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COMPONENT 2 DEMONSTRATING THE BENEFITS OF ENERGY EFFICIENCY IMPROVEMENTS IN PUBLIC BUILDINGS OF THE HEAT SUPPLY IMPROVEMENT PROJECT

**DRAFT REPORT BASED ON RESULTS AND
IMPLEMENTATION COMPLETION**

2025.



ABBREVIATIONS AND ACRONYMS

AA	Ayil Aimak – territories of local self-government
AK	Ayil Kenesh – representative body of local self-government
AO	Ayil okmotu – executive body of local self-government.
ARIS	Community Development and Investment Agency of the Kyrgyz Republic
WB	World Bank
GJ	Gigajoules
IdI	In-depth Interview
GC	Giga calories
GBV	Gender-based violence
SCIESU	State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic (currently it was renamed into the Ministry of Energy of the Kyrgyz Republic)
JK	Jogorku Kenesh (Parliament of the Kyrgyz Republic)
CO ₂	Carbon dioxide
K	Kindergarten
MIS	Management Information System
kWh	Kilowatt-hour
KR	Kyrgyz Republic
KGS	Kyrgyz Som
BUC	Building Users Committee
PAP	Project Affected People
IDA	International Development Association
MWh	Megawatt hour
Mj	Megajoule
M&E	Monitoring and Evaluation
BFM	Beneficiary Feedback Mechanism
GRM	Grievance Redress Mechanism
MNREES KR	Ministry of Natural Resources, Ecology and Engineering Supervision of the Kyrgyz Republic
MoF KR	Ministry of Finance of the Kyrgyz Republic
MoE KR	Ministry of Energy of the Kyrgyz Republic
PS	Primary school
OJSC	Open Joint Stock Company
LSGB	Local self-government bodies
RAP	Resettlement Action Plan
GoKR	Government of the Kyrgyz Republic
ISP	Implementation Support Plan
DED	Design and estimate documentation
HSIP	Heat Supply Improvement Project
ESMP	Environmental and Social Management Plan
ESMF	Environmental and social management framework
SH	Sexual harassment
PM&E	Participatory monitoring and evaluation
CIW	Construction and installation works
SC	Secondary school
SEA	Sexual exploitation and abuse
WB SES	World Bank Social and Environmental Standards
SECO	State Secretariat for Economic Affairs (Switzerland)
GS	Gymnasium school
GMPC	General Medical Practice Center
FPC	Family Practice Center
DH	District Heating

TABLE OF CONTENT

ABBREVIATIONS AND ACRONYMS	2
TABLE OF CONTENT	3
LIST OF PICTURES	5
LIST OF TABLES	5
INTRODUCTION	7
Brief overview of the situation in the Kyrgyz Republic	7
Context and background of the Project	8
ABOUT HEAT SUPPLY IMPROVEMENT PROJECT	10
Heat Supply Improvement Project Objective	10
Project components	10
Project restructuring	10
COMPONENT 2 DEMONSTRATING THE BENEFITS OF ENERGY EFFICIENCY IMPROVEMENTS IN PUBLIC BUILDINGS	11
Issues in public buildings sector	11
Need for retrofitting and energy efficiency improvements	12
Theory of Changes (Results chain)	12
Objectives of Component 2 Demonstrating the benefits of energy efficiency improvements in public buildings	14
Main deliverables of Component 2	14
Component 2 subcomponents	15
Project financing	15
Implementation period	16
Geographical coverage of Component 2	16
BRIEF INFORMATION ON IMPLEMENTATION HISTORY WITHIN THE SUBCOMPONENTS	17
Subcomponent 2.1: EE investments in public buildings	17
Activity 1: Energy efficiency investments in selected buildings	17
Buildings selection procedure	18
Component 2 Implementation process	22
Implementation history - facilities	27
ROUND 1	28
Secondary school in village Sretenka	28
Secondary school named after A. Soltonov	30
Secondary school #82 in residential area Ala-Too	33
Secondary school named after R. Shukurbekov	36
Kindergarten #5 Altyn-Balalyk	38
General Medical Practice Center for Panfilov rayon	41
ROUND 2	44
Secondary school #15 named after A. Mukanov	44
Kindergarten Janyl-Myrza	48

Secondary school #89 named after P. Jumanazarov	50
Secondary school #1 named after T. Moidunov	53
General Medical Practice Center for Ak-Talaa rayon	56
Gymnasium school #7 named after T. Tursunbayeva	59
ROUND 3	62
Secondary school named after T. Sadykov	62
Secondary school named after T. Murzaparov	66
Primary school #85 Oktyabr-Tuusu	71
Secondary school #74 named after A. Sherkulov	73
Building of Family Practice Center #1 Branch #5 in Osh city	76
Secondary school in village Dodon	81
Secondary school in village Naiman	86
General Medical Practice Center for Aravan rayon	91
General Medical Practice Center for Alai rayon	94
Measures Taken to Improve the Energy Efficiency of the Building	98
Measures Taken to Improve the Seismicity of the Building	99
Implementation results	101
List of all facilities	101
Typology of facilities	102
Buildings certification following the retrofitting	102
Completion of defects liability period for retrofitted facilities	103
Consulting services	104
Energy audit	104
DED preparation and designer supervision	105
Engineering supervision	109
Activity 2: Capacity building on energy efficiency	110
Trainings for local firms:	110
EE information campaign:	118
Support for Implementation of the Energy Efficiency Roadmap:	126
Final conferences under the Component 2 - Demonstrating the benefits of energy efficiency improvements in public buildings of the Heat Supply Improvement Project	128
Subcomponent 2.2: Implementation support for Component 2	130
Financial implementation	130
Procurement	132
Compliance with Social and Environmental Requirements	138
Beneficiary Feedback Mechanism and Grievance Redress Mechanism (GRM)	150
Monitoring and evaluation	151
Indicators of Component 2	151
Achievement of indicators:	152

Baseline survey	163
Impact assessment	167
Information on citizens engagement	169
CONCLUSION AND FINDINGS	172
Annex 1. Project results framework	176

LIST OF PICTURES

<i>Picture 1. Theory of changes.....</i>	13
<i>Picture 2. Administrative and territorial division of the Kyrgyz Republic</i>	Ошибка! Закладка не определена.
<i>Picture 3. Applications Received for Participation by Area</i>	19
<i>Picture 4. Website of State Register</i>	Ошибка! Закладка не определена.
<i>Picture 5. Comparison of estimated and actual energy savings per year</i>	156
<i>Picture 6. ECB Methodology</i>	158
<i>Picture 7. Efficiency of the appeals system</i>	Ошибка! Закладка не определена.
<i>Picture 8. Satisfaction of beneficiaries of the 1st and 2nd Rounds within the framework of the baseline survey.....</i>	
<i>Picture 9. Satisfaction of beneficiaries of the 3rd Round within the framework of the baseline survey.....</i>	

LIST OF TABLES

<i>Table 1. Call for participation – sending letters to rayon state administrations and local self-government bodies</i>	18
<i>Table 2. Submitted applications for project participation</i>	19
<i>Table 3. Contract data for secondary school in village Sretenka</i>	27
<i>Table 4. Contract data for secondary school named after A. Soltonov</i>	29
<i>Table 5. Contract data for secondary school #82 in residential area Ala-Too</i>	32
<i>Table 6. Contract data for secondary school named after R. Shukurbekov</i>	35
<i>Table 7. Contract data for kindergarten #5 Altyn-Balalyk</i>	37
<i>Table 8. Contract data for GMPC of Panfilov rayon</i>	40
<i>Table 9. Contract data for secondary school #15 named after A. Mukanov</i>	43
<i>Table 10. Contract data for kindergarten Janyl Myrza</i>	47
<i>Table 11. Contract data for secondary school #89 named after P. Jumanazarov</i>	49
<i>Table 12. Contract data for secondary school #1 named after T. Moidunov</i>	52
<i>Table 13. Contract data for GMPC of Ak-Talaa rayon</i>	55
<i>Table 14. Contract data for gymnasium school #7 named after T. Tursunbayeva</i>	58
<i>Table 15. Contract data for secondary school named after T. Sadykov</i>	61
<i>Table 16. Contract data for secondary school named after T. Murzaparov</i>	65
<i>Table 17. Contract data for primary school #85 Oktyabr-Tuusu</i>	70
<i>Table 18. Contract data for secondary school #74 named after A. Sherkulov</i>	72
<i>Table 19. Contract data for FPC #1 Branch #5 in Osh city</i>	75
<i>Table 20. Contract data for secondary school in village Dodon</i>	80
<i>Table 21. Contract data for secondary school in village Naiman</i>	85
<i>Table 22. Contract data for GMPC of Aravan rayon</i>	90
<i>Table 23. Contract data for GMPC of Alai rayon</i>	93
<i>Table 24. Facilities of Round 1</i>	100
<i>Table 25. Facilities of Round 2</i>	100
<i>Table 26. Facilities of Round 3</i>	100
<i>Table 27. Typology of facilities</i>	101
<i>Table 28. Facilities that have not yet submitted a certificate of completion of the defects liability period</i>	102

