

Ministry of investments of the Kyrgyz Republic

# Investment projects of the Kyrgyz Republic





## **CONSTRUCTION OF KAMBAR-ATA HPP**

#### Key facts

#### Brief information:

The dam side of the Kambar-Ata HPP-1 is located on the river Naryn in a V-shaped canyon, 14 km higher than Kambar-Ata HPP-2

Initiator: Cabinet of Ministers of the Kyrgyz Republic

Location: Jalal-Abad region

Project cost: 2 billion 869 million USD

Payback of the project: 10 years

Feasibility study developed (By SNC Corporation Lavalin International Inc.)

Normal retaining level,	1 198
NPU, m	
Installed capacity, MW	1860
Electricity generation, mln. kWh	5640
Reservoir volume million m3	2730
	dom



#### **Construction infrastructure:**

There is a production infrastructure that has been used during the construction of Kambarata HPP-2.

There are sufficient stocks of quarries of building materials for the construction of the dam of Kambarata HPP-1.

The object is in a close proximity to the highway of republican significance and power lines 500 kWh connecting the North and South of the country.



- Kambar-ata HPP will become the most powerful hydropower power plant and the largest dam with a height of **265 m** in Central Asia.
- There are allocated land plots with the area 6318.8 ha
- Key HPP for the full implementation of the project CASA-1000
- Construction period -8 years

## SUUSAMYR-KOKOMEREN HPP CASCADE

#### **Brief information**

Project financing for the construction of 3 HPPs with a total installed capacity of 1,305 MW and average annual output of 3,317 million kWh includes: Karakol -33 MW Kokomeren 1 -360 MW Kokomeren 2 - 912 MW

#### Project cost: 3.34 billion USD

#### Assignment of object to the territory

Zhayil district of the Chui region and Toktogul district of the Jalal-Abad region.

## Location and registration of the investment object

Suusamyr-Kokomeren HPP cascade is located on the Kokomeren river inflow of which goes from Naryn river. Drainage area is 10400 sq. km, the length - 199 km. The average height of the pool is 2737 m. The highest average monthly temperature is 39 in Chaek village, the lowest temperature is minus 37

#### Objective of the project

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project

The amount of energy generated over the average long-term period will estimate 3317 million kWh with an average annual output.

## The impact of the project on the environment

The project has no negative impact on the environment.

#### Sources of debt repayment

Funds from the sale of electricity

#### Plans for the sale of finished products

Production and sale of electricity in the domestic and foreign markets



## CONSTRUCTION OF KAZARMAN CASCADE HPP

#### Key facts

#### **Construction infrastructure:**

 The existing 155 km-long national highway provides access from the Naryn zone to the

O Construction of an alternative North-South

road has recently begun in this area.

cities of Osh and Jalal-Abad.

○ Precipitation - 303 mm per year.

#### **Brief information:**

Kazarman cascade is located on the river Naryn between Alabuga and Kokomeren rivers' inflow.

Initiator: Cabinet of Ministers of the Kyrgyz Republic

Location: Jalal-Abad region

#### Project cost: 2 billion USD

Construction time: 7 years

	Alabuga Hydroelectric power station	Karabulun HPP- 1	Karabulun HPP- 2	Toguztoro Hydroelectric power station
Normal retaining level, NPU, m	1570	1,370	1,370	1,327
Installed capacity, MWh	600	149	163	248
Electricity generation, mln. kWh	2,358.3	536	852	915.3
Reservoir volume million m3	2835.5	110	110	168.5
HPP type	dam	dam	derivational	dam

Total indicators for the cascade:

Installed capacity - 1 160 MW Electricity generation - 4661.6 million kWh

## **CONSTRUCTION OF SARY-JAZ HPP CASCADE**

#### **Brief information:**

Project financing for the construction of **6** HPPs with a total installed capacity of 1,100 MW and an average annual output of 4,764 million kWh, includes:

- Kuylyuk -170 MW;
- Inylchek -160 MW;
- Kaindy-Inylchek -20 MW;
- Akshyirak -350 MW;
- Kokshaalskaya -250 MW;
- Kuyukapskaya -250 MW.

#### Key project facts:

#### Project cost: 2.5-3 billion USD

**Location:** the Kyrgyz Republic, Issyk-Kul region, Aksui region.

The Sary-Jaz river originates from the Semenov glacier and flows into the east of the Issyk-Kul lake in the direction from north to south. The climate zone is harsh, sharply continental with cold winters and short summers in the Sary-Jaz. The average temperature of the coldest month of the year - January is 19-20 °C of frost, the warmest - July is 10 °C of heat.

#### Objective of the project

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project:

The amount of energy generated over the average long-term period will estimate 4764 million kWh with an average annual output.

## The impact of the project on the environment

The project has no negative impact on the environment.



## CONSTRUCTION OF CHATKAL HPP CASCADE

#### **Brief information:**

Project financing for the construction of 2 HPPs with a total installed capacity of 1,800 MW and average annual output of 2,650 million kWh, includes: Barkrauska - 700 MW; Nizhnechatkalskaya - 1100 MW.

#### Key project facts:

#### Location:

Kyrgyz Republic, Jalal-Abad region, Chatkal district, Chatkal river near the river Besh-Aral

#### Project cost: 1.37 billion USD

#### Objectives of the project:

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project

The volume of energy generated will estimate 2650 million kWh with an average annual output.

## Financial and economic forecast of the project:

Forecast data will be determined after clarification on conditions of the project financing.

The project has no negative impact on the environment.

Production and sale of electricity in the domestic and foreign markets.



# CONSTRUCTION OF ALA-BUKA HPP CASCADE

#### **Brief information:**

Financing project for the construction of 4 HPPs with a total installed capacity of 414 MW and average annual output of 1,711 million kWh, includes:

Arpanskaya -1- 136 MW Arpanskaya -2- 58 MW Makmalskaya - 112 MW Sazskaya - 108 MW

#### Key project facts:

Location: the Kyrgyz Republic, Naryn region, Ak-Talin district, Ala-Buga river.

Total cost of the project 3.03 billion USD

#### **Objectives of the project**

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project

The amount of energy generated over the average long-term period will estimate 1.711 million kWh with an average annual output.

The construction project has no negative impact on the environment

## Financial and economic forecast of the project:

Forecast data will be determined after clarification on conditions of the project financing.

The project has no negative impact on the environment

Production and sale of electricity in the domestic and foreign markets.



## **CONSTRUCTION OF AT - BASHY HPP CASCADE**

#### **Brief information:**

Financing project for the construction of 5 HPPs with a total installed capacity of 132.2 MW and average annual output of 753 million kWh, includes:

- Taldysu 1 20.0 MW;
- Taldysu 2 26.7 MW;
- Oytersken 1 28.5 MW;
- Oytersken 2 17.0 MW;
- Akjar 40.0 MW.

#### Key project facts:

**Location**: the Kyrgyz Republic Naryn region, At-Bashy district.

Project cost 1.61 billion USD

#### Objectives of the project

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project

Volume of energy generated by the two units for an average long-term period will amount to an average annual output of 753 million kWh.

## Financial and economic forecast of the project:

Forecast data will be determined after clarification on conditions of the project financing.

The project has no negative impact on the environment



## CONSTRUCTION OF KULANAK HPP CASCADE

#### **Brief information:**

Investment of the project provides for the construction of 5 HPPs with a total installed capacity of 439 MW and an average annual output of 2667.8 million kWh At-Bashinskaya - 135 MW; Uchkunskaya - 88 MW; Aktalinskaya - 38 MW; Dzhilanaryk-1 - 80 MW; Dzhilanaryk-2 - 98 MW.

#### Key project facts:

Project cost: 2.78 billion USD Location: the Kyrgyz Republic Naryn region, At-Bashinsky between the flow of At-Bashi and Ala-Buga rivers

#### Objectives of the project

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Final results of the project

Average annual production of electricity is 2667.8 million kWh

#### Financial and economic forecast of the project:

Forecast data will be determined after clarification on conditions of the project financing.

