is an opportunity to develop and expand the business to a large extent. Due to the declining rates of national currencies in Kazakhstan and Uzbekistan, exporters from the Kyrgyz Republic have certain advantages. At currency operations it is possible to have a gain up to 7% from net profit from currency operations at export.

Due to relatively low electricity prices in the region for industrial enterprises, about 3 soms 43 tyiyn per kilowatt hour, and while trout farming does not consume large amounts of electricity, energy costs in the Kyrgyz Republic are acceptable. In the context of the economic crisis that arose as a result of international sanctions against the Russian Federation and affected all the allies in the Eurasian Economic Union, the purchasing power with respect to fish products on the part of the population making up the upper and middle class of these countries did not fall. The demand is still preserved. Consumption of trout increases from year to year by about 7.6%. The only problem is still the high cost of transporting the goods. However, this issue is still blocked by high prices for trout. The nearest time is not expected and the cost of trout is not predicted. There is a certain seasonal leap, when the cost of trout is reduced by only 15-16% for a short period of time. The rest of the time the cost of trout is quite high and is in the national currency in soms 450 per kg. From an economic point of view, trout farming in the Kyrgyz Republic has the most positive prospects and benefits.

### Social factors

Recent years in the Kyrgyz Republic as well as in Kazakhstan in China are the largest changes in the culture of food consumption by the population. Fashion for a healthy lifestyle is increasing. If we take as a basis that the number of people choosing a healthy lifestyle on average in Kyrgyzstan is 1%, Kazakhstan is 4%, and in China it is 3%, according to RosBusinessConsulting, more and more people gradually prefer to lead a healthy lifestyle from year to year and eat healthy food. To date, this means

that people can refuse to consume large amounts of food in favor of and consumption of small but high-quality products. These products include fish. In particular, trout is a valuable commercial object, referring to the genus of salmon, contains a very large amount of vitamins and trace elements, as well as useful fats and amino acids. Considering this consumption of trout increases from year to year. There is also a trend of growth in value. For example, today a kilogram of trout costs 450 soms, literally two years ago a kilogram of trout cost 350 soms. It should be noted that the cost of fish products is growing slowly due to the growth in demand. According to our forecasts, fish also refers to foods that prefer to consume almost 100% of the population approximately once a month. In particular, citizens of Kazakhstan and Kyrgyzstan have such social habits when striving for an average and high standard of living. In China, seafood is used more than twice a month. As for the small percentage of the population mentioned above, they tend to consume seafood, in particular trout, almost weekly at a level of 2 or 3 times a week. Habits of the population are changing and we see that consumption of our products - trout will grow year after year even more.

#### Technological factors

The most progressive technological method of growing trout is cage culture. To date, in large flow basins, the installation of cages provides the most qualitative increase in trout weight at the same time as quality and flavor characteristics.

On average, it can be said that the technological culture itself in the Kyrgyz Republic is quite low. The cost of innovation in% in can be from 0.7 to 1%. However, in recent years, in general, this figure is kept at the level of 0.7-0.8 percent, in the structure of public expenditure. Scientific research institutes and developments are practically not funded. However, the number of registered patents in Kyrgyz Patent increases year by year. The Kyrgyz Republic at one time completely lost the technology of growing fish. There are only a few fish farmers left, particularly those who are members of the KR Association. They have preserved the technology of growing fish. Thanks to the dissemination of information technologies, to date, the description of these technologies and methods is fully available in the public domain, as well as materials from enterprises that supply ready-made seed, fertilized eggs, fish feeds and local companies in the package of their offer. Therefore, despite the general low level of technical culture development, it can be said that in general, the technology of trout farming is set at a fairly good level here. Especially well placed in the company Tien-Shan Trout. So far, we have to admit that the company's cages have to be bought in Russia and Turkey. Most of the equipment for the production and processing of trout also have to be bought in Russia, Turkey, Europe and China.

#### Legal factors

The main legal factors. To date, processors of fish products and fish producers have regulatory and legal acts that protect their business and provide certain tax preferences. In particular, fish producers are guided by government regulations and the Tax Code.

#### Article 258 of the Tax Code of the Kyrgyz Republic

In accordance with Article 258 of the Tax Code of the Kyrgyz Republic (Law of the Kyrgyz Republic of October 17, 2008 No. 231), tribal agricultural animals and seeds, mineral fertilizers and chemical protection products of plants imported to the Kyrgyz Republic, as well as vaccines and medicines for animals are exempt from VAT.

#### Extract from the Tax Code of the Kyrgyz Republic.

Article 258. Exemption from VAT of imported breeding farm animals and seed materials, mineral fertilizers and chemical protection products of plants

1. Tribal agricultural animals and seeds, mineral fertilizers and chemical agents imported to the territory of the Kyrgyz Republic protection of plants, as well as vaccines and medicines for animals.

2. The import of goods specified in this Article shall be exempted from payment of VAT in accordance with the list approved by the Government of the Kyrgyz Republic in accordance with TNVED.

In order to support domestic processors of agricultural products, until September 1, 2018, benefits for income tax and value-added tax for processors have been extended.

These articles of the Tax Code allow you to import fertilized trout caviar with exemption from basic taxes.

In addition, in order to improve the business environment and the investment climate, the Government has undertaken a number of activities. So, in the sphere of tax and investment policy the following measures were taken:

- privileges were granted to newly created industrial enterprises in subsidized regions;
- Leasing companies are exempted from VAT, sales tax and received a preferential rate of 5% on income tax;
- approved the Regulation on the application of the stabilization regime, which gives the investor the right to choose the most favorable tax regime for 10 years.

To date, the draft law has been submitted to the parliament with full exemption from VAT and income tax of small and medium-sized enterprises, as has already been done on the current day in Uzbekistan.

## Ecology and the environment

The ecological situation in the Kyrgyz Republic remains at a fairly good level. The country is high-mountainous. As a consequence - it has very extensive river resources. In Kyrgyzstan, there are more than 40,000 rivers and streams, the total length of which is approximately 150,000 km, with the flow of about 47 cubic kilometers of water per year. The main source of water in the rivers is thawed water from numerous mountain glaciers. The amount of rains is less than 1/5 of the total water flow. Kyrgyzstan is located far from the oceans, therefore all its rivers flow into closed drainage systems. Artesian wells in Kyrgyzstan are characterized by pure mineralized water in some cases. The country does not have heavy chemical industrial production, or large-scale development of minerals other than Kumtor Centerra, capable of causing serious damage to the environment. In the conduct of agriculture, the local population does not use pesticides and medicines such as DDT for processing fields or fodder. Pesticides and chemical elements for the treatment of plants, and for the treatment of livestock or fish, are used in a very limited amount. This allows us to say that all food products of the Kyrgyz Republic are basically organically natural. Because of this, if you conduct enough tests to implement the Certificates of Organic, many agricultural products will be able to obtain this certificate and status. Tien Shan Forel also uses artesian wells, flow ponds, and plans to use the waters of the large Toktogul reservoir, in this connection, due to clean ecology, the company has the opportunity to grow high-quality products. To date, fish grown on artesian wells has a high degree of purity and naturalness. In the Kyrgyz Republic, the ecological situation makes it possible to increase the production of fish to 200,000 tons a year. Moreover, it will be only not more than 2-6% of the total aquifer, the country's common water resources suitable for the cultivation of such species of fish as trout.

### 1. 5.2. Sectoral environment

The agricultural sector in the Kyrgyz Republic is able to provide a high level of production of various basic food products, including fish. According to the norms established in the country, the target value of consumption of human fish products should be an average of 9.1 kg per year. In 2015, the average per capita consumption of fish and seafood amounted to 1.2 kg, about 7.5 times less than the required rate. In addition to low consumption volumes, domestic fish products are low and amount to 1100 tons per year, which is only 10% of current domestic consumption. The remaining 90% of the consumed fish in the country is imports.

The functional area on which you can grow fish in the Kyrgyz Republic is more than 55 thousand hectares.

In the water basins of the Kyrgyz Republic there are 71 species of fish. Past work on the introduction of new species of fish has led to an increase in the resources of valuable commercial fish species and a sharp decrease in endemic fish species. Nevertheless, according to expert estimates, the potential natural fish productivity of large lakes and reservoirs for commercial fishing ranges from 0.5 to 7.5 kg / ha and higher if it is not about artificial feeding of fish.

Reduction of endemics caused the introduction of invasive predators into large water bodies. There is still a dispute about the correctness or inaccuracy of the release of Trout in Issyk-Kul. Negative importance was due to fishing by the local population, mass poaching, a decrease in the state's attention due to a shortage of state budget funds for artificial reproduction of fish. The moratorium on fish production in the lakes of Issyk-Kul and Son-Kul, introduced in 2008 to restore fish resources, did not yield the expected results. It is also possible that poachers completely ignored this moratorium.

In the production structure, the production of commercial fish in ponds and reservoirs has increased significantly in recent years, which is due to the scale of the fishery business due to private initiative. At the same time, the production of fish in cages stopped due to legislative prohibitions. The total production of fish in all segments of fishing in 2015 reached a maximum and amounted to 1000.1 tons.

Table 1. Dynamics of production of commercial fish in Kyrgyzstan

|                     | 2010  | 2011  | 2012  | 2013  | 2014  | 2015   |
|---------------------|-------|-------|-------|-------|-------|--------|
| Catch of fish, tons | 346.4 | 374.1 | 297.1 | 654.0 | 805.3 | 1000.1 |

In the Kyrgyz Republic commercial fishing, after the ban on fishing on lakes Issyk-Kul and Son-Kul, as well as after the ban and money for them cage farming, was carried out mainly on the fisheries developed by the fishery in large fishery water reservoirs: the Toktogul, Kirov, Orto-Tokoy and Bazar-Korgonskoe reservoirs, Kara-Suu Lake . To date, cage farming can be legally established at the Kurpsai HPP and the Toktogul reservoir. The main commercial species of fish in the reservoirs and lakes are Issyk-Kul trout-Gegharkuni, Sig-Ludoga, peled, sazan, bream, tench, pike-perch, white carp, carp, and marinka. Last years there are Norwegian, Dutch, Swedish varieties of trout. Some water bodies for more than 4-5 years are growing sturgeon from which you can get black caviar, as well as clara catfish.