<i>Table 29. Detailed energy and seismic audits of selected public buildings in Talas, Chui oblasts, as well as in Bishkek city (Round 1)</i>	103
<i>Table 30: Detailed energy and seismic audits of selected seven public buildings in Jalal-Abad, Naryn and Issyk-Kul oblasts (Round 2)</i>	103
<i>Table 31: Detailed energy and seismic audits of selected 9 buildings in Batken and Osh oblasts as well as in Osh city (Round 3)</i>	104
<i>Table 32: Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of six public buildings in Round 1</i>	104
<i>Table 33. Designer supervision of Round 1 subprojects</i>	105
<i>Table 34: Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of 6 public buildings in Round 2</i>	105
<i>Table 35. Designer supervision of Round 2 subprojects</i>	106
<i>Table 36. Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of 9 public buildings in Round 3</i>	106
<i>Table 37. Designer supervision of Round 3 subprojects</i>	107
<i>Table 38. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 6 buildings of the Round 1</i>	108
<i>Table 39. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 6 buildings of the Round 2</i>	108
<i>Table 40. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 9 buildings of the Round 3</i>	108
<i>Table 41. Trainings for EE capacity building for beneficiaries</i>	112
<i>Table 42. Number of training participants across the oblasts</i>	114
<i>Table 43. Gender group of trained participants (people) across the oblasts</i>	115
<i>Table 44. Filming under the Round 1</i>	118
<i>Table 45. Filming under the Round 2</i>	118
<i>Table 46. Filming under the Round 3</i>	119
<i>Table 47. List of television coverage of Round 1 events</i>	119
<i>Table 48. List of television coverage of Round 2 events</i>	120
<i>Table 49. List of television coverage of Round 3 events</i>	120
<i>Table 50. List of facilities coverage of Round 1 in mass media and online</i>	121
<i>Table 51. List of facilities coverage of Round 2 in mass media and online</i>	122
<i>Table 52. List of facilities coverage of Round 3 in mass media and online</i>	123
<i>Table 53. Information on funds disbursement (thousand USD)</i>	130
<i>Table 54. Funds disbursement by components and types of expenditures (thousand USD)</i>	130
<i>Table 55. Project status for HSIP procurement from 01.01.2020 to 31.05.2025 год</i>	133
<i>Table 56. List of social and environmental documents, prepared under the Component 2</i>	139
<i>Table 57. Held public hearings</i>	142
<i>Table 58. Temporary relocation plan to alternative buildings</i>	146
<i>Table 59. Revised target indicators under the Component 2 following the project restructuring</i>	152
<i>Table 61. Data from energy audits reports</i>	156
<i>Table 62. Total Quantitative indicators of the HSIP</i>	162
<i>Table 64. Comparative satisfaction indicators of Component 2 beneficiaries based on impact assessment and baseline survey</i>	168

INTRODUCTION

Brief overview of the situation in the Kyrgyz Republic

The Kyrgyz Republic remains one of the least developed countries in the Europe and Central Asia region, where ensuring adequate, sustainable and affordable energy supply is a key priority of state policy. According to the National Development Strategy for 2018–2040¹ and the Fuel and Energy Complex Development Strategy until 2025², the modernization of the heating system is seen as key to ensuring energy security and improving the quality of life of the population.

Despite having significant hydropower resources, the country faces an energy shortage during the winter months. More than 80% of electricity is generated by hydropower plants, and during periods of low water levels, the load on coal-fired thermal power plants, in particular the Bishkek thermal power plant, increases sharply. At the same time, about 83% of households in Kyrgyzstan use individual heating sources: mainly coal (60%), electric heaters (15%), firewood and dung brick fuel (6%), and only about 17% are connected to centralized heat supply, concentrated in Bishkek and several large cities³. This situation creates increased risks to health, the environment and economic stability, especially for vulnerable groups of the population. Given the long heating season and harsh climate (ranging from 150 to 180 days of heating per year, with the duration of the heating period depending on the geographical location of a particular settlement and climatic conditions⁴), ensuring access to reliable, efficient and environmentally sustainable heat supply becomes critically important.

The issue of reliable and sustainable heat supply in the Kyrgyz Republic has long been critical. District heat supply (DHS), which is the main source of heat in Bishkek and some other large cities, faces acute problems of infrastructure wear and tear and lack of funding for modernization. More than 70% of the republic's heating networks have been in operation for over 30 years, which significantly exceeds their standard service life⁵. The lack of major repairs over decades has led to enormous wear and tear on pipelines and critical degradation of equipment. This leads to massive accidents on main pipelines: the number of incidents is increasing every year. Annual interruptions in heat supply, heat losses and rising costs for emergency repairs have become a chronic problem for the country's heating infrastructure.

According to a report by the European Union conducted as part of the SECCA project, a pilot analysis of 33 public buildings in Kyrgyzstan was carried out in 2022. The results showed that energy consumption in these buildings ranged from 39.9 to 845.35 kWh/m² per year, with the standard value being between 100 and 250 kWh/m². This indicates the high energy intensity of the buildings and the need for investment in thermal modernization⁶.

¹ **The National Development Strategy of the Kyrgyz Republic for 2018–2040** was approved by Decree #221 of the President of the Kyrgyz Republic on October 31, 2018. This document aims to achieve sustainable economic growth and modernize infrastructure. The strategy focuses on improving energy efficiency, reducing dependence on carbon-based energy sources, and introducing modern technologies in the heat supply sector. <https://mineconom.gov.kg/storage/directs/documents/209/15421950795bec078718fff.pdf>

² **The National Energy Program of the Kyrgyz Republic for 2008–2010 and the Strategy for the Development of the Fuel and Energy Complex until 2025**, approved by Resolution of the Government of the Kyrgyz Republic #47 dated February 13, 2008. This document expired on April 6, 2022 in accordance with Resolution #166 of the Cabinet of Ministers of the Kyrgyz Republic dated March 25, 2022. The Concept for Development of the Fuel and Energy Complex of the Kyrgyz Republic until 2040 is currently under public discussion <https://cbd.minjust.gov.kg/58883/edition/2209/ru>

³ https://www.ipcrg.org/sites/ipcrg/files/content/attachments/2020-06-10/Fueling-Kyrgyzstan-s-Transition-to-Clean-Household-Heating-Solutions_0.pdf

⁴ <https://www.teploseti.kg/>

⁵ World Bank report 'Keeping Warm: Urban Heating Options in the Kyrgyz Republic' (February 2015) <https://documents1.worldbank.org/curated/en/555021468011161504/pdf/97409-WP-P133058-Box391503B-PUBLIC-Heating-Assessment-for-Kyrgyz-P133058-Final.pdf>

⁶ <https://secca.eu/kyr-eu-supports-development-of-public-buildings-pilot-inventory/>

Additionally, a review of Kyrgyzstan's energy policy conducted by the International Energy Agency (IEA) in 2022 indicates that the residential sector accounts for 63% of the country's total final energy consumption. This highlights the significant share of buildings in overall energy consumption.⁷

The high energy intensity of buildings in Kyrgyzstan is exacerbated by a lack of investment in energy efficiency retrofitting. Most buildings have outdated heating and lighting systems, as well as worn-out utilities networks, which leads to significant energy losses. As a result, buildings are the main energy consumers in the country, highlighting the need for comprehensive measures to improve energy efficiency. Against this backdrop, the implementation of comprehensive energy efficiency measures and the modernization of heating infrastructure are vital steps. Energy audits show that the implementation of even basic energy efficiency measures in public buildings can reduce energy consumption by 55–70%, or about 500 GWh/year⁸. This is equivalent to 80% of the annual production of the Uch-Kurgan HPP, the fifth largest in the country. In addition to savings, such measures will improve comfort and sanitary conditions in buildings.⁸

The issue of heat supply in the Kyrgyz Republic is not just an issue of infrastructure; it is a matter of survival in a harsh climate with limited resources. When the weather gets too cold, millions of households across the country face a choice: stay warm but pay a high price, or endure the cold in order to save money. Kyrgyzstan, a country with long winters and sub-zero temperatures for several months, faces serious heating problems in both the residential and public sectors.

Thus, the current situation in Kyrgyzstan's heat supply sector required urgent modernization and the introduction of energy-efficient solutions. This includes both the restoration of existing heating networks and the transition to more modern methods of energy consumption management. The introduction of automated metering systems, improved heat insulation of networks, and the transition to closed heating systems are key steps towards achieving sustainable and efficient heating in the country. In addition, improving energy efficiency in public buildings, coupled with the use of renewable energy sources, can form the basis for reducing dependence on fossil fuels and improving the environmental situation in the republic.

Context and background of the Project

Against the backdrop of the above-described problems and structural challenges, it has become clear that maintaining the status quo in the heat supply sector is no longer feasible. The deteriorating state of infrastructure, the increasing number of accidents, the high cost of heating for the population, and unequal access to heat require systematic and strategic intervention. Maintaining existing capacities no longer ensures an acceptable level of service or long-term sustainability.

In the context of a multi-layered crisis in the sector – from the deterioration of heating networks to the vulnerability of the population during the cold season – it became increasingly clear that a comprehensive solution was needed that could cover all key areas. First and foremost, it was necessary to **reconstruct the main pipelines and district heating systems**, especially in large cities such as Bishkek, where most of the heating networks are severely worn out and operating beyond their standard service life.

More than 80% of the electricity consumed in the country is generated by hydropower, but during the winter months, coal-fired thermal power plants (TPPs) are forced to compensate for the shortfall. Year after year, a number of regions in the country introduce restrictions on energy consumption during the winter period, which highlights the vulnerability of the existing heating system. In addition, outdated infrastructure in public buildings leads to:

⁷ <https://www.iea.org/countries/kyrgyzstan/efficiency-demand>

⁸ <https://unepccc.org/wp-content/uploads/2023/08/kyrgyz-tna-report-mitigation-english-part-2.pdf>

- significant heat loss, which increases energy costs;
- increased burden on institutional budgets, which is particularly critical during winter periods;
- the use of solid fuel in conditions of electricity shortages, which exacerbates the environmental situation in the regions.