#### The impact of the project on the environment The project has no negative impact on the

environment



## **CONSTRUCTION OF PAPAN HPP**

#### **Brief information:**

The project provides the construction of a Small HPP with a capacity of 20 MW, a unit capacity of 10 MW

#### Key project facts:

According to pre-feasibility study project developed by "Mercados -Energy Markets International (Spain)" company, the **project cost** is 28 million US dollars

Location: Kyrgyz Republic, Osh region, Kara-Suu District, Papan reservoir on Ak-Buura river

#### Project goals:

The project is aimed on increasing the energy capacity and generating electricity to cover growing demand in the energy system.

#### Power generation

Volume of energy generated by the two units for an average long-term period will amount to an average annual output of 106 million kWh.

Term construction: 3 years

#### **Reservoir capacity**

260 million m3

Maximum volume of water flow 345 m3 / s

Minimum volume of water consumption 2.4 m3 / s

Estimated water consumption at hydroelectric power station 45 m3 / s

#### Heads:

Maximum 80 m Minimum 40 m Estimated 77m

The project has no negative impact on the environment



## **CONSTRUCTION OF KIROV SHPP**

#### **Brief information:**

The project aimed at the construction of a Small HPP with a capacity of 21 MW, a unit capacity of 10 MW

Initiator: Cabinet of Ministers of the Kyrgyz Republic

#### Key facts

Location: Talas region Project cost: 23 million USD Payback of the project: 10 years

Key indicators		
Production	91.4 million kWh	
Hydro Generators	10 MW	
Payback period, years	10	
Installed capacity	21 MW	

Assistance in the implementation of electricity export within the framework of the CASA-1000 project (according to the rules of open access to third parties)



#### Objectives of the project:

Implementation of small Kirov SHPP will increase capacity and power generation to cover growing demand of electricity consumption.

The volume of energy generated by the two units over an average long-term period will be 91 million kWh.

**Requested Schedule (Timeline)** The construction period will be nearby 3 years.

Reservoir capacity 50 million m3

Maximum water flow rate 225 m3 / s

Minimum water flow rate 8.3 m3 / s

Estimated water consumption at hydroelectric power station 59 m3 / s

#### Heads:

Maximum 66 m Minimum 13 m Estimated 41 m

The construction project has no negative impact on the environment

## **MODERNIZATION OF THE LEBEDINOV HPP**

#### **Brief information:**

Lebedinov HPP is situated in the Chui region, Alamudun district, Lebedinovka

#### village.

Lebedinov HPP was constructed in 1943. Hydroelectric unit No. 2 was under conservation due to a shaft failure from January 2009 to August 2014 (according to operational data, a sharp increase in the temperature of bearings and increased vibration were noted; upon inspection a breakdown of the intermediate shaft was detected). At the moment, hydroelectric unit No. 2 is used with a capacity of no more than 2 MW, with an installed capacity of 3.6 MW. It is planned to increase the capacity to 4.5 MW after modernization.

Initiator: "Chakan HPP "JSC

#### Key facts of the project:

Currently, there is an indicative proposal from the "MAVEL" company, which has carried out a preliminary survey of the station. The pre-feasibility study was prepared by the Korean engineering company "YOOSHIN".

#### Project cost: 2.5 million USD

Average annual additional revenue from reconstruction of LHPP is 29 million som.

#### Available assets

Depending on the conditions of investor, the company has the opportunity of cofinance of the primary investment up to 15%.

#### Markets sales of products (marketing plan)

JSC "Severelectro", Internal consumers.

Indicators investment efficiency		
Net present value (NPV), thousand dollars.	950	
Internal rate of return (IRR),%	8.6%	
Index profitability (PI), units	1.39	
Discounted payback period (DPB), year.	8.06	
Average profitability investments,%	55.2	
Term payback, years	10	

## **CONSTRUCTION OF ORTO-TOKOY HPP**

#### Brief information:

The project provides for the construction of a 20 MW Malaya HPP, 2 units of 10 MW each.

Project cost: 23 million USD

#### Location:

The Kyrgyz Republic, Issyk-Kul area, Orto-Tokoiskiy reservoir on the Chu river.

#### Project goals:

The implementation will increase capacity and power generation to cover the growing demand in energy sector.

#### Power generation:

The amount of energy generated by the two units over an average long-term period will be with an average annual output of 100 million kWh.

Term construction: 3 years.

The project has no negative impact on the environment

#### Reservoir capacity

470 million m3

Maximum volume of water flow 400 m3 / s

Minimum volume of water consumption 27 m3 / s

Estimated water consumption at hydroelectric power station 60 m3 / s

#### Heads:

Maximum 45 m Minimum 22.5 m Estimated 38 m



## CONSTRUCTION OF THE CASCADE OF SMALL HPPs ON THE ISSYK-ATA RIVER

#### Brief information:

SHPPs are located along the Issyk-Ata River on the territory of Issyk-Ata district of the Chui region of the Kyrgyz Republic. The sites of the SHPP are provided with an asphalt road, close to the territorial substation of 110 kV, the area for 9 SHPP is 5.0 hectares. Acts of land acquisition and all necessary building permits have been received.

Initiator:	"Ceramics"	LLC	

**Key facts project:** The total installed capacity of the SHPP cascade will be 25.6 MW, and the annual electricity generation for sale is 150.5 million kWh.

#### Project cost: USD 29.5 million

Marketssalesofproducts(marketingplan):Domesticproduction and salesmarket

Available assets: Land - 5 hectares

Indicators of investment effi	ciency
Payback period, years.	12
Net present value (NPV), million euros	46.8
Internal rate of return (IRR),%	22.7%
Discounted payback period (DPB), year.	8.5



## CONSTRUCTION OF TWO SMALL HPPs on ALAMEDIN river

#### **Brief information:**

Alamedin river flows in Alamedin district of the Chui region. It originates on the north slope Kyrgyz ridge at altitudes of 4000 m above sea level. River feeding is glacial and snowy. Water inflow goes from river Alamedin into pressure pipelines of small hydroenergy power plants "Alamedin" that is carried out at an height of 1420 m and 1280 m.

The small HPPs, in terms of level, are located 120 m lower (for each station). Thus, a head of 120 m is created for the station, which provides an electrical power of 2400 kW. The water consumption for the station operation is 2.0 m3 / sec.

Initiator: the Ministry of Energy and Industry of the Kyrgyz Republic

#### Key facts :

Construction takes place in two stages:

- Stage 1 construction of hydraulic structures, hydroenergy power plant buildings and installation of the first two units with a capacity of 1200 kW at each station with an average annual output of 20 million kWh of electricity; the cost of these works will amount to 2.6 million USD;
- Stage 2 installation of the next two units with a capacity of 1200 kW each with an average annual output of 20 million kWh of electricity; the cost of the second stage will amount to 1.6 million USD (the cost includes only the cost of equipment and construction installation work of the units).

## Markets sales of products (marketing plan)

Production and sale to the domestic market and the local population.

#### Implementation period:

The payback period for two HPPs with a capacity of 4800 kW and an average annual output of 40 million kWh of electricity (calculation of electricity generation: the duration of the station's operation per year is 24 hours x340 days = 8160 hours; electricity generation - 4800 kWx 8,160 hours = 40,000,000 kWh) with an average selling price of electricity of 2.2 US cents per 1 kWh (taking into account power consumption charges) 6 years:

1) electricity sales per year - 40,000,000 kWh x \$ 0.022 / kWh = 880,000 USD for 1 year;

2) electricity sales in 6 years - \$ 880,000 x 6 years = 5,280,000 USD.

The project cost: 4.2 million USD

## CONSTRUCTION OF SMALL HPP SHAMSI

#### Description of the project

The project plans to build a small hydroelectric power station Shamsi with a power of **10 mW**.