Total commercial fish catches in these reservoirs amounted to 21.6 tons in 2010, 23.5 tons in 2011, 26.3 tons in 2012, 28 tons in 2016 and 29 tons in 2017.

The development of private commercial fishing in reservoirs, in which more than 80 farms and about 300 small farms are currently engaged, in addition to reducing the fish productivity of water bodies, is hindered by the low production potential of fish farms - wear and low equipment productivity, inefficient logistics, difficulties in lending, etc. No conditions to increase the scale of production due to financial constraints. Despite the existence of a mechanism for protecting the interests of households in discharging water from reservoirs (advance notification of water descent, water level adjustment after water discharge, etc.), there are no effective practices for the implementation of these norms. Even so, owners of cage fisheries in reservoirs manage to improve their performance from year to year.

Pond fish breeding is the main and most popular productive direction of modern aquaculture in the Kyrgyz Republic. The total area of pond water fund in today is about 1020 hectares, including 825 hectares for feeding, in which fish are grown without feeding artificial feed. and the growing 195 hectares on which the fish are fed by the owners of pond farms.

Pond fish farming is based on the cultivation of carp and carp. Trout is grown in flowing ponds. The main production for fish production is in Chui and Osh oblasts, where more than 75% of all pond fish are produced. Pond fish breeding is engaged in hundreds of private enterprises. Apart from them, the state enterprise Uzgen state fish farm is engaged in the production of commodity fish in ponds. In 2013, all pond farms produced about 654 tons of commercial fish. The average fish productivity of ponds is about 2-3 c / ha, in the absence of artificial feeding. This is significantly less than the average rate that existed earlier in Kyrgyzstan. The potential volume of fish from pond fish farming in the country, while observing the fish-biological standards, can be 1500-2000 tons of commercial fish.

Today, the technology of intensive fish growing, the updating and maintenance of the number of repair and broodstock, the density of planting of fish, intensive feeding, application of organic and mineral fertilizers, etc. are extremely poorly applied in the industry. The problem is the lack or absence of laboratories that allow analyzing the oxygen content in water, determination of its acidity, etc.

Pond farms are experiencing a significant deficit of capital resources for the renovation of high-cost, low-tech, physically and worn out basic production assets.

Industrial cage culture of fish is a new and promising direction of fish farming for Kyrgyzstan, it is characterized by high economic efficiency. The most favorable water and climate conditions for its development are found on the lake. Issyk-Kul, in reservoirs of the Naryn cascade of hydroelectric power stations. Cage farms at the Kurpsai and Toktogul hydroelectric power stations show great success.

The Issyk-Kul cage enterprises for the production of rainbow trout in 2011 produced a production volume of up to 230 tons of fish. The introduced ban on the production of cage fish due to uncontrolled penetration of rainbow trout into it, led to the curtailment of production. Cage farms after the prohibition of activities on the lake. Issyk-Kul, there were problems of transferring production to other water bodies.

At the same time, the water areas of the reservoirs, suitable for cage fishery, are practically not mastered. A very small amount of precipitation of the farm works on the reservoirs of the Naryn cascade of hydroelectric power stations. Despite the risks arising from the discharge of water during the production of electricity, these farms steadily demonstrate the high productivity and high quality of the farmed fish.

The main problem, while solved by import, for the development of aquaculture is the absence in the country of special enterprises for the production of full-value, with the use of local raw materials, balanced vitaminized fish feeds, affordable for fish farmers. The situation in the industry is also hampered by the low capacity of existing fish processing enterprises. Logistics, which does not provide

fast delivery of high-quality fresh products to large settlements, is not entirely efficient either. It is also a limitation of sports that all shipments of products are carried out exclusively by vans-refrigerators on automobile traction. The presence of railways in the exporting countries would facilitate the situation. However, while the railway is only in Kazakhstan.

### 1. 5.3. Business concept

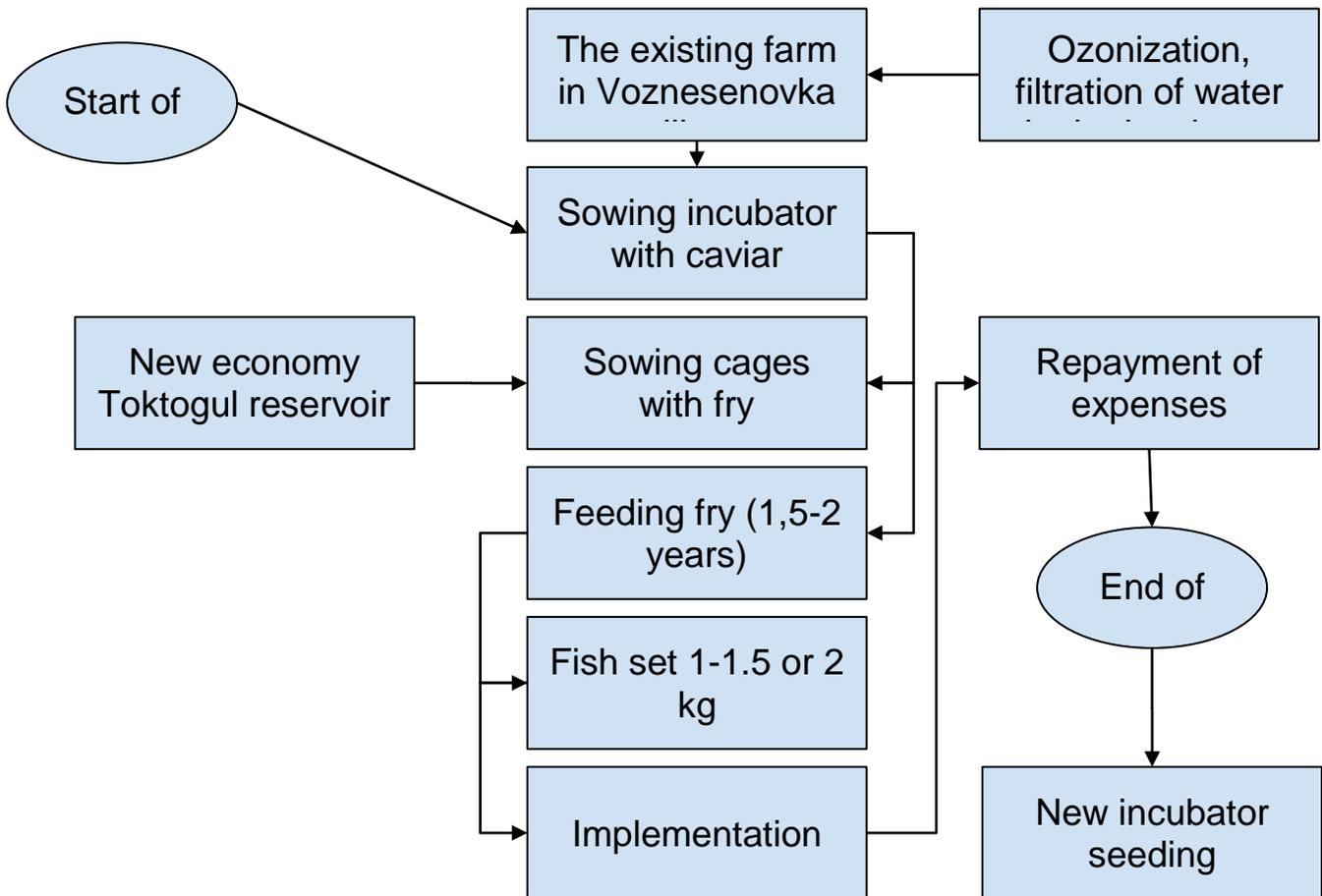


Fig. 3. The concept of business

The basic concept of business consists of a certain cycle. The cycle consists in the fact that in the beginning the production capacities are prepared, the preparation of water for the fertilized caviar is carried out. The incubator is sown with fertilized caviar and nutrients are obtained in special filtered water. After incubation, the fry from the incubator hatches in the incubator, they reach a certain weight and after passing the fish counter they land in a cage. The fish enters a fry plant in which it reaches a certain weight of 200-300 g. When this weight is reached, the fish is planted in an adult cage where the fish will spend the remaining year and a half. During this time, she gaining weight in relation to one kilogram of food - 1 kg of weight. During the year she dials up to a kilogram of weight, for a year and a half or 2 years, she can gain 2 kg. When the fish reaches the commercial weight, the commodity weight

reads 500 grams, it is caught and processed. After catching, a part of the fish is sent to the partners in the form of live fish. For this purpose special tank trucks with pure ozonated water are used. Part of the fish is cut and frozen. Ice icing is formed with the ability to store fish up to 3 - 4 months with preservation of quality. It can be transported to various points or for export in refrigerated vans. Part of the fish within the concept of this project will be processed in shops that will be built inside the fishery. They will produce cutting, smoking, drying, preparing semi-finished products, canning. There they will pack the finished products after the cycle and processing, send them to local retail outlets, or export them already with classical transport, depending on the stability of the package to the temperature, humidity and transport time.

The concept of business is that today there is already a trout farm and a pond-type pond in the village of Voznesenovka in 60-70 km from Bishkek. At the moment, production of up to 500 tons of fish is carried out. Capitalization of assets has grown over the past year to a value of up to a million US dollars. Now the company plans to start the next cycle of its development, establish a cage farm in the water area of the Toktogul Reservoir. Construct groups of workshops for processing products. Purchase a refrigerated van. Prepare conditions for the construction of a logistics center to store fresh frozen fish, fish products, as well as the prospect of storing cattle meat. To realize this concept, a real project has been prepared.