At the same time, hundreds of thousands of households **not connected to the centralized system** required the introduction of **alternative, more efficient and environmentally friendly heating solutions**, such as modernized stoves that reduce dependence on coal and wood, cut emissions and costs without sacrificing comfort.

The situation in **public institutions** — schools, kindergartens, medical and administrative buildings — is particularly alarming. It is in these facilities, which perform key social functions, that the consequences of inefficient heat supply are felt most acutely. Students are forced to study in cold classrooms, patients are kept in overcooled wards, and employees are forced to work in conditions that do not meet sanitary and labor standards. Insufficient comfort levels, worn-out utilities systems, and high energy consumption in buildings not only hinder the sustainable development of social infrastructure but also directly affect the health, productivity, and wellbeing of the population.

The main reasons for the high energy consumption of buildings include:

- A large proportion of old buildings with inadequate heat insulation;
- Outdated heating and lighting systems;
- Long-term lack of proper maintenance;
- Extensive use of electricity for heating purposes.

In order to address existing problems in the heating sector and improve the energy efficiency of buildings, the Government of the Kyrgyz Republic, in collaboration with the International Development Association (IDA), initiated the development of the Heat Supply Improvement Project (HSIP).

As part of the project preparation, official negotiations between the Government of the Kyrgyz Republic and the International Development Association took place between **September 12 and 18, 2017**. Following the negotiations, relevant protocols were signed, confirming the agreements on project implementation.

On **October 27, 2017**, the International Development Association (IDA) approved a project envisaging the provision of a grant and a loan in equal amounts — 16.3 million XDR each (equivalent to 23 million US dollars).

In addition, the Government of Switzerland, represented by the State Secretariat for Economic Affairs (SECO), approved a grant of 4.0 million USD for implementation of Component 3 of the project, 'Demonstrating the benefits of energy efficiency improvements in public buildings.' In **November 2017**, the World Bank and SECO signed an agreement to provide a grant of 4 million USD under the ESMAP program. The SECO grant was structured in two parts: the first part, amounting to USD 1.03 million, was managed by the World Bank, and the second part, amounting to USD 2.66 million, was transferred to the implementing agency for management.

On **December 12, 2017**, Decree #564-r of the Government of the Kyrgyz Republic approved the signing of a Financial Agreement between the Kyrgyz Republic and the International Development Association on Heat Supply Improvement Project.

On **January 26 2018**, in Bishkek, a Financial Agreement was signed between the Government of the Kyrgyz Republic, represented by the Ministry of Finance, and the International Development Association.

For the purpose of implementing the project, **on July 10, 2018**, Resolution #319 of the Government of the Kyrgyz Republic approved the draft Law of the Kyrgyz Republic 'On Ratification of the Financing Agreement for Implementation of the Heat Supply Improvement Project, signed on January 26, 2018'.

On **July 26, 2018**, the draft of the aforementioned Law was submitted to the Jogorku Kenesh of the Kyrgyz Republic for consideration and approved in three readings.

On February 5, 2019, Ratification Law #24 was signed by the President of the Kyrgyz Republic.

Upon completion of all necessary domestic procedures, the Heat Supply Improvement Project officially came into force on **April 25, 2019**.

ABOUT HEAT SUPPLY IMPROVEMENT PROJECT

Heat Supply Improvement Project Objective

The objective of the Heat Supply Improvement Project (HSIP) is to improve the efficiency and quality of heat supply in selected project areas in the Kyrgyz Republic.

Project components

To achieve this objective, the project initially included three components:

- **Component 1** envisaged measures **to improve the efficiency and quality of the district heat supply system** with a budget of 31.0 million USD (loan – 23.0 million USD and grant – 8.0 million USD).
- **Component 2** envisaged measures to **test efficient and environmentally friendly heating stoves** with a budget of 5.0 million USD (grant).
- **Component 3** envisaged **demonstrating the benefits of energy efficiency improvements in public buildings** with a budget of 10.0 million USD (grant).

Project restructuring

During the ratification of the main Financial Agreement, the Jogorku Kenesh of the Kyrgyz Republic raised the issue of revising **Component 2, 'Testing of efficient and environmentally friendly heating stoves,'** with the aim of abandoning its implementation and reallocating the allocated funds to other purposes. Following the discussions, it was proposed to redirect the grant funds in the amount of USD 5.0 million to other tasks.

In this regard, on **July 16, 2019**, the Ministry of Finance of the Kyrgyz Republic sent a request to the International Development Association (IDA) asking for the restructuring (revision) of the use of grant funds in the amount of 5.0 million USD, originally allocated for Component 2, 'Testing of efficient and environmentally friendly heating stoves.'

In a letter dated December 12, 2019, the World Bank announced that on July 17, 2019, the IDA had officially cancelled grant funding in the amount of 5.0 million USD. The released funds were returned to the World Bank's country portfolio for the Kyrgyz Republic and subsequently allocated to the implementation of a regional development project in 2019.

As a result of the restructuring, the Heat Supply Improvement Project was divided into **two components**:

- **Component 1** — 'Improving the efficiency and quality of district heat supply in Bishkek';
- **Component 2** — 'Demonstrating the benefits of energy efficiency improvements in public buildings.'

Each component has separate tasks and objectives, but together they are aimed at achieving the overall project objective.

As a result of the restructuring, the total budget for Component 2, 'Demonstrating the benefits of energy efficiency improvements in public buildings,' amounted to 12.66 million USD, including a 10.0 million USD grant

from the IDA and a 2.66 million USD grant from SECO.

The Community Development and Investment Agency (ARIS) has been appointed as the responsible executor for the implementation of Component 2, ‘Demonstrating the benefits of energy efficiency improvements in public buildings,’ of the Heat Supply Improvement Project. A Subsidiary Agreement was signed between the Ministry of Finance of the Kyrgyz Republic and ARIS, and a Project Agreement was signed between the International Development Association (IDA) and ARIS.

Local government institutions and building administrations also play a key role in the management, coordination and implementation of Component 2 of the HSIP KR. Overall supervision of project implementation (including all components) was carried out by the Project Advisory Committee (PAC) chaired by the State Committee for Industry, Energy and Subsoil Use (SCIESU).

COMPONENT 2 DEMONSTRATING THE BENEFITS OF ENERGY EFFICIENCY IMPROVEMENTS IN PUBLIC BUILDINGS

Issues in public buildings sector

Currently, most public buildings in Kyrgyzstan were built 35–75 years ago and do not meet modern energy efficiency standards. Due to insufficient heat insulation, outdated utilities systems and worn-out distribution lines, there is significant heat loss and increased energy costs. Many residents of the country rely on electricity for heating in winter, but fully meeting the demand for heating remains a serious problem for a significant part of the population. It is estimated that about 25% of the demand for heat in the residential and public sectors of urban areas remains unmet each year for a number of reasons. Among the main factors are limited energy supplies in winter, especially in years of low water availability: for example, during the 2014–2015 heating season, energy consumption restrictions were introduced in a number of regions, and similar measures to restrict electricity use were expected for the 2019–2020 heating season⁹.

As a result, about 25% of heating needs in residential and public sectors of urban areas remain unmet, especially in years of low water levels, when the country's hydropower potential declines, forcing authorities to impose restrictions on electricity consumption.

The public buildings sector consumes approximately 850 GWh of energy per year, which is 10% of the country's primary energy consumption (10% of national energy consumption and 11% of total coal consumption) and the public buildings sector is one of the largest end users of energy. However, the sector suffers from energy shortages, which results in underheating of public buildings in winter when comfort conditions are much lower than normal. Approximately 70–88% of the energy consumed in public buildings is spent on space heating, with 60% of all public buildings using electricity for space heating¹⁰.

An assessment¹¹ of the state of urban heating systems conducted in 2015 confirmed that on average 20–30% of heating needs in public buildings in urban areas remain unmet each year due to high heat losses and insufficient, unreliable heat and electricity supplies. This leads to serious underheating of facilities and negatively affects the quality of public services provided, as well as the comfort level of students, pupils and staff.

Main issues:

⁹ World Bank, 2019, Combined Project Information Documents /Integrated Safeguards Datasheet (PID/ISDS) Report #: PIDISDSA27915

¹⁰ <https://documents1.worldbank.org/curated/en/987801560494764248/pdf/Roadmap-for-Implementation-of-Energy-Efficiency-in-Public-Buildings-of-Kyrgyz-Republic.pdf>

¹¹ World Bank, “Keeping Warm: Urban Heating Parameters for the Kyrgyz Republic,” 2015.

The assessment was supported by the Energy Sector Management Assistance Program (ESMAP) and the Central Asia Energy Development Program (CAEWDP).

- **Electricity dependence:** During the winter, Kyrgyzstan relies heavily on electricity for heating, which puts additional strain on the power grid and can cause outages during peak consumption periods.
- **Lack of district heating in some regions:** Especially in remote areas, the population is forced to use less efficient and environmentally harmful heat sources, such as coal or firewood.
- **Worn-out heating systems and high heat loss:** Most buildings were not constructed taking into account the energy efficiency, resulting in heat losses of up to 40%.
- **Environmental burden:** During periods of electricity shortages, the use of solid fuels increases, which increases air pollution.
- **Economic burden:** Low energy efficiency and high heat loss increase heating costs, making it difficult to finance the operation of buildings in accordance with the sanitary regulations and rules.

Need for retrofitting and energy efficiency improvements

The public building stock comprises approximately 10,000 facilities, with more than half of these buildings being in the education and healthcare sectors. Most of them were built 35–75 years ago, during the Soviet period, without taking into account energy efficiency requirements. According to the World Bank¹², approximately 90% of buildings require some form of reconstruction. Limited resources for maintenance have led to the deterioration of building envelopes and utilities systems, which results in high heat loss and unsatisfactory technical condition of the buildings. In most of these buildings, the temperature in winter does not reach sanitary standards: in schools and health institutions, it can drop to **13°C**, which negatively affects the health and academic performance of students, reduces labor productivity and the level of services provided.