Due to the fact that this hydroelectric power station is located on the domestic wastewater, the volume of energy produced at the HPP Shamsi depends on the change in water discharge in the river during the year.

No.	Name	Amount, thousand USD
1.1	Water-lifting dam and water intake structure	1,346
1.2	Pressure pipeline	1,896
1.3	Lower part of the power plant structure	620
1.4	Upper part of the power plant structure	178
1.5	Other jobs	1926
2.	Electromechanical works	
2.1	Hydraulic works	5,750
2.2	Electromechanical works	6,500
2.3	Grid connection	200
2.4	Other expenses	1743
TOT	AL.	20132

## Strategy of hydroelectric power plant construction

Objectives of the Small HPP Development Program in the Kyrgyz Republic are aimed at the development of small hydroenergy power plants to achieve a better balance between the production and consumption of electricity, as well as reduce electricity losses.

#### Benefits of small hydropower plants

The construction of large hydropower plants requires huge one-time costs and investments. In addition, this direction is limited by the lack of powerful rivers with high water discharges, as well as environmental considerations.

The optimal for the Kyrgyz Republic is the widespread use of hydropower small rivers, as well as existing reservoirs and irrigation dams for generating electricity at a small hydroelectric power station power.

#### Project cost: 20 million USD.

## CONSTRUCTION OF THE KARA-KUL SMALL HPP

#### **Brief information:**

The project involves the construction of a small hydroelectric power station with a capacity of 18 MW at Karasuu river, in the western part of the city Karakul, Jalalabad area, in the area former concrete factory. This project is one of the first constructions since independence of the Kyrgyz Republic.

Initiator: Chakan HPP JSC

#### Key facts:

As a result, the estimated annual electricity generation is 110 million kWh per year, while the operation of one unit will provide conditionally 78 million kWh in a year, the operation of the second unit is additionally 32 million kWh in a year. Technical design has been accomplished by Hydroproject JSC, The Republic of Uzbekistan)

#### Project cost: 25 million USD

Own contribution USD 500 000. Investment required: USD 24 500 000.

#### Available assets:

- There is a State act on the right of private ownership of a land plot 8.5 ha;
- Design documentation for construction of Hydroelectric power station has been completed;
- Power lines, preparation of construction works has been completed.

#### Markets sales (marketing plan):

The main consumers are companies and economic entities of the Chui region of the Kyrgyz Republic and the southern regions of Kazakhstan. The construction of small hydroelectric power plants will make it possible to generate energy efficiency in the general energy system of the country, which will cover the demand in the domestic and foreign markets.

Project implementation period: 2 - 2.5 years.

Payback period: up to 8 years.



CONSTRUCTION OF THE INDUSTRIAL TRADE AND LOGISTIC COMPLEX

#### **Brief information:**

Creation of the industrial, trade and logistics complex (ITLC) on the territory of a free economic zone in Naryn region.

#### Initiator: FEZ "Naryn"

#### Key facts

- Location: Naryn region
- Project cost: 276 million USD Payback period: 15 years 6 months

Naryn region has a very advantageous geographical location, highway Bishkek-Naryn-Torugart -Kashgar passes by and connects

highways of TRACECA's countries and highways leading through China, India, Pakistan (Karakorum highway) to the seaports of Pakistan, India, Iran.

Indicators of investment efficiency	
Internal rate of return (IRR),%	8 %
Index profitability (PI), %	42
Average profitability investments,%	29.8
Payback period, years	15.6

#### Logistic Zone

- · Zone of custom control;
- · Terminal area;
- Warehouse area;
- Administrative zone.

#### Shopping area

- · Wholesale and retail trade center;
- · Public catering points;
- · Sanitary quarantine station;
- Automated warehouses for goods storing;
- Certification Authorities;
- Transport and brokerage firms;
- Insurance companies;
- · Travel firms.

#### Priority activities of the industrial zone



CONSTRUCTION OF A TRADE AND LOGISTICS CENTER IN THE OSH REGION

**Brief information:** the advantage of this project is the presence of a transformed land plot with an area of 10 hectares with a convenient location.

**Initiator:** Permanent office of the Cabinet of Ministers of the Kyrgyz Republic in Osh region.

#### Key project facts:

- Transformed land plot of 10 hectares, asphalt road.
- The following crops are grown from the main types of crop production:
- grain (excluding legumes, rice and buckwheat) 297.2 thousand tons;
- potatoes 206.2 thousand tons;
- corn (not grain) 182.3 thousand tons;
- vegetables 175.9 thousand tons;
- wheat 78.7 thousand tons;
- melons and gourds 54.7 thousand tons;
- fruit and berry crops 54.3 thousand tons;
- barley 36.2 thousand tons;
- raw cotton 34.9 thousand tons.

#### Project cost: 20-30 million USD

#### Sales markets (marketing plan)

Kazakhstan imports vegetables and fruits on \$ 76.6 billion USD annually. The main exporter of vegetables and fruits to Kazakhstan is Uzbekistan, which exported \$ 262 million USD vegetables and fruits. The main exporter of vegetables to Russia is China, which supplied US \$ 410 million USD. At the same time, Turkey exported fruits to Russia in the amount of 814 million USD.

#### **State Preferences:**

#### Tax preferences:

- exemption from income tax;
- exemption from VAT on deliveries;
- exemption from sales tax

#### Legal terms:

- application of the national regime of economic activity, equal investment rights for local and foreign investors; non-interference in the economic activity of investors;
- protection from expropriation.



#### **Brief information**

It is planned that the logistics center will be harvesting, storing and selling fresh apples and prunes, as well as processing - drying the second grade of products for compote mixture.

#### Key facts

- Location: Talas region, Kara-Buurinsky district
- $\odot$  Production capacity: 440 tn/year
- Project cost: 817 703 USD

#### Profitability of the project



Indicators investment efficiency		
Project cost, Doll	817 703	
Own contribution, Doll	586 164	
Payback period, years	4.69	

The company has it's own production, warehouse and administrative premises to implement the project. (1000 + 150 sq.m) and adjacent land (2.5 ha) There is also a land plot that is allocated for agricultural purposes 1.28 ha +7.0 ha

#### The territory has:

- ✓ Unfinished office building (there is a need to finalize it);
- ✓ Availability of all communications and sewerage;
- ✓ Adjacent territory **2.5 hectares**;
- ✓ Warehouse, which is also required to be covered;
- $\checkmark$  A transformer;
- ✓ Artesian well.

Almost 90% of the products of the logistics center are export-oriented and only 10% will be sold on the local market.



CONSTRUCTION OF A LOGISTIC CENTER -VEGETABLE STORAGE

#### **Brief information:**

Construction and organization of a logistic vegetable complex for long-term storage of vegetables and further sale

#### Key facts

Location: Talas region, Manas district
 Production capacity: 10,000 tons of

- one-time storage
- Project cost: USD 3.3 million

Near Manas of Talas region, all conditions have been created for the successful cultivation of vegetables:

- climatic (weather),
- natural (soil),
- availability of water resources,
- demographic (personnel).

In particular, the village of Kyzyl-Zhyldyz of the above mentioned region has a huge potential for growing and selling vegetables both for the whole of Kyrgyzstan and for export to foreign markets such as Kazakhstan and Russia. However, the lack of specialized vegetable stores do not allow to realize this potential.

Indicators of investment efficiency		
Net present value (NPV), USD	963 541 941	
Internal norm profitability (IRR),%	114.0	
Index profitability (PI), units	1.90	
Discounted payback period (DPB), month	20	
Modified IRR (MIRR)	43.4	
Discount rate, %	10	

This logistic center is supposed to be built on the site **land with a total area of 3.5 hectares**, which is located in the village of Kyzyl-Jyldyz Manas district Talas areas.