The purpose of the project is to expand the existing fish farm with bringing its production capacity from 500 tons to 700 tons of fish per year, and the establishment of a cage farm at the Toktogul and Tash-Kumyr reservoirs.



Fig. 4. Mirror of the Toktogul Reservoir



Fig. 5. Toktogul reservoir. View from Earth's orbit



Fig. 6. Tash-Kumyr reservoir

Construction of an expanded incubator for fish fry, purchase of fish feed. Installation ozone generator, filters for water and purchase sheets from polypropylene for manufacturing of fish pools. Creation of infrastructure for working personnel in production with increased comfortable working and

resting conditions. The acquisition of a fleet of 2 boats and 1 schooner. The acquisition of a fleet of vehicles from a tanker for the transport of live fish and two refrigerator autofuras.

The main goal of the project, achievement of production capacity and sales volume of fish industry up to 700 tons of fish per year by December 31, 2023.

The main goal of the project is also to create a system of consistency of high quality. Formation of the condition and implementation of HACCP, ensuring the safety of production, storage and transportation of meat and fish food products. Conducting standardization in accordance with international standards and regulations, as well as technical regulations of the Eurasian Economic Union "On the Safety of Fish and Fishery Products" (TR EESP 040/2016), adopted by the Decision of the Council of the Eurasian Economic Commission of October 18, 2016 No. 162. Implementation of ISO 12875: 2011 "Traceability of products from fishing facilities. Requirements for information recorded in the distribution chains of caught fish objects. "Refining business processes to ensure free access to international markets. For the expert perspective - the implementation of national standards of the People's Republic of China - a new system of mandatory certification of products CPCS (Compulsory Product Certification System). Requirements of Chinese official bodies for the quality of fish products. Passing of certification on the PRC system - First Catalog of Products Subject to Compulsory Certification. Provision of sustainable sales channels to Russia within the framework of the Eurasian Economic Union, Kazakhstan, the People's Republic of China.

The planned amount of loan financing for the expansion project is \$ 3 million.

## 2. 5.4. Strategy of the project The

main strategic goal of the project is to increase the volume of fish produced and sell it up to 500 tons per year. The main strategy is to scale production. The construction of sales channels in the countries of the Eurasian Economic Union and the emphasis on the Chinese market of fish products consumption. Implementation of certification According to international standards and requirements, including China's demand for quality and safety of the fish products produced by the farm. In terms of pricing, adherence to the market price strategy. Creation of conditions for the ability of long-term storage of fish products.

## 3. 5.5. SWOT-analysis of the industry

|                              |                               |                             |
|------------------------------|-------------------------------|-----------------------------|
| S. Strengths of the industry | W. Weaknesses of the industry | Countermeasures of weakness |
|------------------------------|-------------------------------|-----------------------------|

|  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>● 55 thousand hectares for the cultivation of fish with water of high quality</li> <li>● accumulated experience of fish growing by the main branches of the</li> <li>● presence of flowing water accumulators that prevent the occurrence of fish diseases typical for continental fish</li> </ul>  | <ul style="list-style-type: none"> <li>● only 2% of the total area of the water area is used country fit for the cultivation of commercial fish</li> <li>● farmers lack of funding and processors, partially solvestoday</li> <li>● expensive for caryl logistics, lack of railways, sea routes to transport goods for export</li> </ul>  | <ul style="list-style-type: none"> <li>● are no restrictions on the zoom magnification Business</li> <li>● of the Russian-Kyrgyz Development Fund and several other organizations begin to fund fish production</li> <li>● value chain, road transport for the current acquitted, for lack of other channels of communications</li> </ul>                 |
| <p>O. industry opportunities</p>   | <p>T. Threats</p>   | <p>Countermeasures to threats</p>   |
| <ul style="list-style-type: none"> <li>● Kyrgyz Republic can produce up to 35 million tonnes of food fish, trout</li> <li>● Near KYR RMS th P of the Republic is the huge Chinese market, standard of living which is growing as a result there is a demand for healthy food</li> <li>● KR has a membership in the EAEC and the WTO, and certain preferences for duty-free import of fishery products</li> </ul> | <ul style="list-style-type: none"> <li>● The main threats in the countries of the EAEC is protectionism, destroy the ability or expand production in the absence of a proper certificate or for political reasons, at the border of</li> <li>● China vigorously protect domestic markets, there may be delays in delivery of the goods to the Chinese market</li> <li>● nature nye of disaster management, earthquake, heat, flood</li> </ul> | <ul style="list-style-type: none"> <li>● Diversification of markets Meeting the requirements of Chinese government agencies for food safety certification for the trout</li> <li>● to an open incubators, regulation cages anchors for</li> <li>● tracking weather, the development of standard acts at this or at any other natural disaster.</li> </ul> |

4. 6. CHARACTERISTICS OF THE PRODUCT OF BUSINESS

5. 6.1. Value Chain Analysis The value

chain consists of the following links. The main cost is the price of seed, fertilized caviar, as well as the cost of fish feed. At the very start, the company practically bears 90% of the expenditure, 5% on seeding and 85% of the fish feed. Feeds are stored and the process of feeding the fish begins for a whole year or 2 years. Accordingly, energy costs and wages of fish farmers are allocated during feeding. During the growing of fish, the presence of pathology or damage is checked, water quality is checked. At the end of the cycle, the catch begins. Then about 15% of the cost of fish is spent. This is the catch and transportation to the implementation points. In the case of processing, the cost of fish increases with the cost of labor in the processors. Certain consumables are used. If processing is in progress, the cost of production can be 70% for growing, processing - 25%. Trade costs 5% on the wholesale market. Manufacturers are laying out a net margin margin of 30 to 50%.

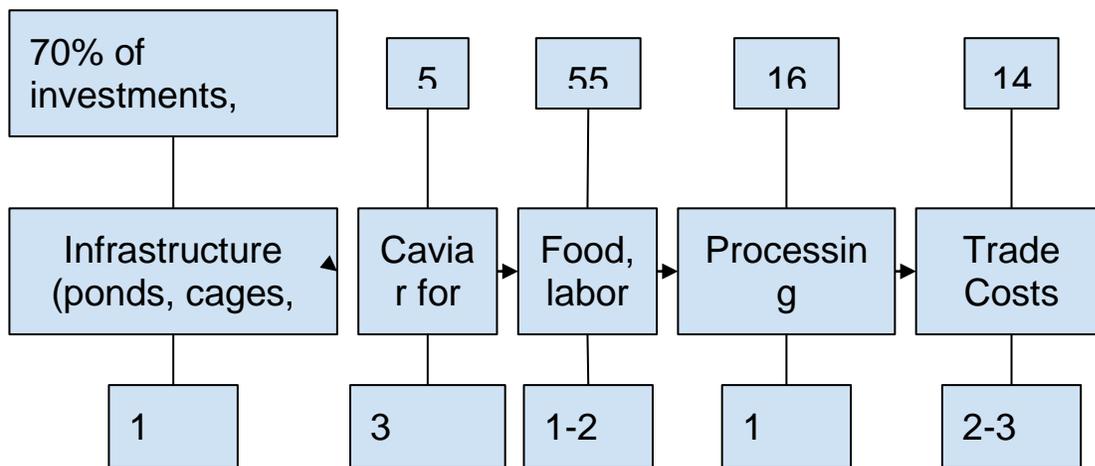


Fig. 7. Cost chain

6. 6.2. Matrix Boston Consulting Group

Trout is the most popular fish product consumed in the society by people with average and above average income. It is positioned as a product of the premium segment. Therefore, relatively expensive trout is more expensive than many types of meat. Last time literally for today the cost of a kilo of trout equaled the cost of a kilogram of beef of the highest grade. Of all fish products, a very large volume of consumption in the premium segment falls specifically on trout.

In its segment, trout refers to the "star", star products of consumption. The tendency to leave this position is not expected.

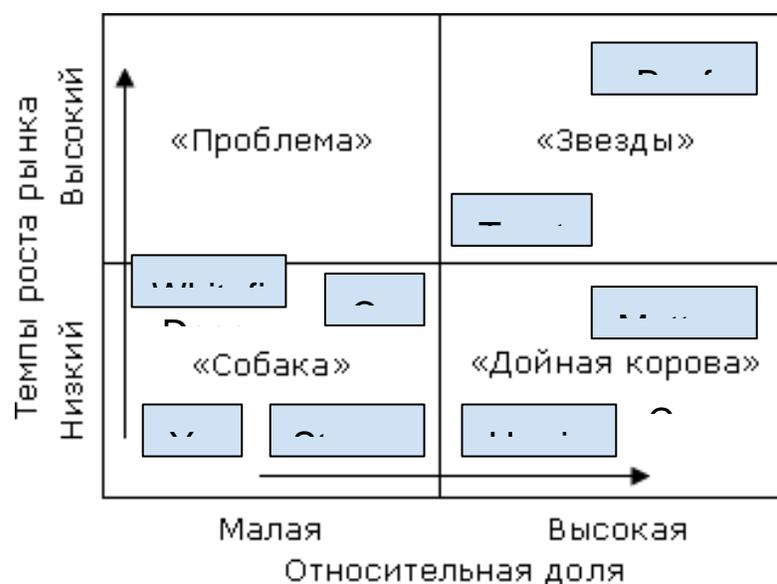


Fig. 8. Matrix of Boston Consulting Group

## 7. ANALYSIS OF SALES MARKETS

### 8. 7.1. Estimation of the size of the market and possible trends in its development

Fish products are sources of fluorine and magnesium calcium phosphorus and many other useful elements that are necessary for daily consumption by each person. The norm of consumption by an adult is 20 kg of fish per year. The Ministry of Health of the Soviet Union at one time recommended consumption of at least 16 kilograms of fish per year. To date, the World Health Organization recommends consuming at least three servings or 600 grams of fish per person per week. In this respect, on the Continental part of the world, due to lack of access to the world's oceans, fish are not available in sufficient quantities. Specificity of logistics, more precisely the absence of the sea, railways, the high cost of road transport increases the cost of imported fish. As a result, the demand for fish farming for the domestic market is very high. 80% of all consumed seafood is imported to the Kyrgyz Republic annually. From the Kyrgyz Republic, almost 1 thousand tons of fish are exported, according to official statistics of the National Statistical Committee for 2016. A total of about 2,000 tons of fish are grown in the Kyrgyz Republic.