An additional problem is the high seismic vulnerability of buildings: about 80% of schools and kindergartens do not meet the requirements of national seismic safety standards¹³.

Priority tasks for retrofitting:

- Reducing dependence on electricity for heating in winter.
- Increasing the availability of reliable and efficient heating services.
- Implementing energy-efficient technologies to reduce energy consumption in state and municipal institutions

Modernization of heating systems and improvement of energy efficiency in public buildings allow to reduce energy consumption, reduce heat loss, reduce current utility costs, improve the quality of services provided and increase seismic safety. These measures also contribute to improving the quality of life of the population and supporting sustainable economic development of the country.

Thus, modernization of heating systems and improvement of energy efficiency of public buildings are priority tasks for reducing environmental burden, ensuring energy security and sustainable development of the Kyrgyz Republic.

Theory of Changes (Results chain)

The Theory of Change, presented in Picture 1, illustrates the logical relationship between project activities, intermediate results and long-term effects achieved within Component 2. The Component was implemented in supported communities and pursued two interrelated objectives:

¹² World Bank 2019, Roadmap for the implementation of energy efficiency in public buildings of the Kyrgyz Republic.

¹³ The country's seismic map classifies settlements based on estimated seismicity according to the Medvedev-Sponheuer-Karnik scale; most of the country has 6-9 or more scores on the macro-seismic intensity scale.

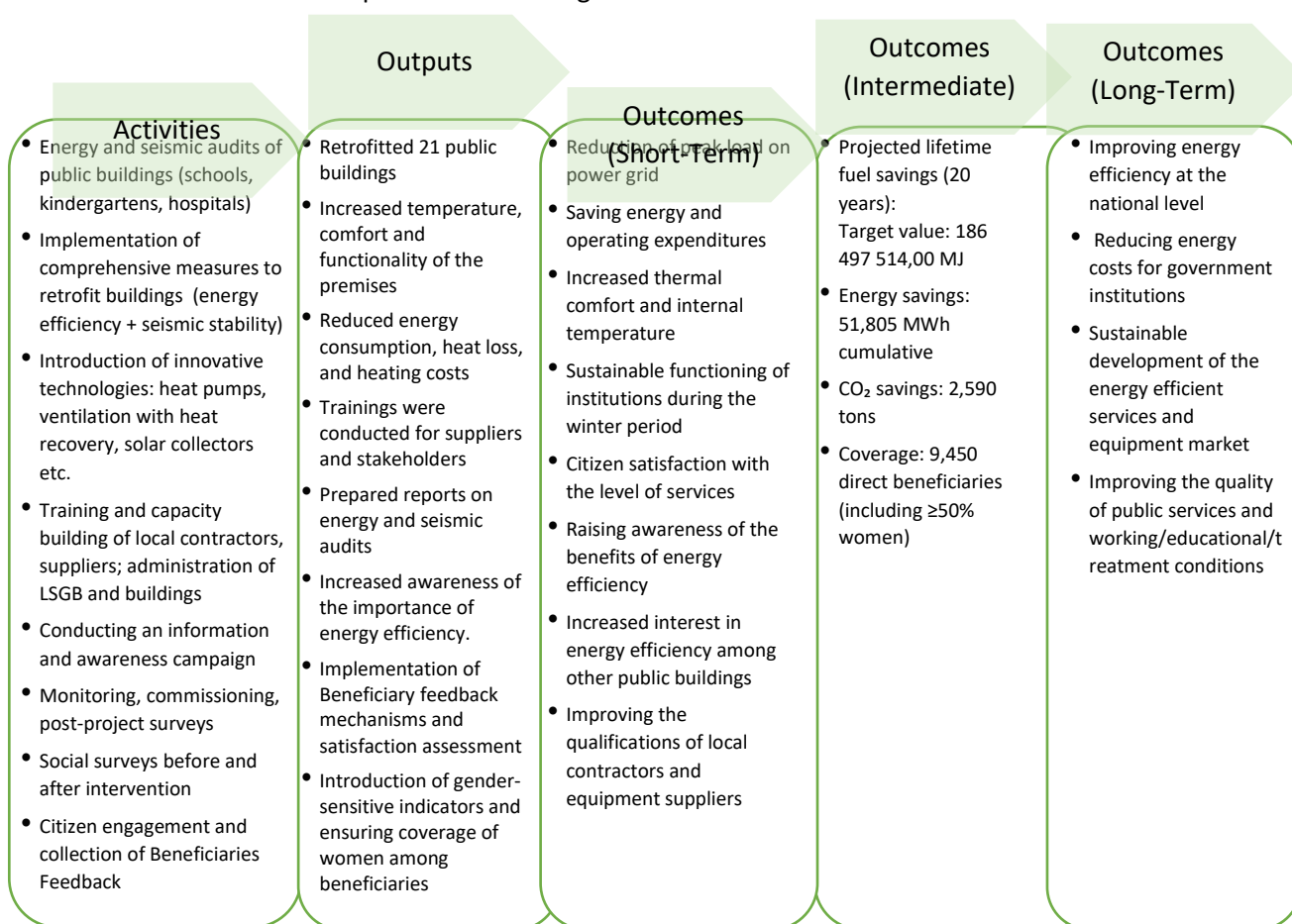
1. Implementation of pilot measures to retrofit public buildings aimed at increasing their energy efficiency and seismic stability;
2. Improving the quality and accessibility of municipal services through the development of institutional and technical capacity at the local level.

Within the framework of the first objective, the project financed a set of measures to insulate buildings, modernize heating, ventilation, lighting systems, and structurally reinforcing buildings to improve seismic stability. In addition, technical assistance measures were implemented, including energy audits and seismic risk assessment. This made it possible to eliminate key operational deficiencies in 21 social infrastructure facilities - schools, kindergartens, and health institutions.

At the same time, the project supported institutional capacity building. Trainings and advanced training programs were conducted, targeting not only municipal technical personnel, but also local contractors, designers, engineering supervision specialists and local government representatives. These activities helped to eliminate the deficit of knowledge and skills required for the high-quality implementation of energy-efficient solutions and subsequent maintenance of retrofitted facilities. The second objective was implemented through the launch of feedback programs with beneficiaries, social surveys before and after retrofitting, as well as information and educational campaigns. This ensured not only an improvement in the quality of service delivery, but also an increase in public awareness of the benefits of energy efficiency and building safety.

Critical assumptions underlying the theory of change:

1. Ability of local contractors to meet energy efficiency and seismic standards;
2. Financial sustainability of municipal service providers to ensure efficient operation of assets;
3. Retention of trained personnel in local government institutions and structures.



4. Project-based approaches will be scaled up and supported at the institutional level.

Objectives of Component 2 Demonstrating the benefits of energy efficiency improvements in public buildings

Component 2 aims the following demonstration impact related with energy efficiency investments:

- reducing energy costs and energy savings
- improving comfort levels (e.g., in terms of temperature, microclimate and indoor lighting)
- improving the functionality of public infrastructure for the provision of public services

This Sub-Component will finance investments in energy efficiency and seismic stability in selected public buildings, primarily in the education and health sectors (e.g., schools, kindergartens, hospitals and clinics), and associated capacity building activities. This Sub-Component aims to demonstrate the multiple benefits of energy efficiency, building on the awareness increasing potential of public facilities and focusing on buildings that use electric heating to maximize energy savings. The expected benefits to be demonstrated are: energy savings and cost reductions, improved comfort levels (e.g., in terms of temperature, indoor climate and lighting), increased sustainability of buildings and improved functionality for the delivery of public services.

Main deliverables of Component 2

The development objective of HSIP Component 2, consisting of several deliverables described below, is assessed by means of the following main indicators:

Main indicators:

1. Projected lifetime fuel savings under the Component 2;
2. Percentage of project beneficiaries reported improvement in heating quality under Component 2.

Intermediate indicators:

1. Number of retrofitted public buildings;
2. Projected lifetime energy savings (cumulative) under the Component 2 (megawatt hour (MW-h));
3. Projected lifetime CO2 savings (cumulative) under the Component 2 (tons);
4. Project direct beneficiaries under the Component 2;
5. Women beneficiaries under the Component 2;
6. Percentage of project beneficiaries who noted the effectiveness of citizen engagement activities;

Component 2 subcomponents

Component 2, aimed at improving energy efficiency in public buildings, consisted of two subcomponents:

- **Subcomponent 2.1: Energy efficiency investments in public buildings** (11 605 369 USD). Sub-component 2.1 financed investments in energy efficiency and seismic stability in selected public buildings, primarily in the **education** and **health** sectors (e.g., schools, kindergartens, hospitals and clinics), as well as institutional capacity building activities.

The subcomponent included two main areas of activity:

- **Activity 1: Energy efficiency investments in selected public buildings** (11 407 369 USD)
Within the framework of this activity, the implementation of investment projects for the retrofitting of public buildings in order to increase their energy efficiency and seismic stability, as well as the provision of related consulting services, were financed. The financing covered energy audits, preparation of design and estimate documentation, monitoring and evaluation (before and after the implementation of subprojects), engineering supervision

of civil work and commissioning of facilities.

- **Activity 2: EE capacity building** (198 000 USD).
The activity aimed to develop local capacity to promote energy savings and raise awareness about energy efficiency.
Support included training for local companies, conducting information campaigns on energy efficiency
- **Subcomponent 2.2: Project Component 2 implementation support** (1 055 631 USD)
Subcomponent 2.2 provided support for the effective implementation of Component 2, including:
 - financing the costs of ARIS personnel activities (the so-called administrative pool);
 - covering operational expenditures associated with the project, as well as conducting trainings;
 - conducting annual audits of the project's financial statements.