#### Vegetable storage technology

A container technology for storing vegetables with separate sections for each type of vegetables is planned. This is a type of container storage that has all advantages: harvesting vegetables and fruits in containers with storage without overloading helps to increase the yield of standard products and reduce losses.

## PROCESSING OF BIRD LITTER INTO FODDER BIOMASS AND ORGANIC FERTILIZER (ZOOHUMUS)

#### **Brief information:**

Organization of waste-free processing biological waste of poultry farms, livestock complexes, workshops for slaughter of animals and poultry, farms, food production into organic fertilizer (zoohumus) Initiator: "Ak-Kuu" LLC

#### Key facts

Location: Chui region, Sokuluk district

- Project cost: 2,6 million USD
- Project payback: 2 years 7 months
- Operating production

The project provides for the following stages for the processing of poultry manure into organic fertilizer **zoohumus**, high-protein **biomass** for the production of fish feed and manufacturing **fish feed**.

#### INSECTARIUM

Insectarium room consists of 9 blocks, total area **1900 sq.m**. This stage is intended to keep a colony of flies to obtain larvae for further production. At the same time, 7 blocks are constantly functioning, and the remaining two blocks are in sanitary treatment and prophylaxis, for further replacement of the next blocks, byrotation.

#### Benefits of the organic fertilizers' usage

The cost of fertilizers in comparison with mineral fertilizers is rather competitive, but mineral feeding is produced annually, and the addition zoohumus produced once every three years. Thuse profitability increases during the usage of organic fertilizers.

Abbreviation the growing season of plants, which is relevant for all regions.

Magnification yield by 30-50%.

Creattion of the conditions for obtaining environmentally friendly products.

Enhancement resistance of plants to bacterial and fungal diseases.

Ennobling soil structure and increase its fertility for up to 3 years.

Recovery acidity of the soil.

Helps endure periods of forced drought and frost.

## CONSTRUCTION AND ORGANIZATION OF AN INTENSIVE FRUIT GARDEN

#### **Brief information:**

Development and implementation of innovative technologies in the field of intensive horticulture by the way of construction and organization on the territory of Osh city an orchard area for the cultivation of higher grades of apples... Agricultural sector of the country has the high export potential. The production of fruit and berry crops exceeds its consumption for about **1.6 times**, which makes it possible to export **more than 85 thousand tons** of fruits and berries annually.

Initiator: "Gifts of the South" LLC

#### Key facts

- Location: Osh region, Kara-Suisky district
- Production capacity: 675 tons / year
- Project cost: 1,6 mln. USD

#### Socio-economic effects of the project:

- Development and implementation of innovative technologies in the field of intensive gardening in the Kyrgyz Republic.
- Creation of new job positions for the functioning of the garden for 163 people, thereby increasing the employment of the local population.
- Expansion and increase of the agricultural products' export to the nearby countries and abroad.
- Creation of the first certified intensive orchard in the Kyrgyz Republic, complying with international standards of quality.
- Development of national brand of fruit products thst are recognizable far beyond the borders of the Kyrgyz Republic.

# The total area of the garden<br/>complex:187 haThe area of the apple<br/>orchard at the 1st stage of<br/>the project implementation<br/>(in terms of the requested<br/>loan):19.5 ha

#### Indicators investment efficiency

Period calculation (planning horizon), months	92
Clean income (NV), USD	2,224,779.63
Net present value (NPV), USD	664,821.88
Internal norm profitability (IRR),%	9.4%
Index profitability (PI), units	1.49
Return on sales (ROS), %	60.5
Discount rate, %	five%

As it is seen from the data, investment indicators testify to the profitability of this project. All the obtained indicators are in the range of permissible values.



#### **Brief information:**

#### Benefits of the project

It plans the processing of 10,000 tons of • Creation of 200 permanent and at least 100 beans, 2,000 tons of vegetables (tomatoes, cucumbers, bell peppers, etc.), 1,000 tons of fruits (apples, plums, cherries, strawberries, raspberries, currants, etc.) per year.

#### Key facts

- Location: Talas region, Talas district
- Production capacity: 52.4 million cans annuallv
- Project cost: 9.4 million USD

There are no factories for processing beans in Kyrgyzstan and there are no competitors in this market. The project is aimed at exporting the bulk of finished products with access to the markets of European countries, Russia, Turkey and Kazakhstan. All processes will comply with international standard ISO 22000.

- seasonal employment positions directly in production. In addition, a large number of agricultural producers will conclude contracts and will be confident in the sale of their products at a favorable price;
- Improvement of infrastructure. communications, introduction to the Internet, innovative information technologies, access to roads, landscaping of territories;
- Diagnostics and timely prevention of the health status of employees undergoing regular medical examinations;
- · Capacity building of the local population, free vocational training with obtaining specialties;
- · Development of ethics, culture, hygiene of behavior at work and in society as a whole;
- Arrangement of sport grounds to maintain physical health, the organization of cultural events for the aesthetic development of youth.

Indicators of investment efficiency		
Project cost, Doll	9 360 760	
Own contribution, Doll	1,072,007	
Payback period, years	10	



#### **1.** Brief information:

"Ak-Suu Vita" JSC is a former cornprocessing sugar plant founded in 1980. The total area occupied by the plant is 80 hectares, equipped with sugar production and corn processing facilities and all auxiliary structures. Currently, the enterprise is undergoing a procedure for reviving the enterprise.

Initiator : "Ak-Suu Vita"JSC

#### Key project facts:

- processing capacity is 900 tons per day of raw sugar;
- Capacity of warehouses for sugar production is 20,000 tons for raw sugar and 15,000 tons for white sugar with an area of 3640 sq. m.
- Corn processing plant with a capacity of 620 tons per day

#### Project cost: 12 million USD

#### Product sales markets (marketing plan)

Tajikistan, Iran, Kazakhstan are potenrial markets. Every year Kazakhstan imports over 400,000 tons of sugar, the main sugar exporter to Kazakhstan is Brazil, which exported 365,189 tons of sugar in 2013, equivalent of 77.7% of all Kazakhstan's imports. The volume of imports in Tajikistan is about 20 thousand tons in 2013. The main exporter to this country was Pakistan, which supplied 12.8 thousand tons of sugar. The main supplier of sugar to Tajikistan was Belarus - 14 thousand tons of sugar in 2012. Iran is distinguished by a rather large volume of sugar consumption, the import of which is more than 1 million tons per year. Iran imported 1,051 thousand tons of sugar, of which 762 thousand tons were supplied to the UAE, 210 thousand tons by Switzerland in 2011.

Investment indicators	
Net present value (NPV), USD	115 583 124
Internal rate of return (IRR),%	33%
Discounted payback period (DPB), months	2,2



EXPANSION OF THE PLANT FOR THE PRODUCTION OF CANNED FRUITS AND VEGETABLES AND DRIED

FRUITS

#### **Brief information:**

«Oshskiy Plodoovoshnoy Kombinat» LLC was founded in 1954 on the basis of the Osh Regional Consumer Union of the Kyrgyz SSR. The main activity of the enterprise is the complex processing of fruit and vegetable products - natural canned vegetables, tomato products, natural juices, preserves, jams, fruit compotes, dried fruits and vegetables.

Initiator: «Oshskiy Plodoovoshnoy Kombinat» LLC

#### Key project facts:

Location: Osh city

Refrigerating chambers for storing fresh vegetables and fruits for 180-200 tons.