The current volume of the fish market in the Kyrgyz Republic is estimated at 1 billion in US dollars. The market of Kazakhstan is estimated at \$ 2.3 billion. The volume of production according to the National Statistical Committee of Kazakhstan is 35 thousand tons. The volume of exports is 20 thousand tons. In the Republic of Kazakhstan there is a need for fish in fish products for their 12 thousand tons. A large deficit in fish products is available in the Republic of Uzbekistan, up to 120 thousand tons. A large demand for fish is also available in the Republic of Tajikistan up to 23 thousand tons. Has a high export potential to the People's Republic of China, which, according to our estimates, can reach \$ 900 million by 180 thousand tons in the first year.

## 9. 7.2. Assessment of the market share and sales volume

The Tien-Shan Trout Company grows more than 100 tons of fish per year. The share of our enterprise in the total volume of fish produced in the Kyrgyz Republic is 5%.

The annual demand of the Kyrgyz Republic for fish is 12.5 thousand tons. In 2018, there is a possibility that fish production has grown to 1.5 thousand tons. That is, the domestic market is not fully saturated. In addition, most of the fish produced in Kyrgyzstan is exported to the markets of Kazakhstan.

## 10. 7.3. Segmentation of the market and definition of a niche of a product of business

End users of production from a trout, and also fresh fish are all types of the population at any age of any floor of any social position. However, the main layer of the population that gets trout for food is the middle and upper class of the population. A study conducted with Aqua Service shows that on average, each Kyrgyz family buys trout once or twice a year. Townspeople basically buy everything trout one or one time in half a year or in a quarter. The middle class buys trout about once a week. The upper class can buy trout up to 2-3 times a week. Only 20% of the population of the Kyrgyz Republic is classified as middle class. This is about 1.4 million people. Up to 1% of the population of the Kyrgyz Republic is referred to the upper class. This is about 70 thousand people. For trout in the premium segment, there are no substitute products, except that the Norwegian salmon is a salmon exported to the Kyrgyz Republic. All other fish products are considered a commodity of a lower consumption segment than trout. The main niche for fresh trout production is the middle and upper class of the country. The same situation exists in Kazakhstan, there are more than 25% of the urban population in the middle class, and more than 4% of the total population, and in China, where the middle and upper-middle class is roughly the same as Kazakhstan.

## 11. 8. COMPETITION AND COMPETITIVE ADVANTAGES

### 12. 8.1. Comparative characteristics of competitive products

Table 2. Comparison of competitive products

| Characteristics (1-5 points) | Trout | Herring | Sturgeon | Carp | Salmon | Chicken | Beef |
|------------------------------|-------|---------|----------|------|--------|---------|------|
| Taste                        | 5     | 3       | 3        | 1    | 5      | 3       | 3    |
| Odor                         | 5     | 2       | 2        | 1    | 5      | 3       | 3    |
| Utility                      | 5     | 4       | 5        | 2    | 5      | 3       | 4    |
| Omega fats and acids         | 5     | 3       | 4        | 3    | 5      | 1       | 1    |
| Prestige of                  | 5     | 2       | 3        | 1    | 5      | 2       | 3    |

|                              |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|
| consumption                  |   |   |   |   |   |   |   |
| Popularity to the population | 5 | 5 | 2 | 3 | 4 | 5 | 5 |
| Price-quality                | 5 | 5 | 2 | 2 | 3 | 4 | 5 |

### 13. 8.2. Comparative characteristics of firms-competitors

There are more than 360 fish farms in the Kyrgyz Republic. Almost all of them operate quite successfully. Most of them are engaged in the production of trout. For all of them there is one common problem is the high cost of feed. In the market there is some kind of monopoly of Aqua Service, which sells expensive feeds from Denmark from the company Aller Aqua.

In the Kyrgyz Republic, the following fish farms are registered:

1. Gostev Alexander
2. Baidaliev Orumbay. s.Chon-Oruktu
3. The child Anatoly. from. Oy-Tal of Tyup region
4. "Eshmukambet"
- cooperative 5. "Anvar-Ata"
6. Cascade of water bodies Dolon
7. NGO "Samagat"
8. Nagorny Nikolay
9. BSR "Gospetskhov",  
Nikolaevka village
10. Kudurzhinsky lake
11. Pond "Orozbai"
12. The reservoir of the village of Kohlhof Frunze
13. The "Talaibek" pond farm of Tyupsky district
14. "Golden fish" LLC. Tenant Minkeeva Flora
15. Mikhailovsky Pond (Utyatnik)

16. Turdakhunov Yunus, Lipenka
  17. Ubaliev Kurmanbek, Lipenka, Karakol reservoir 2.0 hectares
  18. Sidenko pond
  19. Drespan Fyodor, the Melnik pond
  20. Bayserkeyev Elmir, village of Lipenka
  21. "Kargin"
  22. Mametov Timurzhin
  23. "Seven Thousand" reservoir, Ruslanzhan NazkabekovBekbaev
  24. Sadyk, "Boldyrev" pond
  25. Omorov Samat, Bogatyrovka village, Kyzylsuu a / o
  26. Kavak upper pond, tenant Oskonbaev Sadyr Seit)
  27. Kawak lower pond
  28. Lake Kokuy-Kol, located below Ak-Dobo (2km)
  29. Lake Green Gai (Podhoz) tenant Raimkulova Fatima
  30. Karavaev Victor Nikiforovich
  31. Lake Kosh-Kara-Kol
  32. Ashirakunov Bektemir
  33. LLC "Karakolbalygy "Balykchylar
  34. LLC 35.
- Tonsky fish breeding plant
36. Sokuluksky Selection pond
  37. Tokmok
- fish farming 38. Toktogul fishery

These enterprises are given for example, there is a state registration on them and they can be tracked by databases. There are more than 300 enterprises that have different sizes and they are already much more difficult to track.

Not included in the list of farms more than 260. All fish farms produce just over 800 tons of fish. The average cost of a unit of fish products in the country is 98 soms, according to the National Statistical Committee.

#### 14. 8.3. Analysis of the competitive situation in the market

Competitive firms are quite active in the market. But for today even they are not able to create a sufficiently tough competition. There is no clash of interests in the markets. This niche is not full. As a result, all companies practically do not experience problems caused by increased competition. Perhaps today it is a temporary phenomenon. While there are no strong clashes between the companies, as well as clashes in any medium-level form.

#### 1. 8.4. Analysis of the Porter's scheme of forces 5

##### The threat of the appearance of substitute products

Trout can replace the Norwegian salmon. However, in Kyrgyzstan it comes only strongly frozen. After defrosting, it loses some of its useful qualities. In this regard, she loses fresh trout, which is often killed immediately before cooking. In other respects, the products for the segment of trout are practically no substitutes. There are indirect competitors such as common fish products and meat. However, they have their own stable segment of consumption. The general conclusion is that the threat of the appearance of substitute products is extremely small.

##### The threat of the appearance of new players

At this stage of the development of the Kyrgyz Republic, trout farms bloom and multiply. More and more producers of agricultural products are interested in and enter the trout farming market. Although the volume of fish produced per year in the country is approximately 800 tons, and the potential of which the Kyrgyz Republic has is 35 million tons, that the domestic demand of the population is still not covered, and most of the fish products are exported to Kazakhstan. And today, to Uzbekistan and China, a large number of competitors in the trout segment is rather a boon. To date, there is not enough competitors in this segment to pose a threat to Tien-Shan Trout.

##### The market power of suppliers

The power of suppliers in the trout market is not total. In logistics in this segment there is a large number of distributors and suppliers for products from trout, for fresh live fish, as well as frozen fish.

There is no dictatorship of supplier prices. As there are a lot of distribution companies, among them there is any size of the company, from those who are ready to supply up to 80 tons of fish per month to the markets of Russia, to those who deal in lots of less than 1 ton. Their power is quite limited, which gives the trout manufacturer a great opportunity to choose the distributor of his products. The Tien-Shan Trout Company plans to implement logistics on its own. Thus, it is planned to reduce even more transportation costs. Accordingly, when selling on the ground, the company will be able to intercept the distributor's margin in favor of Tien-Shan Trout.

#### Market power of consumers

In Kyrgyzstan for the trout segment there are 1.5 million consumers of this fish. China's potential number of consumers is 400 million people. In Kazakhstan, the number of consumers at the level of 3 million people. In Uzbekistan, the number of potential consumers at the level of 5 million people. Despite the collapse of the national exchange rates in Kazakhstan in Uzbekistan, as well as the general slowdown in the pace of economic development, the numbing of trout consumption in these countries has not decreased. On the contrary, consumption increases.

#### The level of competition

In the fishing sector in the Kyrgyz Republic there is a low level of competition. Practically there are no cases of overstocking of the market with products from trout and as a consequence of this spoilage of production. There is no particular struggle for markets. Almost Kazakhstan, Uzbekistan, China accept products without special problems and completely consume lots of trout from the Kyrgyz Republic. The domestic market is characterized by low purchasing power, therefore, trout trade on the domestic market covers almost all retail chains. Kyrgyz citizens do not eat up fish products, but one can not say that all products are consumed in the country. From all the trout cultivated in Kyrgyzstan 80% of trout are exported to Kazakhstan and Uzbekistan today. There is enough space in the market for everyone. Each company does not lack demand. The price of the products is growing. The level of exports to the country abroad is increasing. At this stage, there is practically no competition. Tien-Shan Trout has an advantage due to the supply of feeds much lower in cost and with similar efficiency, compared with those coming from Denmark and Holland. In this regard, the company has a competitive advantage. For the production of local feeds in Kyrgyzstan, insufficient raw materials are available. In the next few years, most likely the whole issue will be the competition will be in the cost of feed for fish. It will be the competition between the suppliers of fish feed. But the competition between farms that produce trout is likely to be long, as we have predicted, for 8-10 years.