Project financing

The total funding for Component 2 was **12.91 million USD**, including:

- **10 million USD from IDA (Grant D2400-KG),**
- **2.661 million USD from SECO (Grant TF0B2457),**
- **250 thousand USD credit line (IDA credit #7374 - Loan term – 50 years, interest rate - 0%, grace period– 10 years).**

Implementation period

The project started on April 25, 2019, and active implementation started in 2020. Official completion is **October 31, 2025**. In 2025, monitoring of the defect's liability period and preparation of final reporting continues.

Geographical coverage of Component 2

The administrative-territorial structure (see Picture 2) of the Kyrgyz Republic is a system of dividing the country's territory into separate units, established for the effective organization of public administration and local self-government. Such units include oblasts, rayons, cities, and ayil aimaks (rural districts), which may include one or more villages.

At the first level are 7 oblasts, as well as 2 cities of national significance - Bishkek and Osh.

The second level includes 44 rayons, of which 4 are inner-city districts of Bishkek, as well as 14 cities of regional significance.

The third level consists of 19 cities of district significance, 268 ayil aimaks (following the administrative reform, their number was reduced from 484), as well as 1870 villages.



Picture 2. Administrative and territorial division of the Kyrgyz Republic

The World Bank and ARIS chose an approach based on the gradual implementation of the project in individual oblasts. This approach was chosen to facilitate supervision and reduce associated costs. At the same time, it allows for coverage of all oblasts of the Kyrgyz Republic.

Accordingly, the implementation of the project covering the oblasts was divided into **three** Rounds:

- Round 1: Talas and Chui oblasts, as well as Bishkek city
- Round 2: Naryn, Jalal-Abad and Issyk-Kul oblasts
- Round 3: Osh and Batken oblasts, as well as Osh city

BRIEF INFORMATION ON IMPLEMENTATION HISTORY WITHIN THE SUBCOMPONENTS

Subcomponent 2.1: EE investments in public buildings

Activity 1: Energy efficiency investments in selected buildings

Within the framework of Subcomponent 2.1, investments were financed to improve the energy efficiency and seismic stability of selected public buildings, mainly in the education and health sectors (e.g., schools, kindergartens, and hospitals).

Prior to the launch of each individual implementation round, roundtables were organized in all oblasts of the Kyrgyz Republic, conducted by the responsible authorized persons under the Component 2. The objective of the meetings was to inform representatives of rayon state administrations (RSA) and local self-government bodies (LSGB) about the tasks, objectives, and implementation arrangements of the project and its components. During the events, the Heat Supply Improvement Project (HSIP), which came into force at the time of launch, was presented, followed by an in-depth discussion of its component structure and approaches.

Buildings selection procedure:

In order to start the building selection process, the project took the following steps separately for each Round:

Advertisement of call for applications

To start the building selection process, ARIS sent out official invitations to submit proposals on an annual basis. The invitations were sent out to:

- Plenipotentiary representatives of the President of KR at the oblasts level,
- Heads of rayon state administrations (akims), mayors of cities.

Invitations were sent out by turns, in accordance with the project rounds schedule. Each rayon administration was entitled to nominate no more than three buildings that met the approved selection criteria. ARIS attached official letters and materials containing detailed instructions, submission deadlines and a clear explanation of the requirements to the invitations.

In total, ARIS sent 53 official invitations to participate in the project (see Table 1).



Description: roundtables based on example of Issyk-Kul oblast



Description: roundtables based on example of Naryn oblast



Description: roundtables based on example of Osh city

Table 1. Call for participation – sending letters to rayon state administrations and local self-government bodies

#	Oblast	Administration	Dates of letters sending
1	Batken oblast	Batken oblast administration	18.01.2021
2		Batken rayon administration	18.01.2021
3		Kadamjai rayon administration	18.01.2021
4		Leylek rayon administration	18.01.2021
5	Bishkek city	Lenin rayon administration	13.11.2017
6		Oktyabr rayon administration	13.11.2017
7		Pervomay rayon administration	13.11.2017
8		Sverdlov rayon administration	13.11.2017
9	Jalal-Abad oblast	Jalal-Abad oblast administration	04.07.2019
10		Aksy rayon administration	04.07.2019
11		Ala-Buka rayon administration	04.07.2019
12		Bazar-Korgon rayon administration	04.07.2019
13		Nouken rayon administration	04.07.2019
14		Suzak rayon administration	04.07.2019
15		Toguz-Toro rayon administration	04.07.2019
16		Toktogul rayon administration	04.07.2019
17		Chatkal rayon administration	04.07.2019
18	Issyk-Kul oblast	Issyk-Kul oblast administration	04.07.2019
19		Ak-Suu rayon administration	04.07.2019
20		Jeti-Oguz rayon administration	04.07.2019
21		Issyk-Kul rayon administration	04.07.2019
22		Ton rayon administration	04.07.2019
23		Tyup rayon administration	04.07.2019
24	Naryn oblast	Naryn oblast administration	04.07.2019
25		Ak-Talaa rayon administration	04.07.2019
26		At-Bashy rayon administration	04.07.2019
27		Jungal rayon administration	04.07.2019
28		Kochkor rayon administration	04.07.2019
29		Naryn rayon administration	04.07.2019
30	Osh oblast	Osh oblast administration	18.01.2021
31		Osh city administration	18.01.2021
32		Alai rayon administration	18.01.2021
33		Aravan rayon administration	18.01.2021
34		Kara-Kulja rayon administration	18.01.2021
35		Kara-Suu rayon administration	18.01.2021
36		Noukat rayon administration	18.01.2021
37		Uzgen rayon administration	18.01.2021
38		Chon-Alai rayon administration	18.01.2021
39	Talas oblast	Talas oblast administration	13.11.2017
40		Aitmatov (Kara-Buura) rayon administration	13.11.2017
41		Bakai-Ata rayon administration	13.11.2017
42		Manas rayon administration	13.11.2017
43		Talas rayon administration	13.11.2017
44	Chui oblast	Chui oblast administration	13.11.2017
45		Tokmok city administration	13.11.2017
46		Alamudun rayon administration	13.11.2017
47		Jayil rayon administration	13.11.2017
48		Kemin rayon administration	13.11.2017
49		Moskva rayon administration	13.11.2017
50		Panfilov rayon administration	13.11.2017
51		Sokuluk rayon administration	13.11.2017
52		Chui rayon administration	13.11.2017
53		Issyk-Ata rayon administration	13.11.2017

Compliance verification

Following the proposals were submitted, ARIS checked whether the proposed buildings met the specified requirements. The application had to contain a completed letter with express of interest, a completed questionnaire, a copy of the building's technical passport, copies of electricity bills, and photographs of the building. The verification was carried out using a questionnaire attached to the invitation. ARIS checked the completeness of the information and, if necessary, requested additional information from the local administration. 16 rayons from the Chui and Talas oblasts and Bishkek city expressed their willingness to participate in the first round of the project, i.e., 100% participation was ensured. A total of 47 applications were submitted.

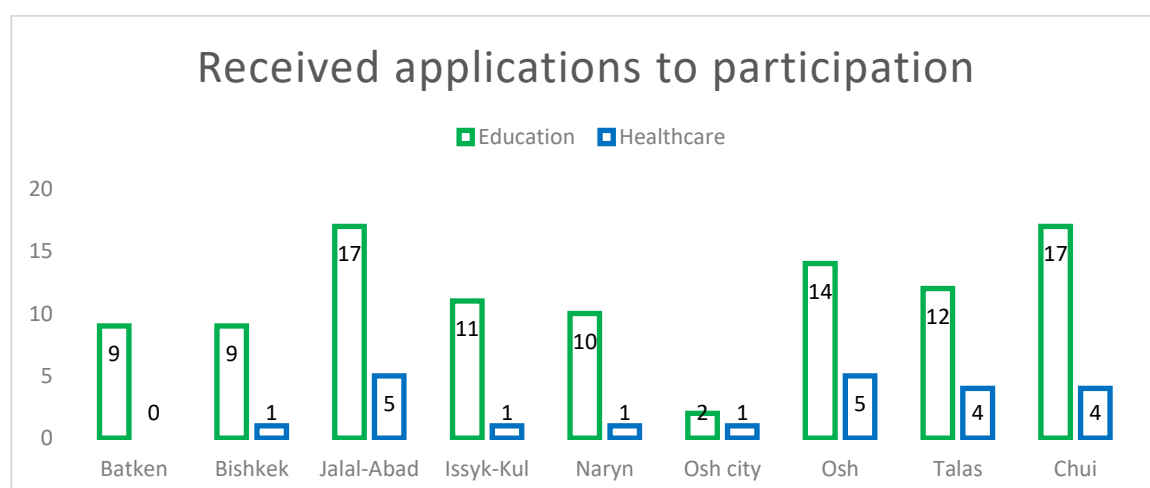
In the Round 2, 38 applications were submitted from the education sector and 9 from the health sector. A total of 45 applications were submitted for participation in the Round 2. Among these, 38 applications were from the education sector and 7 from the health sector. In Round 3, applications were submitted for 31 buildings to participate in the project. Among these, 6 were in the healthcare sector and 25 in the education sector. A total of 123 applications for participation were accepted and reviewed throughout the Republic (see Table 2).