Project cost : 1,85 million USD

Investment indica	tors
Net present value, USD	8299,4
Internal rate of return (IRR),%	22,2%
Average return on investment,%	15

#### Available assets

- Land plot is 3.5 hectares.
- Transport infrastructure (railway).
- Provided with round-the-clock energy saving and water supply.
- Share capital 5.2 million USD.
- Equipment for the production of canned fruits and vegetables.
- Workplace for the production of compote mixture.
- Honey bottling workplace.
   Product sales (marketing plan)

«Oshskiy Plodoovoshnoy Kombinat» LLC exports to Russia, Kazakhstan and Russia. Potential sales markets (export values of the Kyrgyz Republic for 2020): Russia (1192 thousand USD), Kazakhstan (739 thousand USD), Uzbekistan (254 thousand USD)

Export of canned vegetables and fruits of the Kyrgyz Republic, thousand USD



## FACTORY OF REFINED SUNFLOWER OIL

#### Brief information:

#### **Project Key Facts:**

Organization of production of refined sunflower oil with a volume of 2000 tons per month.

Kyrgyzstan produces 12 thousand tons of vegetable oil per year with a demand of 100 thousand tons. Export deliveries make up 85 percent from Russia and Kazakhstan, as a result, the volume of local production of vegetable oil is 10-12% in Kyrgyzstan.

In this regard, there is a need to open a plant for the production of sunflower oil.

Location: Kara-Balta city, Chui region

Initiator: SE «Dan»

Project cost: 4.5 million USD

Capacity: 2000 tons refined oil per month

Production base with an area of 21.89 hectares; 13 warehouses for floor storage of raw

materials with a total area of 14,770 m2, with a capacity of 3 thousand tons, each;

1 working diesel locomotive and a depot for a diesel locomotive railway scales of 150 tons and railway sidings;

Production and technological laboratory; Substation 35/10 kW provides production shops, as well as backup power via a 10 kV cable line.

There is a water intake with a reservoir capacity of 500 m3 of water, which is provided by 3 ECV-10 pumps for the needs of production and the population;

**Sales markets**: 90% of products will be sold on the local market, and 10% are exportoriented Tajikistan and Kazakhstan.

Types for sale	Sales volume	Sales price , \$/tn
Sale of refined sunflower oil (45%)	2000 tons per month	1797
Sale of oilcake and meal (45%)	2025 tons per month	450
Husk sale (10%)	450 tons per month	7

## FOOD BLACK CURSED FISH FOOD PRODUCTION

#### **Brief information:**

The cost of black caviar of the company "Kaviar" is 300 \$/kg, while the wholesale price is 1000 \$/kg. Profit is equal to 300%. The advantage over competitors is that the wholesale price in the world market starts from 1500-2500 \$/kg, i.e. 50% more expensive than the company's production .

Financial indicators for 6 years	Amount
after the project implementation	
Total amount of income from	10,3 million
sales	USD
Cost of goods sold	3,1 million USD
Gross profit	7,2 million USD
The investments raised are planned to	

be used for the following (US dollars)

Nº	Cost Items	Amount of
		expenses
1	Construction of fish pools	8.000.000
2	Technical equipment	5.150.000
3	Power, water, land	300.000
	Total	13.450.000

The uniqueness of this business is precisely in the lifetime receipt of eggs and creating the most favorable conditions for fish reproduction using innovative technologies in the management of maturation of breeding stock, fish breeding, feeding and adaptation to the river conditions, cryopreservation of reproductive products of sturgeon fish. Preferences:

- exemption from income tax;
- VAT exemption for deliveries

#### Legal conditions:

- · application of the national regime of economic activity, equal investment rights for local and foreign investors: noninterference in the economic activities of investors:
- protection against expropriation

Industry:	Food industry
Initiator:	Limited Liability
	Company
Year of	2011
foundation:	
Form of	Limited Liability
ownership:	Company
Number of	8 (full-time
employees:	employment)
Location:	Chui Region, Sokuluk
	district, Frunze
Production	4 tons per year
capacity:	

#### Markets

Russia and Kazakhstan

#### Main competitors:

**Domestic:** Akvafond Company International: Companies from Russia, Kazakhstan, Israel, Germany, France, China

#### **Investment Requirements**

Required investment: 13,450,000 USD Form of cooperation: Direct investment Contributions of the Parties: Investor: 100 %

#### Payback period: 6-7 years

Caviar production and exports have now declined 20-30 times due to the catastrophic degradation of sturgeon stocks over the past 10-15 years caused by a number of anthropogenic factors, primarily the violation of the rational sturgeon fishing regime that had been established and observed in the Soviet period. Sturgeon fishing is currently banned worldwide. Black caviar can only be sold legally from milked females raised in captivity.

## DEVELOPMENT OF THE FRUIT-VEGETABLE COMBINE

#### **Brief information:**

The main activity of the enterprise is complex processing of fruit and vegetable products. The purpose of the investment is the purchase of lines for bottling natural juices and packaging tomato paste in aseptic packaging, a steam boiler, a machine for screwing a lid, a marker, a microwave vacuum drying unit

Initiator: «Osh fruit-vegetable combine» LLC

#### Key project facts:

Products: canned cucumbers, canned tomatoes, pickled cucumbers, pickled tomatoes, spicy cabbage, pickled bell peppers, mashed tomato 15%, mashed tomato 20%, mashed tomato 25%, tomato paste 30%, tomato sauce, natural tomato juice, compote plum, apricot compote, peach compote, cherry compote, apple compote, apple jam, quince jam, cherry plum jam, cherry jam, apricot jam, plum jam, walnut jam, natural apple juice, natural grape juice, etc.

#### Project cost : 5,925 million USD

#### Available assets:

- The territory has:
- Plot of 3.5 hectares
- Transport infrastructure (railway)
- Energy saving and water supply system
- Equipment for the production of canned fruits and vegetables
  Workshop for the production of compote

mixture, for bottling honey

## Product sales markets (marketing plan):

Russia and Central Asian region



# PRODUCTION AND PROCESSING OF WOOL MERINOS

**Brief information:** Project aimed at the creation of a full cycle for the production of sheep wool in the Kyrgyz Republic, including procurement, cleaning, sorting, sale and export to foreign markets.

It is planned to bring the most economically profitable breed of merino sheep to the Kyrgyz Republic. The production and processing of wool will be carried out at the factory. The resulting products will be exported to the EAEU countries and other markets.

**Initiator:** Ministry of Investment of the Kyrgyz Republic.

#### 3. Key facts project:

The most suitable breed of sheep for obtaining wool today is the merino breed, which differs from other breeds in the high quality of combed wool. Merino wool is 2 times thinner than ordinary sheep wool.

Merino easily adapts to various conditions and terrain and, due to its calm nature of behavior, is more flexible.

Approximately 12 million merinos had been in the Kyrgyz Republic during the Soviet era, which were eventually sold out. With the successful implementation of the idea, the merino breed will be revived in the Kyrgyz Republic. Within this project, it is planned to import merino sheep from Krasnodar, Stavropol territories abd Mongolia. There are also a capacity to store wool from the regions of the Kyrgyz Republic and foothills.

#### Project cost: 3-5 million USD

**Disbursement of funds:** Investments are planned to be used for the following purposes: - Purchase of merino and creation of a farm (1

- million USD);
- Construction of a wool washing and processing plant (1.5 million USD);
- Purchase of modern equipment from Europe (500 thousand USD);
- Establishing sales to foreign markets.
- Within the framework of the project, it is possible to establish production of: semi-finished product;
- finished products (woolen fiber, thread,
- overcoat cloth, felt, etc.).

The Kyrgyz Republic produces felt products, yurts, carpets, felt footwear, felt accessories and national products. Thus, part of the goods produced can be sold on the domestic market. EXPANSION OF THE EXISTING FISHERIES OF THE TIAN-SHAN TROUT LLC

**Brief information:** The project involves the modernization and expansion of the existing fish farm for growing trout in a water area of 10 hectares in Toktogul and 5 hectares in Tash-Kumyrsky reservoirs.

The company plans:

- To establish a cage farm in the water area of Toktogul Reservoirs;
- To build groups of workshops for product processing;
- To purchase a refrigerated van;
- To prepare conditions for construction of logistic center for storing fresh frozen fish, fish products, as well as with the prospect of storing cattle meat.