## 2. 8.5. SWOT analysis of the company

| S Strengths of the Tien-Shan Trout  | W Weaknesses Tien-Shan Trout   | Countermeasures to weakness  |
|---|--|--|
| <ul style="list-style-type: none"> <li>● Extensive material and collateral base</li> <li>● Unique practical experience in trout farming</li> <li>● Full political legislative support</li> <li>● The opportunity to obtain the water area of the Toktogul and Tash-Kumyr reservoirs has been realized, water area 10 and 5 ha, respectively, where you can grow up to 200 tons of fish.</li> <li>● The presence of partners producing and supplying feed at a lower cost than competing organizations for exclusive use s rights</li> </ul> | <ul style="list-style-type: none"> <li>● Need for qualified ichthyologists</li> <li>● Lack of sufficient funding for rapid growth</li> <li>● Lack of special equipment for transporting live and fresh frozen fish</li> <li>● Lack of a full cycle of fish processing</li> </ul> | <ul style="list-style-type: none"> <li>● Increasing the attractiveness of the company for personnel</li> <li>● Obtaining investments or loans in financial institutions</li> <li>● Purchase of tanker and refrigerator vans</li> <li>● The next step in the development of the company opening a logistics center with workshops for processing full cycle fish</li> </ul> |
| O. Opportunities of the Tien-Shan Trout   | T. Threats   | Countermeasures to threatenings  |
| <ul style="list-style-type: none"> <li>● unlimited expansion of business</li> <li>● Preliminary arrangements allow to enter the export to China</li> <li>● Diversification of products, the transition from the sale of fresh raw fish for sale of canned fish and finished products from fish</li> </ul>   | <ul style="list-style-type: none"> <li>● Force majeure, natural disasters , water breakthrough in reservoirs</li> <li>● Covering the border with Kazakhstan for the supply of products</li> <li>● Corruption of products during transportation, the</li> </ul>                   | <ul style="list-style-type: none"> <li>● company plans to draw up a certain procedure of actions to deal with force majeure circumstances laying down to save fish in floods and natural disasters</li> <li>● The Company diversifies markets for the supply of products</li> </ul>  |

|  |  |   |
|--|--|---|
|  |  | <ul style="list-style-type: none"> <li>• The Company will carefully select the suppliers of products and create its own fleet of refrigerated vans</li> </ul> |
|--|--|---|

### 3. 9. THE ORGANIZATION OF FOREIGN ECONOMIC ACTIVITY OF THE COMPANY

#### 4. 9.1. Organizational support for foreign economic relations

The Tien-Shan Trout Company already has extensive ties in Russia, Kazakhstan and China with fish products importers. In Russia, contracts have been concluded with Aleksei Ivanovich Balyasnikov, who distributes trout products in the Samara region of the Russian Federation. The contract with him was concluded on March 8, 2018. Preliminary contracts for the supply of fish products with Kazakh and Chinese companies have been concluded. According to these Tien-Shan contracts, Trout supplies frozen trout in the case of Russia, Kazakhstan to the border with Kazakhstan, in the case of China to the border with China, on the terms of FOB incoterms. The negotiation process and the signing of preliminary contracts as well as contracts for the supply of trout for export are ongoing.

#### 5. 9.2. Economic support of foreign economic relations

The Tien-Shan Company Trout has enough money to finance administrative expenses for conducting foreign economic activity. Cash is provided at the expense of the company's current net profit. To date, the company's administrative budget is over \$ 120 thousand.

#### 6. 9.3. Indirect forms of entering the foreign market

Tien-Shan Trout is a member of the Chamber of Commerce and Industry of the Kyrgyz Republic, which has contacts with more than 60 chambers of commerce around the world and maintains a constant relationship with entrepreneurs abroad. The CCI of the Kyrgyz Republic helps to carry out communications. Through the CCI, there is interaction with sales representatives abroad. Through them, a process of negotiations with local companies and trout distributors is underway.

## 7. 10. STRATEGY OF THE MARKETING PLAN

### 8. 10.1. General marketing strategy

In the production and distribution of trout, the main marketing strategy is marketing for distributors. Mass marketing communications, such as advertising on billboards, on television, in a running line, all this is not quite effective in this case. The most effective way is direct contacts, direct marketing with heads of large trading networks, and distributors. It matters the release of product catalogs, the issuance of prices and offers. Very important role is played by correspondence through the Internet through WhatsApp, joining telegrams and vatsap groups, in which distributors, manufacturers, and trout providers are gathered. Therefore, the company Osadchy shani trout marketing costs are minimal. The main marketing is carried out through direct negotiations direct meetings of distributors and heads of retail networks.

### 9. 10.2. Pricing

The basic policy of pricing of the Tien-Shan company Trout is primarily a reliance on market pricing. Market demand today has formed at the level of 450 soms per kg for fresh or fresh-frozen trout. At this price, the cost price can be from 50% to 70% of this amount per kg. In the case of perfect compliance with all conditions of trout farming, the cost price can be up to 40%. In this case, the margin is 60-50%. The final price in retail is naturally influenced by such factors as customs duty, the difference in taxes of other states when importing, and directly transportation. The company seeks to minimize all costs and obtain the largest part of the margin within the market value for each kilogram of trout.

### 10. 10.3. Tactics of product

realization The product is realized through preliminary agreements on the supply of products to the distributor. For several years, Kazakh, Chinese, Uzbek distributors realized that Kyrgyz trout is of high quality and meets all the requirements of discerning customers. Therefore, implementation does not cause special difficulties. After a preliminary agreement on the appointed day and hour, when the trout is ready for sale, the delivery simply agrees and either the distributor takes the trout out of its transport from the farm or the trout farming company delivers the consignment of goods in live form or in refrigerated refrigerated trucks in the form of a warehouse distributor. Further, the distributor realizes through its own distribution channels. At the moment, this tactic is working, and fully justifies itself.

### 11. 10.4. After-sales service and guarantee policy

At the moment, in the history of the company, as well as in the history of other competitors and partners in growing trout, there is practically no practice of returning the goods. This is due to the fact that almost all the volume of commodity trout is consumed by buyers. There are almost no cases of selling foul, stale, or parasitized fish. However, the company is ready to maintain a system of

guarantees, and replace the product in case of detection of its damage through the fault of the manufacturer. Due to the special purity of water in the Kyrgyz Republic, trout is really very high quality and healthy.

## 12. 10.5. Advertising and promotion of the product on the market.

Retail advertising for trout is carried out entirely by local forces of various points, trade networks. As a rule, Tien-Shan Trout is involved in marketing for the end user. Trout is so deeply rooted in the minds of the mass consumer of the middle and above middle segment in terms of income among the population of almost all states where it is delivered, which can be stated - the trout does not need advertising. As a rule, both in Kazakhstan and in Bishkek, trout information is broadcast by word of mouth. And each self-respecting outlet has aquarium boxes with live trout and refrigerators with frozen.

## 13. 11. SALES PLAN

### 14. 11.1. Factor analysis of sales

Table 3. Plan of sales of finished products

|                      |              |              |              |              |              |              |                |              |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| Production in tonnes | 502.00       | 562.24       | 629.71       | 667.49       | 687.52       | 708.14       | 743.55         | 765.86       |
| Price in \$ per kg   | 6.57         | 6.90         | 7, 24        | 7.60         | 7.99         | 8.38         | 8.80           | 9.24         |
| Realization          | 3 297 810.22 | 3 878 224.82 | 4 560 792.39 | 5 076 161.92 | 5 489 869.12 | 5 937 293.46 | 6 545 866 , 03 | 7,079,354.12 |

### 15. 11.2. Break-evenThe break-even

pointpoint occurs after a year and four months, as soon as the trout goes on sale, reaches the commercial weight, which is at least 0.5 kg, and should normally be 1-1.5 kg. By the end of the year, as a rule, to winter in December of this year, with the start of incubation of fry in January of this year, the first fish sales begin and by April next year, the whole lot is being sold. After the implementation, which takes up to 2-3 months, the breakeven point is immediately reached. In general, it can be argued that the average break-even point is reached in 1 year.

## 16. 12. PRODUCTION PLAN

### 17. 12.1. Production cycle

The average production cycle takes over 1.5 years. The ideal production cycle, so that the fish has reached a weight of 2 kg, lasts 2 years. The highest costs go to fish food and protection of cages.

By the number of fry, it is expected to seed in the following order.

Table 4. plan of young fry

| Seed Sowing of young fry | 2019       | 2020       | 2021       | 2022       | 2023       | 2024       | 2025       | 2026       |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Main herd                | 416 666,67 | 468 533,33 | 524 757,33 | 556 242,77 | 572 930,06 | 590 117,96 | 619 623,86 | 638 212,57 |
| Belay flock              | 62 500,00  | 70 280,00  | 78 713,60  | 83 436,42  | 85 939,51  | 88 517,69  | 92 943,58  | 95 731,89  |
| Total fry incubating     | 479 166,67 | 538 813,33 | 603 470,93 | 639 679,19 | 658 869,57 | 678 635,65 | 712 567,43 | 733 944,46 |

### 18. 12.2. Production capacities and their development

Current production capacities:

At the moment, in the company of Tien-Shan Trout, there is a cage farm in the village of Voznesenovka in Zhayilsky district of Chui oblast. There are over 15 cages of which 5 are fry. The production capacity is 450-500 tons of fish per year. At the moment, a cycle has been launched, which has lasted 8 months. That is, in December 2018, from 300 to 450 tons of trout will be introduced to the market. The current production capacity strongly depends on the number of cages. In one cage, up to 15 tons of fish can be placed. In the current water areas, from 500 to 1,000 tons of fish can be produced. Gradually, with intensive trout breeding and the development of the fish industry, it is planned to go out to these capacities, accordingly, to purchase special cages more.