Table 2. Submitted applications for project participation

#	Oblast	Educational facilities	Health facilities	Total facilities
1	Batken	9	0	9
2	Bishkek city	9	1	10
3	Jalal-Abad	17	5	22
4	Issyk-Kul	11	1	12
5	Naryn	10	1	11
6	Osh city	2	1	3
7	Osh	14	5	19
8	Talas	12	4	16
9	Chui	17	4	21
Total		101	22	123

As can be seen from the table, most applications came from the Jalal-Abad and Chui oblasts. Only 10 applications were received from Bishkek city, which is due to the fact that most public buildings in Bishkek have access to district heating. The main buildings that submitted applications are located in new residential areas, which were later incorporated into the city limits and are heated by electricity or solid fuel.

The diagram below shows the number of applications submitted in the areas of education and healthcare. Here you can see that among the total number of applications submitted, **82%** are for education and **18%** are for healthcare.



This imbalance can be explained by several reasons:

- **Numerical superiority of educational institutions.** There are more facilities (schools, kindergartens, colleges) in the education system than in healthcare, especially in rural areas.
- **The worst technical condition of educational buildings.** Many schools and kindergartens were built during the Soviet period and have not carried out major repairs since then, especially in terms of heating.
- **Greater organizational activity** in education. School and kindergarten administrators tend to participate more actively in competitions for funding, request retrofitting more often, and respond more proactively to donor programs.
- **Priority in perception:** Warmth in schools and kindergartens directly affects attendance and children's health, which makes the problem particularly acute in the eyes of local administrations and parents.

Thus, the prevalence of applications from educational institutions is logical and reflects both the quantitative and qualitative state of social infrastructure facilities.

Assessment of buildings according to selection criteria

By order of ARIS, a working group was established consisting of key members of the project team, which ranked the list of buildings approved as meeting the selection criteria. The buildings were ranked according to 2 criteria: specific energy consumption and number of beneficiaries. In Round 1, 10 buildings were selected for walkthrough audit after ranking the applications received, in the second round 11, and in the third round 13. The selection was based on a scoring system developed by the working group. The World Bank team, together with consultants, conducted a walkthrough audit of the buildings with the highest scores. On site, specialists performed instrumental measurements of key indicators, conducted a visual inspection of utilities systems, including heating systems, assessed the quality of lighting and ventilation, measured the heated area, and recorded the overall technical condition of the buildings. The data obtained formed the basis for further detailed assessment and selection of facilities for implementation of energy efficiency retrofitting measures.

It should be noted that during field surveys, discrepancies were often found between the actual characteristics of the facilities and the data specified in the applications. In some cases, this concerned, for example, inaccurately declared heated area, incorrectly specified heat supply source, and other key parameters. In this regard, the list of priority facilities was repeatedly clarified and adjusted during the audit process. Based on the results of the preliminary assessment, the adjusted ranked list was submitted to the Bank for review, and a list was then compiled for a detailed energy and seismic audit.

During the meeting, additional information about the project was presented, including the criteria for selecting buildings and the upcoming phases of its implementation. Participants were informed that the final list of facilities is not final: buildings may be excluded from the project or replaced with alternatives based on the results of a detailed energy and seismic assessment. Such a decision will be made taking into account technical feasibility, the condition of the facilities and the expected effectiveness of the interventions.

Selection of buildings by the Project Advisory Committee

Furthermore, in accordance with the project requirements, an advisory committee was established separately for each round by order of the State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic to approve the list of selected buildings. Meetings were held, during which ARIS and World Bank consultants presented the project, the building selection procedure, and briefly described the eight buildings proposed for approval. It was noted that following the list of buildings was approved, a detailed energy and seismic audit of these facilities would be conducted. Based on the results of this audit, if there is significant damage to the

structural part of the buildings that was not identified during the walkthrough audit, or if retrofitting is not feasible due to the high cost of the proposed solutions, these facilities may be excluded. Based on the results, the advisory committee unanimously decided to approve the proposed buildings for retrofitting within the framework of the project. Based on available resources, planned costs and project design, buildings (approximately 6-8) with the highest rating and a total heated area of approximately 9,700 m² per round were selected.

Signing Cooperation Agreements

Following a detailed energy audit and seismic assessment of the buildings, and provided they met the project requirements and criteria, the next step was to notify the administration of the selected buildings and sign a tripartite cooperation agreement between the RSA, the building administration and ARIS. A total of 21 agreements were concluded.



Description: One of the PAC meetings

Component 2 Implementation process

The process of energy-efficient retrofitting in selected buildings, including the preparation of technical documentation, implementation of energy efficiency measures, supervision, acceptance, monitoring and evaluation following implementation. It was expected that at least **21 buildings** would be rehabilitated by the end of the project.

Energy audits and seismic risk assessments

Upon agreeing on the final list with IDA, an energy audit and seismic assessment were conducted in each of the selected buildings to identify the most economically viable measures to improve energy efficiency and reinforce seismic stability, as required to comply with local standards.

A detailed audit of energy efficiency and seismic stability was carried out as part of technical assistance provided by the Swiss Secretariat for Economic Affairs (SECO). The work was carried out by the international engineering company RINA Consulting S.p.A. in consortium with the local company Unison Group LLC, with the involvement of a team of international and national experts.

Audit included the following phases:

- **Survey and data collection:** In the first phase, specialists visited the sites to collect basic information about the building — its layout, construction, utilities systems, operating conditions, level of technical wear and tear, and available energy resources.
- **Instrumental measurements:** measurements of air temperature, lighting levels, humidity and infrared thermography were carried out to identify heat loss through the building envelope. In addition, the condition of the heat insulation, window and door units, ventilation and heating systems was checked.
- **Energy consumption assessment:** the auditors analyzed data on actual heat and electricity consumption over recent years.
- **Modelling and calculations:** based on the data collected, specialists performed thermal and energy calculations using specialized software, and climate zones¹⁴ were also taken into account. This made

¹⁴ To identify climate zones and GDOS, see Technical Regulation of KR on procedure for certifying the energy efficiency of buildings, Annex 3, 2013.

it possible to determine the current energy efficiency class of the facility and simulate the effect of potential retrofitting measures.

- **Seismic stability assessment:** in addition, a visual and instrumental analysis of the building's structural elements was carried out to assess their resistance to seismic loads in accordance with national regulations and safety standards.
- **Report preparation:** based on the audit results, energy audit and seismic audit reports were prepared for each building, including an energy passport, calculation of the current level of energy efficiency, recommendations for thermal modernization measures, technical drawings, and an assessment of expected energy savings and emissions reductions.

Thus, the energy audit provided a basis for making informed design decisions on building retrofitting, identified the best intervention scenarios, and created a foundation for sustainable energy savings in the budget sector.

Presentation and discussion of investment package

Upon agreeing on the recommendations outlined in the audit reports and seismic risk assessment, ARIS presented the recommended investment package to the local administration and building administration. The main purpose of this step was informing.

Visits to the site were organized with the participation of team members and a safeguards specialist, during which a presentation on the project was given to the beneficiaries of the building and representatives of the parents' committee. During the meeting, the planned measures to improve energy efficiency and seismic stability of the building were presented in detail. Measures to ensure safety and environmental protection, which will be implemented during the retrofitting, were also explained.

Those who attended were given the opportunity to ask questions, make suggestions and comments. All comments received were recorded, reviewed and taken into account in the subsequent implementation of the project. Holding such hearings ensured the transparency of the process and increased the level of involvement of the local community and awareness of key stakeholders. *(For more detailed information, see the chapter 'Compliance with social and environmental requirements')*



Description: public hearings in the building of secondary school named after A. Soltonov



Description: public hearings in the building of secondary school named after #15 named after A. Mukanov

Preparation of design and estimate documentation for buildings retrofitting

The process of preparing design and estimate documentation (DED) for each round was carried out as a single package — for all facilities included in a specific round — and went through several consecutive phases in accordance with national procedures and World Bank requirements.

The first phase involved the development of **preliminary design documentation**, which was submitted to the World Bank and the Client for review. Upon receiving comments from both parties, the contractor made the required amendments and clarifications.

The next phase was the development of a **detailed design**, which also had to be approved by the World Bank. Based on the results of the technical review, the Bank provided comments, to which the designers prepared justifications or made appropriate adjustments. The revised version of the project was resubmitted for no objection.

Following the detailed design was approved by the World Bank, the project was submitted for approval to the **local authorities**. At the same time, the documentation was sent for **state review**, including **environmental review** and consideration by **district architecture and urban planning authorities**. Upon completion of all necessary approvals and receipt of positive opinions, the design and estimate documentation was approved at the **local administration** level.

The final phase was the preparation of **bidding documents** based on the approved design and estimate documentation.

Thus, the preparation of the design and estimate documentation included comprehensive technical development, multi-stage coordination with an international partner (the World Bank) and completion of all procedures required by the legislation of the Kyrgyz Republic (*See Chapter Consulting services*).

Social surveys of buildings

Within the framework of Component 2 the project engaged a consulting company to conduct **social surveys** of buildings selected for retrofitting. The objective of the surveys was to obtain **baseline data** on users' perceptions and satisfaction with conditions in the facilities prior to the **commence of retrofitting**.

The survey covered the opinions of students, teachers, medical staff, administrative staff and other users. This made it possible to record the **initial state** of the quality of conditions in the buildings (including temperature, lighting, comfort and hygiene levels) and to enable these indicators to be compared with the results **upon retrofitting**.

The process was implemented in **two phases**:

- The **first phase** covered buildings selected during the first and second rounds of the project.
- The **second phase** was carried out separately for the third-round facilities.

The **methodology** included user surveys, interviews with representatives of the institutions' administrations, and the collection of quantitative and qualitative data. The results obtained formed the basis for the 'before' indicators and will be used to **assess the effectiveness of the measures implemented** in the final phase of the project. (*See Chapter Monitoring and evaluation*).