Initiator: Tien Shan Trout LLC

#### Key project facts:

The Tien Shan Trout LLC is a production enterprise engaged in trout breeding from sowing fry to the launch of fish for sale. The farm is located in an ecologically clean high-mountainous region 60 kilometers from the capital of Kyrgyzstan in the village of Voznesenovka, Chui region.

4. Project cost: 3 million USD

**Product sales markets (marketing plan)** Annual demand of the Kyrgyz Republic in fish is 12.5 thousand tons. It is likely that fish production has increased to 1.5 thousand tons in 2018. It supposes, that the domestic market is not fully saturated. In addition, most of the fish produced in Kyrgyzstan goes to the markets of Kazakhstan, as well as the markets of the EAEU, China.

Indicators of investment efficiency		
Net present value (NPV), USD	\$ 6,218,459.5 3	
internal rate of return (IRR),%	% 94.74	
Index profitability (PI), units	2.07	
Discounted payback period (DPB), year.	four	
Average profitability investments,%	148.61	
Term payback, years	7 years	



The construction of an enterprise for the production of cigarettes

#### Brief information:

Construction of a cigarette manufacturing facility.

The company will provide services to local farmers to grow and market local tobacco. 90% of production is oriented to export to Russia, Kazakhstan and CIS countries, and 10% are sold on the local market.

Initiator: Ozkent LLC

#### Founded: 1997

Location: "Bishkek" FEZ

Production capacity: 3500-5000 cigarettes per minute

#### Key project facts:

- - Administrative building
- - All communications and sewerage
- - The adjacent territory of 2.5 hectares.

#### Available assets:

- There is own territory for the creation of the tobacco factory
- Experience in doing business in agriculture and producing tobacco factory
- Export supplies to the Russian Federation and CIS countries
- Creation of new jobs in Bishkek FEZ

#### Product sales markets (marketing plan)

Russia, Kazakhstan and CIS countries

Sales volume	Volume of sales	Selling price, \$/t
Cigarettes	18480,00	20 001,00

Total sales volume:	18480.00	
	10-100,00	
		20 001 00
		20 00 1,00

Project cost: 1 500 000 USD

Required amount of investment: 1 300 000 USD

## TECHNOPOLIS FOR TEXTILE AND SEWING PRODUCTION

#### **Brief information**

Implementation of the project assumes market diversification, since there will be an opportunity to introduce international standards of production (ISO 9000, etc.), receive orders from world brands, ensure transparency in the accounting for processed volumes of raw materials and concentrate production capacities that allow making large orders.

Initiator: Legprom Association

#### Key project facts:

- Input the commissioning of the Technopolis project will contribute to an increase in the volume of production of textile and clothing enterprises by more than 30% (about 29,5 million USD), about 10 thousand jobs will be created.
- 2. Association is taking measures to prepare a business plan and a draft project.

#### 3. Project cost: USD 45 million

## Markets sales of products (marketing plan):

Russia is a promising market for women's blouses. It takes 13th place in terms of imports and takes 1.7% of world imports. The growth of imports over the past five years was recorded at the level of -2%, and the increase in value over the past year was -5%. The average tariff applied by the country to the Kyrgyz Republic is 0%. The main suppliers for Russia are Bangladesh and China.



### **INNOVATIVE GOLD RECOVERY TECHNOLOGY**

#### **Brief information:**

Integration of innovative cyanide-free technologies directed to solve the problems of traditional gold extractiond.

#### Initiator: AKKORDA LLC

#### Key project facts:

- Innovative solutions of ore preparation;
- Complete elimination of sodium cyanide from the technological chain;
- Miniaturization of technology through the use of nanotechnological receptions;
- Usage of nanotechnological receptions promotes nearly non-reactive technologies processing sulfide concentrate.

#### Project cost: 250 million USD

#### Benefits of the project

- 1. Saving energy by cost per unit of gold extracted.
- 2. Increasing the gold recovery rate from 40-60% to 99%.
- 3. Abbreviation the number and names of chemical reagents.
- 4. Abbreviation volumes of water in comparison with the traditional method in 5 times.
- 5. Renouncement from the use of cyanides and harmful acids.
- 6. Renouncement from the autoclave extraction of gold, which implies the formation of harmful sulfurous and arsenous gases, for the disposal of which additional equipment and energy costs are required. In addition, the binding of arsenic and sulfur dramatically reduces the risk of environmental pollution.

#### Stages of project financing:

R&D and design work	5 million USD
The current model of the technological line for one ton of ore	10 million USD
Testing on a live model	5 million USD
Industrial processing lines	200 million USD
Implementation and testing	30 million USD

#### Indicators investment efficiency

Period calculation (planning horizon), years	5
Net value (NV), USD	294 502 148
Net present value (NPV), USD	194 718 729
Internal rate of return (IRR),%	155.7
Index profitability (PI), units	2.58
Discounted payback period in general (years)	1.3
Discount rate, %	11

CONSTRUCTION OF A PLANT FOR THE PRODUCTION OF HEATING BOILERS

#### **Brief information:**

Construction of a modern robotic plant for the production of heating equipment. The essence of the invention is the thermal decomposition of fuel in the chamber of a special reactor at an elevated temperature of 1100-1400 C, which forms intermediate compounds and significantly changes the reaction mechanism in comparison with the ignition conditions of the traditional combustion method.

#### **Energy effect:**

30% savings on coal fuel and 15% savings on gas.

#### **Environmental effect:**

Reducing harmful emissions into the atmosphere to the level of world standards according to EURO-6.

#### Initiator: "AKKORDA" LLC

#### Key project facts:

- 1. The initiator has a Eurasian patent for equipment
- 2. Production capacity of 50 thousand boilers per year

#### Project cost: 100 million USD

#### Enterprise advantages:

- Own innovative developments
- Robotic equipment production
- Short terms of production of manufactured products
- Highly qualified team
- Training of specialists on the basis of the enterprise
- Modern system of a quality control

#### Indicators of investment efficiency

Period calculation (planning horizon), years	10
Net profit, USD	30,000,000
Construction period, months	24
Planned turnover, USD	50,000,000- 150,000,000
Payback period of the project, years	7

## **CONSTRUCTION OF AN INNOVATIVE GREENHOUSE**

**Brief information:** The project supposes the creation of an innovative greenhouse using a unique assembly technology, heating and growing crops with increased yields.

Initiator: AKKORDA LLC

Project cost: 120 million USD

#### Project implementation plan:

- Construction of a greenhouse complex with engineering and technological equipment;
- Acquisition and delivery of major and auxiliary materials for full functioning;
- Dislocation, recruitment and team training;
- Start of production.

#### Benefits the project:

- Use of innovative technology
- Ensuring high quality products
- Comparatively low price level
- Implementation of programs to stimulate demand

Indicators of investment efficiency				
Net present value (NPV), thousand dollars.	125 000			
Internal norm profitability (IRR),%	22			
Discounted payback of the project, years	5.9			
Profitability assets, %	22			
Term payback, years	10			

Net discounted income, thousand USD 264,000



## **CONSTRUCTION OF ELECTRIC BUS PLANT**

#### Brief information:

Design and the production of environmentally friendly electric vehicles.

Initiator: AKKORDA LLC

Project cost: 10 million USD

#### Assigned tasks:

- Design and manufacture of electric motors, research institute stage.
- Manufacturing accumulation nodes and accumulators.
- Scientific research for the projects of assemblies and mechanisms of electric vehicles.
- Manufacturing of a working sample and setting them up for serial production.

#### **Development advantages:**

- Main feature of the bus is the system of ultra-fast recharging of the battery pack (lithium titanate battery Toshiba Super Charge Ion Battery (SCiB)).
- The efficiency of electric motors reaches up to 99%.
- Better control of the differential and its locking without unnecessary mechanisms.
- Return of the generated electrical energy during braking for recuperation into the battery.
- Battery lithium titanate of a new generation for 40,000 charging cycles, which gives at least 30 years of exploitation.
- On board computer of our own design together with software.
- Most complex and critical part of the electric bus. The computer consists of 3 main ARM A 20 processors for complex tasks, which are fully adapted with their own know-how.