Planned production capacity from 2019.

Since 2019, 35 cages are planned to be located on the Toktogul and Tash-Kumyr reservoirs, each with a volume of 15 tons of fish. The production cycle will last from one year to one and a half, with each year it is planned to increase the production capacity and bring the volume of trout farmed from 500 to 700 tons per year. Prospects available for the company gives the water area of 10 hectares on the mirror of the Toktogul reservoir, the cultivation of fish with the volume of live weight up to 200 thousand tons. 5 hectares in the water area of the Tash-Kumyr reservoir were also received. Accordingly, on the mirror of the reservoir of artesian water - a pond in the village of Voznesenovka can

be used to produce from 400 to 2000 tons of fish in cages. There, pre-fertilized eggs will be predominantly incubated before sowing in the cages at reservoirs.

### 19. 12.3. Strategy for resource provision and production plan

The main strategy for ensuring the production of raw materials is that fodder for fish will be bought in one tranche in 1-2 lots at a price much lower than the market by almost 35%. The cost of feed will cost 100 soms per kilogram. The market value of feed is 140-170 per kilogram. For each production cycle, batches of feed will be purchased equal to the volume planned for the production plan. The main strategy of Tien-Shan Trout is to reduce costs in production costs while simultaneously scaling the business. In addition, measures will be provided to increase the survival rate in trout to 100%. The most basic task in this case is to ensure the survival of fry. As a rule, from 5 to 30% of fertilized eggs can be unfertilized on delivery. For 100% is taken hatched caviar from which the fry formed. And now the survival rate of fry should be 100%. For this, it is necessary to have indoor incubators, pools for incubators, clean filtered artesian water, ozonation and a strictly defined temperature. For insurance of the planned volumes, a safety harnessing of an additional 5 cages will be carried out. They will grow a certain amount of fish in case it is necessary to provide an exact number of supplies to customers. Overproduction is possible at a percentage of 12. So far, as practice shows, the demand for sustainable supplies is quite extensive. Therefore, we expect a moment of overproduction. The following is a detailed production plan in the table.

Table 5. Production plan for 8 years

| Plan                 | 2019         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Production in tonnes | 502.00       | 562.24       | 629.71       | 667.49       | 687.52       | 708.14       | 743.55       | 765.86       |
| Price in \$ per kg   | 6,57         | 6.90         | 7.24         | 7.60         | 7.99         | 8.38         | 8.80         | 9.24         |
| Implementation       | 3 297 810.22 | 3 878 224.82 | 4 560 792.39 | 5 076 161.92 | 5 489 869.12 | 5 937 293,46 | 6 545 866,03 | 7 079 354,12 |

It should be noted that this production capacity applies only to fish grown inside cages. Potentially, the Tien-Shan Trout company receives a site in 10 hectares of water area of the Toktogul reservoir, today all the documents are completed. This area can grow up to 200 thousand tons of trout in cages without loss of quality.

## 1. 12.4. State and legal regulation The

state today fully supports the producers of fish products, especially trout and sturgeon farms. The government actually exempts from taxes on VAT, sales tax, in some cases exempts companies that produce trout, including companies engaged in the processing of fish raw materials, from profit tax. Despite the fact that the moratorium announced by the Government of the Kyrgyz Republic, the exempting agricultural producers from VAT expires by the first of September 2018, to date, the Government is considering the possibility of full exemption from VAT and profit tax for enterprises engaged in growing agricultural products and processing agricultural products. So, in this regard, the support from the Government is complete. Moreover, the Tien-Shan Trout company also enjoys the support of a part of the Parliament, as well as the Office of the President of the Kyrgyz Republic. Since the company was represented and nominated as one of the best companies in 2017-2018. accordingly received certain letters and preferences from the President of the Kyrgyz Republic. Political support is complete. Trout products are a certain export pride of the Government of the Kyrgyz Republic.

## 2. 12.5. Possibilities for improving and improving the product

The company is considering the possibilities of improving the product. As an improvement, the introduction of complete processing of fish raw materials is considered. Typically, trout is a specific product that is consumed fresh. Consumers who buy trout from all households in the Kyrgyz Republic buy it, usually live or freshly frozen. Important in consumption is slaughtering and cutting trout immediately before cooking by use. However, after the production of trout while processing the freshly frozen trout, a lot of waste remains, such as parts of fins, intestines, air bubbles. From the entrails of the trout is planned to create two types of products, humus for fertilizing fields and mineral fertilizing, animal feed. In the future, it is planned to process part of the waste products of the cutting shop in feed for the very same trout. Also from the part of trout meat you can start to produce exotic types of products to date. This trout chips, trout tenderloins for beer are heavily salted, as well as canned premium segment of trout meat. Thus, it is planned to diversify production to create long-lasting products, with the maximum added value for getting the company the maximum profit that can be extracted from the market. The launch of new products is a risky enterprise, therefore the share of processing trout fish into these types of products will be small at first, up to 30% of the grown volume. Depending on how these types of products will go to the market in the premium segment, a decision will be made to expand the production part of the trout processing. Below is a table of the list of equipment that is necessary for the organization of this processing.

Table 6. Planned workshops

| No | Equipment                         | Elements of the production complex |
|----|-----------------------------------|------------------------------------|
| 1  | cutting tables, cutting machines, | cutting shop                       |

|   |   |                                       |
|---|---|---------------------------------------|
| 2 | refrigerator chambers comma equipment for creating a low vacuum           | logistic center                       |
| 3 | equipment for the production of ice glaze, installation of shock freezing | cutting shop                          |
| 4 | equipment for high-temperature drying and smoking of fish                 | smokehouse                            |
| 5 | equipment for cutting and freeze-drying the fish                          | shop for the production of fish chips |
| 5 | equipment for heat treatment and conservation fish                        | canning plant                         |
| 7 | equipment for packaging products  | packaging plant                       |

data list of equipment will be purchased as part of the formation of a trade and logistics center at the company Tianshan Trout.

### 3. 13. ORGANIZATIONAL PLAN AND MANAGEMENT

#### 4. 13.1. The staffing

Table 7. The staffing

| The staffing             |          |                 |        |
|--------------------------|----------|-----------------|--------|
| function                 | rate KGS | Social Fund som | Number |
| Director                 | 68000    | 11560           | 1      |
| Accountant               | 35000    | 5950            | 1      |
| Administrative Assistant | 42000    | 7140            | 1      |
| Aqua farmers             | 25000    | 4250            | 25     |
| Driver                   | 30000    | 5100            | 3      |
| guard                    | 25000    | 4250            | 6      |

#### 5. 13.2. Organizational structure The

organizational structure at the head of the company is the founder, namely Ilgiz Saryldyk uulu. He decides on the strategy and tactics of the company's development. The company is headed by Ilgiz Saryldyk uulu. He is the General Director with the right of signature responsible for operational

management. He has an assistant. The Assistant submits to the senior fish farmer, and an accountant. The accountant administers the financial flows and records management of the company directly. The main fish farmer carries out the entire technological process and cycle of production of each batch of trout. Under the guidance of a fish breeder there is an ichthyologist consultant, as well as fish farmers. The number of fish farmers is 25 people. The number of security is 6 people. They conduct round-the-clock video surveillance and protection of fish cages and lands. Among the guards and fish farmers there are personnel of four people with diving skills. Divers lead a planned inspection of the integrity of the cages. In turn, the grid is equipped with signaling systems for grid breakthroughs. Since there were cases of kidnapping of fish from cages in small batches by some divers by amateurs. Therefore, the grid will have a system of enhanced security. Security officers carry out control round the clock in all cages.

## 6. 13.3. Chief executives of the company

The chief executive of the company - Ilgiz Saryldyk uulu owns the basic assets and has the right to sign. The Constituent Assembly takes all strategic decisions in the company. While the other shareholders and beneficiaries are not present, the Company is 100% owned by one founder. Certain moments or conflicts that may be associated with the share section are not expected. The company plans to work with credit products or expansion of business development. A share assignment or the sale of a stake in the company is not planned.

## 13.4. Other investors

To date, the company has no investors, co-owners share. The company plans to attract investors and offers the following conditions for them. The business with a profitability of over 148% per annum is offered, the investor is offered 49% of the profit. Accordingly, the investor fully shares the risks and benefits of the project change. With the expansion of production, accordingly, the investor gets the opportunity and the right to an expanded profit. At the same time, it is proposed to conclude an agreement according to which the investor has the right to a stake of 49% per annum within 5 years after the start of the modernization of the project, after a two-year grace period. In this case, the investor will receive the following amount according to the schedule in Tab. 8.

Table 8. Investor Interests

| Shares                               | 2019          | 2020          | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
|--------------------------------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Net income                           | 1,993,070.79  | 2,412,935.41  | 2,913,604.63 | 3,257,140.56 | 3,500 214.70 | 3,760,861.10 | 4,150 009.25 | 4 458 443.48 |
| Return on investment to the investor | -3 000 000.00 | -3 000 000,00 | -86 395.37   | 86 395.37    | 0.00         | 0.00         | 0.00         | 0.00         |
| Share of the investor's profit       | 0, 00         | 0.00          | 0.00         | 1 595 998.87 | 1 715 105.20 | 1 842 821.94 | 2 033 504.53 | 2 184 637.31 |

|                                      |              |              |             |              |              |              |              |              |
|--------------------------------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Share of profits of Tien-Shan Trout  | 1 993 070.79 | 2 412 935.41 | - 86 395.37 | 1 661 141.68 | 1 785 109.50 | 1 918 039.16 | 2 116 504.72 | 2 273 806.17 |
| Full refund with interest in 4 years |              |              |             |              |              |              |              |              |

Thus, the net profit of the investor to make such a sum. The return on investment of the investor will come after a certain period. At the same time, the aggregate amount of the return on investment and the amount of profit will amount to this amount.