Procurement of contractor services for retrofitting and supervision

All procurement of goods, retrofitting, and consulting services under Component 2 was carried out at the ARIS level in accordance with World Bank rules and procedures, as well as the detailed procurement mechanisms set out in Chapter 5 of the Operational Manual.

At the same time, the formal Client for retrofitting was the local self-government bodies (LSGB) or rayon state administration (RSA), depending on the location of the facilities.

The contractors implemented measures to ensure energy efficiency and seismic stability in accordance with the approved project documentation, ESMP and local construction norms.

Engineering supervision was carried out by a separate consulting company hired separately for all three rounds. Supervision consultants:

- monitored compliance of work with project documentation, quality standards and occupational safety regulations;
- verified the accuracy of payment documents based on completion certificates;
- provided regular reports to ARIS (monthly);
- offered solutions when unforeseen technical problems arose.

Component 2 engineers also made monthly visits to the sites and provided reports. (See the section 'Consulting Services').

Acceptance of project results

Upon completion of the DED, the design and supervision consultant supervised the retrofitting as part of the designer supervision. The main task was to ensure that the works performed complied with the approved DED, as well as technical standards and project requirements. As part of the designer supervision, the consultant:

- regularly monitored the retrofitting for compliance with the approved project documentation;
- participated in resolving technical issues that arose and promptly proposed reasonable changes in the event of deviations;
- organized visits by the project team to the sites for visual inspection and study of the work progress;
- conducted a final check to ensure that all previously identified non-conformities and violations had been eliminated;
- submitted a final report on quality of the work performed, the equipment installed and the materials used.

All facilities were additionally checked by the Component 2 energy efficiency engineer prior to the final disbursement was made to the contractor.

Upon completion of the retrofitting, a working commission was established with the participation of representatives of ARIS engineering supervision, the Client, the contractor and the designer. Following the acceptance, a certificate of completion was prepared and the Client initiated the commissioning of the facility.

The retrofitted facilities and procured equipment were transferred to the balance sheet of the respective owners (LSGB/RSA) and were subject to registration in the state or municipal property register. Copies of supporting documents were submitted to ARIS. (See the section on 'Consulting Services').

Social survey following the implementation of energy efficiency measures

Upon completion of the public building retrofitting activities under Component 2, a final social survey was conducted to assess the level of beneficiary satisfaction with the service delivery conditions in the retrofitted

facilities.

The survey covered facilities from all three implementation rounds and included respondents from various target groups, such as administrative staff, teachers, medical workers, parents, and other users. Data collection was carried out with mandatory consideration of the gender of respondents, which made it possible to analyze both the overall perception of the results and to identify differences in assessments between groups of beneficiaries.

The results of this survey formed the basis for one of the key indicators of the project — the level of satisfaction of end users, reflected in the results framework. (*See the chapter 'Monitoring and Evaluation'*).

Awareness increasing and PR campaign

In accordance with Component 2 OM, a large-scale information and awareness campaign was implemented to raise public awareness of energy efficiency measures and demonstrate the results achieved.

The activities covered all retrofitted facilities and included the production of photo and video materials, coverage in national and regional media, and active work on social media. The videos and publications reflected the phases of project implementation, improvements in conditions in the institutions, and the positive changes achieved through retrofitting.

The campaign focused on both the national and community levels, including communication with local authorities, parents, school staff and health institutions. Both traditional communication channels (television, press) and digital platforms and messengers were used.

The messages were accompanied by visual materials and distributed in both official languages. The feedback received helped to raise awareness of the project and emphasized its importance in the eyes of the beneficiaries. The campaign not only helped to spread knowledge about the project, but also contributed to the formation of a positive public perception of energy-efficient solutions. (*See the chapter 'Energy Efficiency Capacity Building'*).

Report on implementation of subprojects, provided to the community and LSGB

Upon completion of Component 2 of the Heat Supply Improvement Project, final events are planned to summarize the results, sharing experiences and strengthen feedback with beneficiaries.

Round tables and conferences are planned with the participation of representatives of state administrations, local self-government bodies, rayon education and health departments, as well as representatives of retrofitted institutions. These meetings will focus on discussing the results of Component 2 implementation, analyzing the results achieved, identifying successful practices and key challenges, and formulating recommendations for the future.

It is expected that such events will become an effective platform for presenting the results of retrofitting, facilitating the sharing experience between institutions from different regions. Particular attention will be paid to gathering feedback from beneficiaries, demonstrating specific examples of the positive impact on heat supply and energy efficiency, and strengthening cooperation between all stakeholders.

Implementation history - facilities

The implementation of HSIP Component 2 was organized in **three consecutive rounds**, each of which included a full range of activities: from energy audits and design to civil work and final assessment. This

approach made it possible to test the processes at pilot sites, adjust implementation methods and scale up successful practices.

Prior to the civil work started at each site, measures were taken to temporarily relocate students, patients and employees. The relevant measures were set out in individual **Social Impact Mitigation Plans** for the **temporary relocation of project affected people**. These plans envisaged mechanisms to ensure the **continuity of educational and medical processes** throughout the entire period of civil work (for more details, see the chapter ‘Compliance with Social and Environmental Requirements’).

Upon completing the temporary relocation measures, the contractors started the technical implementation of the work. **Information stands** were placed at all sites prior to the **start of retrofitting work**, containing data on: the nature of the planned work, the implementation deadlines, the Client and contractor, the estimated cost, contact numbers for feedback.



Description: Stand based on example of secondary school A. Soltonov in village Kalba

The stands also featured the **ARIS website**, where the **Environmental and Social Management Plan (ESMP)** and the **Social Impact Mitigation Plan for Temporary Relocation of People (SIMP)** were available for download.

Throughout the retrofitting work at the facilities and the administration of the Rayon State Administration and Local Self-Government Bodies, information was posted about the **ARIS Beneficiary Feedback Mechanism (BFM)** for receiving requests from beneficiaries. This made it possible to respond quickly to emerging issues and contributed to the effective work of both contractors and the project team.

The BFM was used as a **convenient and effective channel of communication** between beneficiaries and ARIS specialists, allowing for the receipt of extended messages, including **photos and videos**, which significantly **expedited the process of handling requests** and ensured **more accurate and comprehensive responses**. The placement of stands contributed to the creation of an open and transparent environment for the project implementation, allowing residents and users of the facilities to receive all the required information in a timely manner and, if necessary, to ask questions or make suggestions.



Description: Informing about BFM at the facility and administration building

ROUND 1

Secondary school in village Sretenka

Table 3. Contract data for secondary school in village Sretenka

Contract name	Improving energy efficiency of school building in village Sretenka, Moskva rayon, Chui oblast (Lot #2)	
Contract code	IDA-HSIP-NCB-2020-1/2	
Contractor	LLC Archstroyinvest	
Contract amount at the beginning		18 861 200.79 KGS
Actual contract cost		18 039 182.15 KGS
Date of work commencement	29.04.2021.	
Date of completion according to plan	28.02.2022.	
Date of completion in fact	06.12.2021.	

Upon completion of the design and estimate documentation (DED) for the secondary school in the village of Sretenka, a tender was announced on December 30, 2020 to select a contractor to carry out retrofitting. Following the tender procedures, on April 29, 2021, a contract was signed with Archstroyinvest LLC for implementation of measures to improve the energy efficiency of the building. The work was carried out in accordance with the design and estimate documentation developed by Synch LLC. The contract term, according to the agreement, was 10 months. However, all work was completed ahead of schedule — in 7 months and 7 days — ahead of schedule.

Retrofitting was carried out exclusively within the territory of the educational institution. The contract did not envisage additional work outside its boundaries. During the retrofitting period, the educational process for students was organized in another building of the comprehensive school in Sretenka village.

The contract savings amounted to 822,018.64 KGS, which reflects the effective planning and management of the work at the site.





On December 10, 2021, a grand opening ceremony was held for the secondary school following the completion of its retrofitting.



Links to materials:

1. <https://www.aris.kg/news/aris-moderniziroval-zdanie-shkoly-v-sele-sretenka>
2. <https://www.youtube.com/watch?v=aQ1TAKlU4vw>
3. <https://sretenskaya.mektebim.kg/news/otkrytie-nachalnoy-shkoly/>

Secondary school named after A. Soltonov

Table 4. Contract data for secondary school named after A. Soltonov

Contract name	Improving energy efficiency of secondary school building named after A. Soltonov in village Kalba of Kalba ayil aimak of Talas rayon of Talas oblast	
Contract code	IDA-HSIP-NCB-2021-1/1	
Contractor	Consortium LLC "Alym-Stroi" and LLC "Capital Building Ltd."	
Contract amount at the beginning		20 550 456.40 KGS
Actual contract cost		17 983 710.22 KGS
Date of work commencement	23.06.2021.	
Date of completion according to plan	22.04.2022.	
Date of completion in fact	22.04.2022.	

On June 23, 2021, contract #IDA-HSIP-NCB-2021-1/1 was signed with the consortium of Alym-Stroy LLC and Capital Building LTD LLC for the performance of work to improve the energy efficiency of the secondary school building named after A. Soltonov in village Kalba, Talas oblast. The design and estimate documentation (DED) for the retrofitting of this facility was developed by Synch LLC.

All retrofitting work were completed on schedule — by April 22, 2022, in full compliance with the approved DED. The work was carried out exclusively within the territory of the educational institution; the project did not envisage additional work outside its boundaries. During the retrofitting period, the educational process was organized online (*see section 8.1. ESMP*).