## CONSTRUCTION OF A PLANT FOR LIMESTONE EXTRACTION AND PRODUCTION OF CEMENT

#### **Brief information:**

General Central Section stock Ozgorushsky deposits - 14261.9 thousand tons of limestone categories (B + C1), with an area of 317320 m2 and a volume of 5727.6 thousand m3 followed by cement production.

It is planned to extract 300,000 tons of limestone annually for the production of building lime and as a carbonate component in the production of Portland cement.

According to research results, limestones have a very high titer, within 95% (CaO+ MgO). Rocks has a high quality carbonate raw materials for cement production. In accordance with the technical requirements, the chemical composition of limestone belongs to the class "A".

#### Initiator: "Datka Cement" LLC

**Main consumers:** Talas region of the Kyrgyz Republic, neighbouring regions of Kazakhstan, Uzbekistan, Tajikistan

#### Markets sales:

- Kyrgyzstan 60%
- Kazakhstan 30%
- Uzbekistan 10%

#### Market Review:

The main players in the market (including foreign manufacturers):

- Kant cement factory (Kyrgyz Republic)
- Taraz cement plant (Kazakhstan)

#### Project cost: 5 million USD

Estimated basic investment costs (in USD)

Technique and equipment.	10.0 million
Raw materials and supplies	3.0 million
Wage	2.5 million
Total:	15.5 million





#### **Brief information:**

The project provides for the reconstruction of the Issyk-Kul hotel into an international-class hotel that will be able to provide support and service for visits conducted at the highest state and business levels, as well as for all foreign and local tourists. To achieve this goal, it is planned to implement the following main components of the project, including:

Reconstruction of the existing hotel, in accordance with international standards and requirements stipulated in the business plan;
 Construction of a new 16-storey octagonal

hotel with 8 President Apartments and a highclass restaurant;

• Construction of a unique Congress Hall with 1000 seats, which will be a unique facility in the city;





#### exemption from income tax;

- VAT exemption for deliveries;
- exemption from sales tax;

#### **General information**

Industry: Tourism State partner SE "Issyk-Kul Hotel and Shopping Complex under the Office of the President of the Kyrgyz Republic"

Location: Bishkek city

Power: Hotel - 434 places Congress hall - 1000 seats Rooms - 188, including 4 suites, 20 junior suites, 34 single and 130 double rooms.

Conferences and business meetings: 9 conference rooms

Territory: 3.5 hectares

Year of construction: 1984

Project cost: preliminary 42 million USD

Form of cooperation: PPP

Term of the agreement: about 20 years The total area of the hotel is 12.9 thousand sq. M.

Site area - 36.4 thousand sq. m



Legal conditions

• application of the national regime to economic activity, equal investment rights for local and foreign investors; noninterference in the economic activities of investors;

· protection against expropriation.

## **RESORT "ISSYK-KUL AURORA"**

#### **Brief information**

The reconstruction and modernization program contains several stages: reconstruction and modernization of the main building, medical block, kitchen, dining room, restaurants with replacement of equipment, furniture, interior change, construction of a sports complex with a stadium and running tracks, re-equipment of the beach area with installation aqua-park, reconstruction of access roads, roads, sidewalks, modernization of the irrigation system, landscape design of the park, construction of one, two and three-storey cottages of seasonal and year-round operation

#### Objectives of the project

The same of the sa

Implementation will increase the level of development of the tourism industry, social, cultural and economic factors and the external attractiveness of the country for foreign tourists and development of external tourism.



#### Location

Issyk-Kul region, Bulan-Sogott village

Project cost: 60 million USD



## ALAYKU: DEVELOPMENT OF A TOURIST CLUSTER

#### **Brief information:**

Eco-farm Alayku needs to expand its activities by creating new business units such as the organization of a trout farm, a swimming pool with a sauna.

10-11

Initiator: "Alayku"LLC

#### Key facts

Location: Osh region

#### Project cost: 7,33 million USD

- Eco-farm "Alaiku" is located on 2 hectars and at an altitude of 2100 meters above the sea level.
- There is a hotel with available rooms for up to 20 tourists, connected to all sources of housing and communal services infrastructure: sewerage, hot water, electricity and heating.
- There are 4 yurts with all the amenities for collaboration (coworking) and living.
- The Alayku eco-farm has a mini-dairy shop that produces ecologically pure national products such as kurut, kymyz and assorted cheeses.

Initiator plans to purchase 4 SUVs, **2 minivans** (Mercedes Benz) and **2 helicopters** Airbus H125

#### Marketing Activity Concept:

It is planned to provide tourism services in the form of travel vouchers and packages, which implies the possibility of serving foreign tourists "from airport to airport.". In other words, the package includes meeting tourists at the airport, accommodation in a boutique hotel in Osh city on the territory of an existing enterprise / office, from where flights will be made to eco-farms "Alayku". Also, the package will include hotel services, restaurant services, swimming pool, spa, sport fishing and accompanying the guest to the airport for departure.



## RECONSTRUCTION OF KEREMET RESORT IN ISSYK-KUL

#### **Brief information**

Boarding house "Keremet" is located on north coast Issyk-Kul lake in the village. Bosteri in 9 km away distance from g. Cholpon-Ata. Territory for construction is situated on the territory of the boarding house "Keremet".

#### Initiator:

Baytur LLC. Corporation "Baytur» owes the following businesses:

- Production of building materials -"Baytur Building";
- Sale of exclusive furniture accessories from Europe - EMF "Europe";
- Production of a high-class cabinet furniture by "Baytur-Furniture";
- Kumis hospital "Baytur";
- Ski base "Too-Ashuu";
- Bath and recreation complex "Baytur"-SPA complex, recreation and health care center;
- "Aphrodite" an elite ladies' SPA complex and beauty salon;
- "Apollo "- elite men's SPA complex.

#### Prerequisites for project implementation

NOR LOOP

The market potential of the project is caused due to the fact that, despite the functioning of dozens of boarding houses on Issyk Kul, only 6-7 out of them work all year round, offering services for wellness procedures. For the state with a population of 6.2 million people, such a number of wellness hospitals in Issyk-Kul is insufficient.

#### Work performed

Since 2015, on a land plot with an area of 6.6 hectares (the land plot has a beach zone) the construction of a new boarding house-sanatorium has begun. Currently, the construction of cottages and boarding house infrastructure has been completed. For the full implementation of the project, it needs completion of construction 4-storey hotel, holding finishing works, connection of infrastructure communications.

#### Project cost: 2 million USD



#### **Brief information:**

The hotel is located in the city center and provides accommodation services for foreign guests and guests from Kyrgyzstan. Services of a conference room for 40 people, a cafe on the 1st floor.

#### The territory has:

1. Building with a total area of 2148.1 sq.m. of them: Basement - 455.1 sq.m.

1st floor - 589.1 sq.m. 6th floor - 553.5 sq.m. 7th floor - 550.4 sq.m. 2. All communications and sewerage systems are centralized 3. Adjacent territory 4. Car parking

**Project cost:** 50 mln soms (equivalent to 588 235 USD dollars)

Founded: 1989 Number of employees: 19 full-time employees. Location: Bishkek, st. Toktogul, 125 Services: 10,585 clients can be grounded per year at 100% occupancy. Initiator: Government

#### Tax preferences:

- exemption from income tax;
- · VAT exemption for supplies;
- exemption from sales tax.