### 7. 13.5. Hiring and bonus system

The Tien Shan Company Trout hires residents in rural areas to provide jobs for regional residents. The company carefully trains its employees in the fishing business. The company pays an average high market price for a fairly high salary, wore. Wore the usual salary is considered very high. Standard handymen fish farmers receive 25 000 soms. Money is charged for exits and actual workings. If, at the request of the management, the workers have recycled, they are paid a premium amount of processing time. In the company, the business cycle is conducted around the clock throughout the year, so the workers are divided into shifts. Payment is for an 8 hour shift. In 24 hours 3 shift work is used. Security service operates around the clock for remote video surveillance and on posts. Also, the security guards work around the clock in 3 shifts. At the same time, protection is received from 25 thousand soms, depending on the complexity of the site.

### 8. 13.6. Professional advisers and services

The company has a number of advisers and consultants. In particular, the company Aqua Service provides limited consulting services. There are agreements with the Department of Ichthyology of the Moscow State University. Ichthyologists tell and advise the company about carrying out certain preventive measures to protect trout from diseases. Despite the fact that Kyrgyzstan is very clean, there are practically no fish diseases, Tien-Shan Trout anticipates any possibility and risks in this regard, carries out the necessary preventive measures.

## 9. 14. INVESTMENT PLAN

Table 9. Investment plan

| No | Cost       | Item     | Units Quantity | Cost \$    | Delivery  | Amount \$  | Power | Unit of measurement. capacity | Operating period | Supplier                |
|----|------------|----------|----------------|------------|-----------|------------|-------|-------------------------------|------------------|-------------------------|
| 1  | Large boat | Instance | 1              | 108 000,00 | 11 000,00 | 119 000,00 | 208   | Displacement ton              | 15 years         | <a href="#">Kurilsk</a> |

|    |   |                      |         |                        |           |                     |     |                           |          |                        |
|----|---|----------------------|---------|------------------------|-----------|---------------------|-----|---------------------------|----------|------------------------|
| 2  | Small boat  | Copy                 | 2       | 9 970.59               | 7 000.00  | 26 941.18           | 1   | ton displacement          | 15 years | <a href="#">Bester</a> |
| 3  | Fry Gardens   | Set                  | 5       | 17 000.00              | 5 000.00  | 90 000.00           | 10  | tonnes                    | 20 years | KR                     |
| 4  | Adult fish tanks  | Kit                  | 35      | 17 000,00              | 35 000,00 | 630 000,00          | 15  | tonnes                    | 15 years | KR                     |
| 5  | Ozonator, a water filter, a fry count and an automatic feeder | Set                  | 3       | 51 617.65              | 5 000.00  | 159 852.94          | 250 | cubic meters              | 15 years | Russia                 |
| 6  | Tanker with aeration plant                                    | Instance             | 1       | 87 573.53              | 4         | 600.00 92<br>173.53 | 15  | tons                      | 99 years | <a href="#">Russia</a> |
| 7  | Premises  | sqm.                 | 300     | 190.00                 | 0.00      | 57 000.00           | 25  | persons                   | 20 years | KR                     |
| 8  | guard   | m.                   | 3000    | 10.00                  | 0.00      | 30 000.00           | 2   | m height                  | 50       | KR                     |
| 9  | Refrigerated van  | instance             | 2538.46 | 61                     | 10 800.00 | 133 876.92          | 14  | t                         | 10s      | <a href="#">MAN</a>    |
| 10 | surveillance system   | complex              | 3       | 16<br>000.00000.<br>00 | 48        | 000.0096            | 50  | quantity chambers         | 10 years | LLC Delta<br>KR        |
| 11 | Margin feeds  | tons                 | 600     | 1 764.71               | 000.00 12 | 1 070 823.53        | 1   | kg weight to fish in 1 kg | 1 year   | Russia                 |
| 12 | Circulating Assets  | Soms                 |         |                        |           | 494 331,90          |     |                           |          |                        |
|    | Total   | Required investments |         |                        |           | 3 000 000.00        |     |                           |          |                        |

Investment objects:



Fig. 9. Boat for catching fish from cages



Fig. 10. Boat for maintenance of cages and feeding fish



Fig. 11. Refrigerated vans



Fig. 12. Tank truck for transportation of live fish



Fig. 13. Ozonator



Fig. 14. Filter for water purification

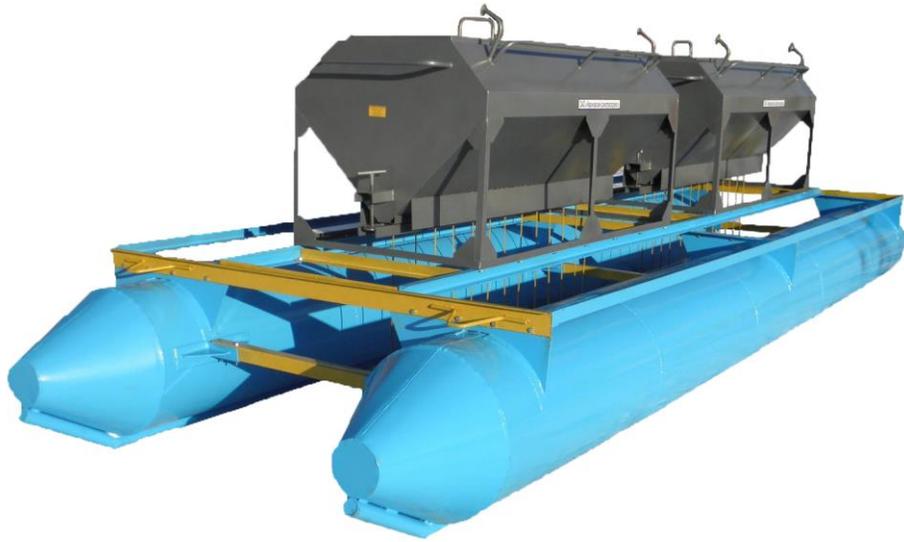


Fig. 15. Car feeder for fish

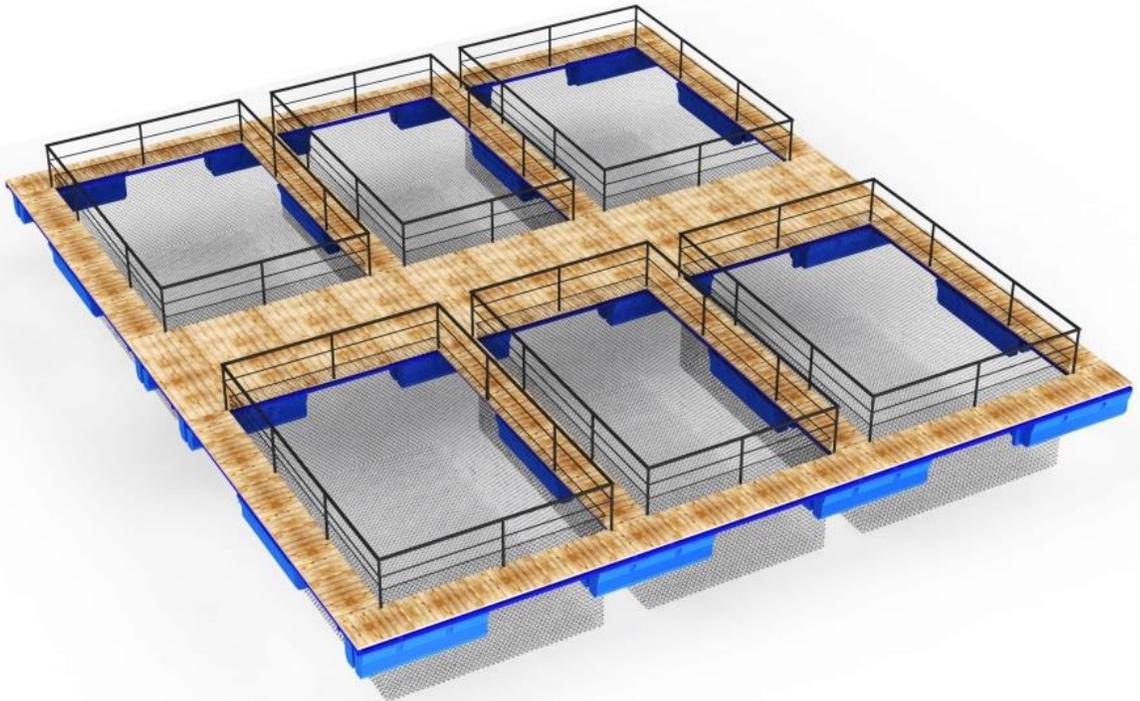


Fig. 16. The fry plant



Fig. 17. Adult fish tank

10. 15. FINANCIAL PLAN

11. 15.1 Annual production cycle

Table 10. Annual production cycle Annual production cycle

| Table                      |               |            |            |         |          |        |      |      |      |        |           |         |            |            |
|----------------------------|---------------|------------|------------|---------|----------|--------|------|------|------|--------|-----------|---------|------------|------------|
| Consumption / income       | Item Measure  | November   | November   | January | February | April  | May  | June | July | August | September | October | November   | December   |
| Incubation of caviar       | U measurement | Ноябрь     | Декабрь    | Январь  | Февраль  | Апрель | Май  | Июнь | Июль | Август | Сентябрь  | Октябрь | Ноябрь     | Декабрь    |
| costs of fertilized eggs   | PC            | 416 666,67 | 416 666,67 | 0,00    | 0,00     | 0,00   | 0,00 | 0,00 | 0,00 | 0,00   | 0,00      | 0,00    | 416 666,67 | 416 666,67 |
| issue 50 gram fry fry tank |               |            |            |         |          |        |      |      |      |        |           |         |            |            |