#### Legal conditions:

• application of the national regime of economic activity, equal investment rights for local and foreign investors; non-interference in the economic activity of investors;

#### • protection against expropriation.

#### **Project Key Facts:**

List of required investments:

- Overhaul of sewer pipes 58823 USD dollars,
- Replacement of 2 elevators 94 117 USD dollars,
- Renovation of the facade 117 647 USD dollars,
- Room renovation (replacement of doors, bathrooms) 117 647 USD dollars,
- Purchase of air conditioners in all rooms 8235 USD dollars,
- Replacement of furniture 17 647 USD dollars,
- Hall renovation 23 529 USD dollars,
- Purchase of equipment in a cafe 117 647 USD dollars,
- Improvement of the territory (construction of a laundress, parking lot) – 138 823 USD dollars.



## CONSTRUCTION OF A BRIDGE THROUGH THE TOKTOGUL RESERVOIR

#### Brief information:

This project was initiated due to the presence of a large traffic flow of vehicles bypassing the Toktogul reservoir.

The payback of the project is ensured by the collection of a toll on the bridge by motor transport. Drivers agree to pay an amount equal to the cost of fuel consumed per 80 km of travel across the bridge. It also provides the construction of 2 roadside service zones and the installation of 2 toll collection points. Implementation of the project "Construction of a bridge over the Toktogul reservoir" will reduce the length of the Bishkek-Osh road on 75-80 km. The area of the bridge construction should become a major tourist center, a place of entertainment, recreation and study of the sights of Kyrgyzstan.

Project cost: 200 million USD

Initiator: "Prom-Trans-Oil" LLC

#### **Project Key Facts:**

A comprehensive project for the development of the territory adjacent to the Toktogul reservoir will provide an opportunity for the full-scale development of tourism and resort treatment, including: • Water (rafting, yachting, sea kayaking, etc.) • Aviation (hang gliding, paragliding, hot air

ballooning, etc.)

• Active (cycling, mountaineering, equestrian tourism, etc.)

• Medical and recreational (herbal medicine, mud therapy, etc.)

Business (international summits, forums, conferences, etc.)
Cultural and educational (acquaintance with culture and customs of Kyrgyzstan, gastronomic tourism, etc.)

#### Markets

At the moment, the Bishkek-Osh road is the only alternative for land transport.



#### Description of the project

The project provides for the construction of a road to bypass the city of Uzgen with a length of 5.3 to 13 km (depending on the proposed options) of the 3rd category (2 traffic lanes with a carriageway width of 7 m). This road will be an alternative to the base of the Bishkek-Osh road, which passes through the center of Uzgen (marked with a black line on the map). The project specification includes construction, operation, maintenance, collection of money for the use of the road. In accordance with the proposals prepared by the Kyrgyzdorproekt design institute, there are 4 preliminary options for the construction of a bypass road.



The regional transport corridor Bishkek-Osh with an average daily traffic of about 11.5 thousand units passes along the densely populated central street of Uzgen. The passage of the main road arteries of the country through the central street of Uzgen, against the background of the active social and economic life of the city, creates obstacles to the throughput of this section, increasing the level of traffic hazard, leading to delays, affecting road safety and the general population, creating additional noise and sound load and environmental pollution.

#### General information:

#### Industry: Roads

**Public partner:** *Ministry of Transport and Communications of the Kyrgyz Republic* 

#### Location:

Uzgen district, Osh region

#### Length:

Option 1: 12.3 km

Option 2: 11.3 km

Option 3: 5,3 km

Option 4: 6 km

Project cost: 15.8 million USD

Form of cooperation: PPP

Form of cooperation: DBFOT

Project duration: 25 years

Road maintenance:	5 000 USD per year
Average daily traffic (ADT):	5,787 vehicles (4,641 cars and 1,146 trucks)
ADT growth rate:	5% per year

PROJECT PPP "CONSTRUCTION OF A TUNNEL ON THE TOO-ASHUU PASS"

#### Brief information:

The Bishkek-Osh highway, 672 km long, is the only communication road between the northern and southern regions of the country which makes it strategically important. This road is part of an international transport corridor. At the 129th kilometer, it passes through the tunnel named after. K. Kolbaeva. Construction of this tunnel along the Bishkek-Osh highway at an altitude of 2,200 meters above sea level, which is 1,000 meters below the existing tunnel of K. Kolbaev, will provide the Kyrgyz Republic with an alternative road tunnel with a higher capacity.

**Industry:** transport

Project cost: Approximately USD 300 million

Public partner: Ministry of Transport and Communications of the Kyrgyz Republic

Location: Zhayil district, Chui region

Agreement term: 30 years

Payback period: 15 years

Markets: Kyrgyzstan and foreign countries

Preliminary financial indicators		Information about the planned tunnel	
NPV	9 299 106	Height:	2 200 m. Above sea level
IRR	11.05%	Length:	11 km

#### **Project Key Facts:**

The most suitable model for the construction of an alternative tunnel seems to be the DBFOT model. According to this model, a private partner, on the basis of a PPP agreement, participates in the project from the design stage to financing, the construction of a tunnel and payment collection points, the creation of an appropriate IT infrastructure, an automated electronic system, operational management and further transfer to the state.

In conditions of insufficient budgetary funds, lack of sufficient experience in implementing similar projects, lack of expertise and a team, the choice of the DBFOT PPP model seems to be the optimal solution.

# PROJECT PPP "ADMINISTRATIVE CITY"

#### Description of the project

This project is implied the construction of an administrative town away from the central part of the city by a private partner, in order to unload the traffic flow, thereby improving the situation on the road, and in return transferring existing state buildings for long-term use. The administrative town will have all the appropriate infrastructure for the optimal work of civil servants.

#### **General Information**

Industry:

Government buildings

Public partner:

Administration of the President and the Government of the Kyrgyz Republic.

Location:

Bishkek city

Square:

230 thousand square meters

Project cost: Approximately \$ 115 million USA

Cooperation form:

PPP

Model:

DBFOT

Agreement term:

30 years

11.05%

20 years

Private partner obligations:

A single complex with an area of 230 thousand sq. meters including related services and infrastructure



PRELIMINARY FINANCIAL **INDICATORS** NPV 9 299 106 IRR

Payback period: State contribution:

**Operating government buildings** (area of 111 thousand square meters)



This complex will include:

- conference hall:
- conference rooms;
- underground parking;
- catering points;
- laundry;
- printing house;
- sports ground;
- · and etc.

## CREATION OF THE SCIENTIFIC CLINICAL AND REHABILITATION HIGH-MOUNTAIN CENTER

#### Brief information:

Construction of the scientific clinical and rehabilitation high-altitude center of KSMA named after I.K.Akhunbaev

#### Project cost: 150 million USD

Initiator: KSMA named after I.K. Akhunbaev

#### **Project Key Facts:**

- 100-bed project;
- Training and specialization of medical staff;
- Scientific clinical rehabilitative alpine center is projected on Too-Ashu to improve the health of the population of the Kyrgyz Republic and foreign countries in the conditions of a highmountain hospital and the development of new scientifically grounded climaticecological methods of treating the bronchial asthma, hypoplastic and irondeficient anemia, chronic leukemia, hypertension, obesity, neurocirculatory dystonia, primary thyrotoxicosis, toxic goiter, oncological diffuse diseases, rheumatological diseases, endocrine diseases and etc.

#### Markets

Kyrgyzstan and foreign countries

#### Types of activities:

It supposes to conduct the following activities in the framework of rehabilitation center:

- Medical management (organization of medical care);
   compulsory medical activity (state activities for mobilization training, civil defense and emergency medical service (MES) in emergency situations);
- Organization of donation among people living in high mountains and having a high level erythropoietin and erythrocytes for blood transfusion to patients with anemia and athletes;
- Scientific research of exploring the influence of high mountains on the body of animals and humans - healthy and with diseases;
- Approbation and implementation of new medical technologies in high altitude conditions and etc.

#### Financial plan:

Internal rate of return (IRR) 13,48 % Debt service coverage ratio (DSCR) 1,62