|  |     |               |               |               |                |                |                |                |                |                |                |               |                |                |
|--|-----|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|----------------|
| Issue 100 gram fingerlings in the pond adult | PC  | 0,00          | 0,00          | 412 500,00    | 412 500,00     | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00          | 0,00           | 0,00           |
| consumption                                  | PC  | 0,00          | 0,00          | 0,00          | 0,00           | 408 375,00     | 408 375,00     | 408 375,00     | 408 375,00     | 408 375,00     | 408 375,00     | 408 375,00    | 408 375,00     | 408 375,00     |
| Costs for food                               | T   | 20,83         | 20,83         | 25,00         | 25,00          | 51,04          | 51,04          | 51,04          | 56,04          | 61,04          | 69,04          | 81,04         | 20,83          | 20,83          |
| Electricity expenses of the                  | KGS | 1 875 000,00  | 1 875 000,00  | 2 250 000,00  | 2 250 000,00   | 4 593 750,00   | 4 593 750,00   | 4 593 750,00   | 5 043 750,00   | 5 493 750,00   | 6 213 750,00   | 7 293 750,00  | 1 875 000,00   | 1 875 000,00   |
| fuel consumption                             | KGS | 5 200,00      | 6 240,00      | 5 200,00      | 6 240,00       | 5 200,00       | 6 240,00       | 5 200,00       | 6 240,00       | 5 200,00       | 6 240,00       | 5 200,00      | 12 000,00      | 12 600,00      |
| Depreciation of equipment                    | KGS | 27 900,00     | 27 900,00     | 27 900,00     | 27 900,00      | 27 900,00      | 27 900,00      | 27 900,00      | 27 900,00      | 27 900,00      | 27 900,00      | 27 900,00     | 36 000,00      | 38 000,00      |
| Salary of                                    | KGS | 12 000,00     | 13 000,00     | 14 000,00     | 18 000,00      | 18 000,00      | 18 000,00      | 18 000,00      | 18 000,00      | 18 000,00      | 18 000,00      | 18 000,00     | 18 000,00      | 18 000,00      |
| Other expenses of                            | KGS | 875 000,00    | 875 000,00    | 875 000,00    | 875 000,00     | 875 000,00     | 875 000,00     | 875 000,00     | 875 000,00     | 875 000,00     | 875 000,00     | 875 000,00    | 875 000,00     | 875 000,00     |
| Tonnage of fish accrual total                | KGS | 11 000,00     | 11 000,00     | 11 000,00     | 11 000,00      | 11 000,00      | 11 000,00      | 11 000,00      | 11 000,00      | 11 000,00      | 11 000,00      | 11 000,00     | 11 000,00      | 11 000,00      |
| Fish for sale                                | T   | 20,83         | 41,67         | 66,67         | 91,67          | 142,71         | 193,75         | 244,79         | 300,83         | 361,88         | 430,92         | 511,96        | 20,83          | 41,67          |
| Proceeds from the sale of                    | T   | 0,00          | 0,00          | 0,00          | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 170,65        | 170,65         | 170,65         |
| total income of                              | KGS | 0,00          | 0,00          | 0,00          | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 76 793 750,00 | 76 793 750,00  | 76 793 750,00  |
| Expenditures for the cumulative total of     | KGS | 0,00          | 0,00          | 0,00          | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 76 793 750,00 | 153 587 500,00 | 230 381 250,00 |
| Redemption investments                       | KGS | 2 794 100,00  | 5 589 240,00  | 8 758 340,00  | 11 928 480,00  | 17 441 330,00  | 22 955 220,00  | 28 468 070,00  | 34 431 960,00  | 40 844 810,00  | 47 978 700,00  | 56 191 550,00 | 59 000 550,00  | 61 812 150,00  |
| Net profit of                                | KGS | -2 794 100,00 | -5 589 240,00 | -8 758 340,00 | -11 928 480,00 | -17 441 330,00 | -22 955 220,00 | -28 468 070,00 | -34 431 960,00 | -40 844 810,00 | -47 978 700,00 | 28 815 050,00 | 105 608 800,00 | 182 402 550,00 |
| Net profit in \$                             | KGS | 0,00          | 0,00          | 0,00          | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00           | 0,00          | 0,00           | 153 587 500,00 |

## 12. 15.2. Profit and loss statement

Table 11. Profit and loss statement Forecasting

| Income statement                 |              |               |              |              |              |                |              |              |
|----------------------------------|--------------|---------------|--------------|--------------|--------------|----------------|--------------|--------------|
| Indicator                        | 2019         | 2020          | 2021         | 2022         | 2023         | 2024           | 2025         | 2026         |
| Revenues                         | 3 297 810.22 | 3 878 224.82  | 4 560 792.39 | 5 076 161.92 | 5 489 869.12 | 5 937 293.46   | 6 545 866.03 | 7 079 354.12 |
| Expenses for ordinary activities | 909 002.21   | 999 902.43    | 1 099 892.67 | 1 209 881.94 | 1 330 870.13 | 1 463 957 , 14 | 1 610 352.86 | 1 771 388.14 |
| Interest on payment              | 0.00         | 0.00          | 0.00         | 1 595 998.87 | 1 715 105.20 | 1 842 821.94   | 2 033 504.53 | 2 184 637.31 |
| Other incomes                    | 0.00         | 0.00          | 0.00         | 0.00         | 0.00         | 0.00           | 0.00         | 0.00         |
| Other expenses                   | 0.00         | 0.00          | 0.00         | 0.00         | 0.00         | 0.00           | 0.00         | 0, 00        |
| Income taxes                     | 199 307.08   | 241 293.54    | -8 639.54    | 166 114.17   | 178 510.95   | 191 803.92     | 211 650.47   | 227 380.62   |
| Net profit / loss                | 1 793 763.71 | 2 171 641, 87 | -95 034.91   | 1 495 027.52 | 1 606 598.55 | 1 726 235.24   | 1 904 854.25 | 2 046 425.56 |

## 13. 15.3. Cash Flow Report

Table 12. Cash Flow Report

| Cash Flow                             | 2019         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Proceeds from sales                   | 3 297 810.22 | 3 878 224.82 | 4 560 792.39 | 5 076 161.92 | 5 489 869.12 | 5 937 293.46 | 6 545 866.03 | 7 079 354.12 |
| Expenses for materials and components | 728 340.44   | 819 240.66   | 919 230.90   | 1 029 220.17 | 1 150 208.36 | 1 283 295.38 | 1 429 691.09 | 1 590 726.38 |
| Fixed costs                           | 728 340.44   | 819 240.66   | 919 230.90   | 1 029 220.17 | 1 150 208.36 | 1 283 295.38 | 1 429 691.09 | 1 590 726.38 |

|   |                |              |               |   |               |               |               |                 |
|---|----------------|--------------|---------------|---|---------------|---------------|---------------|-----------------|
| Salaries and social contributions       | 180 661 , 76   | 180 661.76   | 180 661.76    | 180 661.76                                | 180 661.76    | 180 661.76    | 180 661.76    | 180 661.76      |
| Taxes                                   | 199 307.08     | 241 293.54   | -8 639.54     | 166 114.17                                | 178 510 , 95  | 191 803.92    | 211 650.47    | 227 380.62      |
| Interest expenses                       | 0.00           | 0.00         | 0.00          | 1 595 998.87                              | 1 715 105.20  | 1 842 821.94  | 2 033 504.53  | 2 184 637 , 31  |
| Leasing payments                        | 0.00           | 0.00         | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Cash flow from operating activities     | -909 002.21    | -999 902.43  | -1 099 892.67 | -1 209 881.94                             | -1 330 870.13 | -1 463 957.14 | -1 610 352.86 | -1 771 388 , 14 |
| Purchase of fixed assets                | 1 347 844.57   | 0.00         | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Construction                            | 87 000.00      | 0.00         | 0.00          | 0.00                                      | 0.00          | 0, 00         | 0.00          | 0.00            |
| Other investments                       | 1 565 155.43   | 0.00         | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Cash flow from investment activities    | -3 000 000.00  | 0.00         | 0.00 0.00     | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Shareholder equity                      | 0.00           | 0.00         | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Proceeds from borrowed funds            | 3 000 000 , 00 | 0.00 0.00    | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |
| Loan repayments                         | 0.00           | 0.00         | 2 913 604.63  | 86 395.37                                 | 0.00          | 0.00          | 0.00          | 0 , 00          |
| Payment of dividends                    | 0.00           | 0.00         |               | 1 595 998.87                              | 1 715 105.20  | 1 842 821.94  | 2 033 504.53  | 2 184 637.31    |
| Cash flow from financial activities STI |                |              |               | 6 297 810.22<br>0.00 -2 913<br>604.63 -86 |               |               |               |                 |
| TOTAL CASH FLOW                         | 6,297,810 , 22 | 3 878 224.82 | 4 560 792.39  | 5 076 161.92                              | 5 489 869.12  | 5 937 293.46  | 6 545 866.03  | 7 079 354.12    |
| Cash at the beginning of the period     | 3 000 000.00   | 0.00         | 0.00          | 0.00                                      | 0.00          | 0.00          | 0.00          | 0.00            |

|                               |      |      |      |      |      |      |      |              |
|-------------------------------|------|------|------|------|------|------|------|--------------|
| Cash at the end of the period | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2 046 425.56 |
|-------------------------------|------|------|------|------|------|------|------|--------------|

**14.**     **15.4 . Financial investment analysis**

**15.**     **- Return of Investment (ROI),%**

|        |
|--------|
| ROI    |
| 148,61 |

**16.**     **- Payback Period (PB)**

|         |
|---------|
| PB      |
| 4 years |

**17.**     **- Net(NPV)**

|                                 |
|---------------------------------|
| NPV                             |
| Present Value\$<br>6,218,459.53 |

**18.**     **- Profitability Index (PI)**

|      |        |
|------|--------|
| PI   | Value  |
| 2,07 | PI > 1 |

**19.**     **- Internal rate of return (IRR)**

|     |
|-----|
| IRR |
|-----|

% 94.74