The actual cost of the project was 17,983,710.22 KGS, which is 2,566,746.18 KGS less than the initial contract amount. The savings demonstrate proper resource management, effective control over the work progress, and conscientious implementation of project activities.





Description: Building after retrofitting

Upon completion of the retrofitting, the grand opening of the retrofitted school building took place on June 9, 2022. The event was attended by a member of the Jogorku Kenesh of the Kyrgyz Republic, the project coordinator, the head of the ayil okmotu, the school administration and representatives of the local community.



Links to materials:

1. <https://kabar.kg/news/v-sele-kalba-talasskoi-oblasti-sostoialos-otkrytie-shkoly-posle-rekonstrukcii/>
2. https://www.vb.kg/doc/419068_v_sele_kalba_talasskoy_oblasti_posle_modernizacii_otkrylas_shkola.html
3. <http://kg.kabar.kg/news/talasta-energoeffektivd-l-k-metodu-menen-modernizatcialangan-mektep-achyldy/>
4. <https://www.youtube.com/watch?v=CSNAObxLjdk>

Table 5. Contract data for secondary school #82 in residential area Ala-Too

Secondary school #82 in residential area Ala-Too

Upon completion of the design and estimate documentation (DED) for secondary school #82 in the Ala-Too

Contract name	Improving energy efficiency of secondary school building #82 in residential area Ala-Too, Lenin rayon, Bishkek city (Lot #1)	
Contract code	IDA-HSIP-NCB-2020-1	
Contractor	Consortium LLC Biyik KG and LLC AT Empire	
Contract amount at the beginning		24 432 759.16 KGS
Actual contract cost		23 306 272.12 KGS
Date of work commencement	29.04.2021.	
Date of completion according to plan	28.04.2022.	
Date of completion in fact	28.04.2022.	

residential area, a bidding for retrofitting was advertised on December 30, 2020. Based on the results of the procurement procedure, on April 29, 2021, a contract was signed with a consortium of contractors, Biyik KG LLC and AT Empire LLC, for a total amount of 24,432,759.16 KGS.

The work started on June 23, 2021 and was completed on schedule on April 28, 2022. Upon completion of the project and technical acceptance, the investment cost certificate was signed and the facility was transferred to the owner's balance sheet.

The actual cost of the work amounted to 23,306,272.12 KGS, which resulted in savings of 1,126,487.04 KGS, mainly due to funds allocated for contingencies.





Description: Visiting facility on 12.10.2021. Joint visit together with representatives of State Secretariat of Swiss Government for Economic Affairs to familiarize with the retrofitting progress and applied materials to improve EE of building.



Description: Building after retrofitting



On September 7, 2022, Secondary School #82 in Lenin rayon of Bishkek was officially opened. The event was attended by the head of the municipal administration of the Lenin rayon of Bishkek, R.T. Tagayev, deputy of the JK of KR, T.S. Sultanov, deputy mayor V.A. Mozgachyova, deputy chairman of the BCK, S.K. Kenjebayev, ARIS Executive Director, M.D. Naspekov, and the HSIP team.



Links to materials:

1. https://www.kabar.kg/old/index.php?option=com_content&view=article&id=749:otkrytie-posle-rekonstruktsii-srednej-shkoly-82-zhilogo-massiva-ala-too&catid=8&lang=ru&Itemid=160
2. <https://bishkek.gov.kg/ru/post/25203>
3. https://www.youtube.com/watch?v=D_3G4YdsWUw
4. <http://kg.kabar.kg/news/ala-too-konushundagy-82-mektep-o-dop-t-z-ishterinen-kiiin-achyldy/>
5. <https://bilim.akipress.org/ru/news:1803135///?embed&pack=161>
6. <https://kabar.kg/news/v-zhilmassive-ala-too-posle-rekonstrukcii-otkryli-shkolu-82/>

Secondary school named after R. Shukurbekov

Table 6. Contract data for secondary school named after R. Shukurbekov

As part of project activities to improve the energy efficiency of public infrastructure, retrofitting started on

Contract name	Improving energy efficiency of secondary school building named after R. Shukurbekov in village Maimak, Maimak ayil aimak of Kara-Buura rayon of Talas oblast	
Contract code	IDA-HSIP-NCB-2021-1/Lot2/RT1	
Contractor	LLC TK Universal Electro	
Contract amount at the beginning		19 201 368.37 KGS
Actual contract cost		18 233 947.64 KGS
Date of work commencement	19.08.2021.	
Date of completion according to plan	20.06.2022.	
Date of completion in fact	23.05.2022.	

August 19, 2021 at the secondary school named after R. Shukurbekov in Maimak village, Kara-Buura rayon, Talas oblast.

The project was implemented in accordance with contract #IDA-HSIP-NCB-2021-1/Lot2/RT1 with the contractor Universal Elektro LLC for the amount of 19,201,368.37 KGS.

The work was completed ahead of schedule on May 23, 2022, with the planned completion date being June 20, 2022, in compliance with all technical requirements and design parameters. During the retrofitting period, the educational process was organized online (*see section 8.1. ESMP*)

The actual cost of the contract amounted to 18,233,947.64 KGS, which resulted in savings of 967,420.73 KGS, mainly due to the correct optimization of the budget for contingencies.





Description: Building after retrofitting



The grand opening of the facility took place on September 3, 2022. The event was attended by the Plenipotentiary Representative of the President of the Kyrgyz Republic in the Talas oblast, Narbekov B. N., the head of the state administration (akim) of the Kara-Buura rayon, Sagymbayev B. A., representatives of local self-government bodies, ARIS employees, and residents of the village.



Links to materials:

1. <https://www.aris.kg/news/v-kara-buurinskom-rajone-talasskoj-oblasti-sostoyalas-tseremoniya-otkrytiya-srednej-shkoly-imeni-r-shukurbekova-posle-rekonstruktsii>
2. <https://eltr.kg/ru/v-talasskoj-oblasti-otkryli-shkolu-imeni-r-shukurbekova-posle-rekonstrukcii/>
3. <https://kabar.kg/news/v-talasskoi-oblasti-otkryli-shkolu-imeni-r-shukurbekova-posle-rekonstruktsii/>
4. <http://kg.kabar.kg/news/kara-buura-raionundagy-r-sh-k-rbekov-atyndagy-mektep-o-doodon-tt/>
5. <https://barometr.kg/talasta-shkrbekov-atyndagy-mekteptin-rekonstrukciyadan-kijinki-achylysh-azemi-boldu>

Kindergarten #5 Altyn-Balalyk

Table 7. Contract data for kindergarten #5 Altyn-Balalyk

Contract name	Improving energy efficiency of kindergarten building #5 "Altyn-Balalyk" in village Novopokrovka of Logvinenko ayil aimak of Issyk-Ata rayon of Chui oblast	
Contract code	IDA-HSIP-NCB-2021-3	
Contractor	LLC Incom Systems	
Contract amount at the beginning		14 412 768.70 KGS
Actual contract cost		12 375 501.99 KGS
Date of work commencement	18.01.2022.	
Date of completion according to plan	17.10.2022.	
Date of contract extension	02.11.2022.	
Date of completion in fact	01.11.2022.	

On January 18, 2022, contract #IDA-HSIP-NCB-2021-3 was signed with Incom Systems LLC for the performance of work to improve the energy efficiency of the Altyn-Balalyk Kindergarten #5 building in Novopokrovka village, Issyk-Ata rayon, Chui oblast. The estimated cost of the work was 14,412,768.70 KGS.

The work was carried out on the basis of design and estimate documentation prepared by Synch LLC and continued for 9.5 months. During the retrofitting period, the educational process was organized online (see section 8.1. ESMP). The actual completion of the work took place on November 1, 2022.

The actual cost of the work performed amounted to 12,375,501.99 KGS, which resulted in savings of 2,037,266.71 KGS, mainly due to unclaimed reserves for contingencies.

Description: Building prior to retrofitting





Description: Building after retrofitting



Description: On October 27, 2022, a ceremonial opening of the kindergarten following the retrofitting was held with the participation of the Deputy Minister of Education of the Kyrgyz Republic Kasymov N.A., Ambassador of Switzerland Olivier Bangerter, World Bank Country Director Naveed Hassan Naqvi, ARIS Executive Director Naspekov M.D. together with the HSIP team.



Links to materials:

1. https://www.aris.kg/index.php?option=com_content&view=article&id=873:v-ysyk-atinskom-rajone-chujskoj-oblasti-sostoyalas-tseremoniya-otkrytiya-posle-modernizatsii-detskogo-sada-altyn-balalyk&catid=8&lang=ru&Itemid=160
2. <https://www.youtube.com/watch?v=LTU58Evh6ic>
3. <https://www.youtube.com/watch?v=WZvPrWxchK0>
4. <https://www.youtube.com/watch?v=13rZUZ98bvQ>
5. https://oper.kaktus.media/doc/469771_detsad_v_chyyskoy_oblasti_sdelali_energoeffektivnym_na_dengi_shveytsarii_i_vsemirno_go_bank.html

General Medical Practice Center for Panfilov rayon

Table 8. Contract data for GMPC of Panfilov rayon

Contract name	Improving energy efficiency of building of the General Medical Practice Center in village Panfilovskoye of Kurama ayil aimak of Panfilov rayon of Chui oblast (RT1)	
Contract code	IDA-HSIP-NCB-2022-2-RT/1	
Contractor	LLC Ak-Tulpar	
Contract amount at the beginning		164 463 149.06 KGS
Contract amount with sales tax in the amount of 2%		166 540 893.87 KGS
Amount according to the Completion Certificate		160 191 164.87 KGS
Date of work commencement	01.07.2022.	
Date of completion according to plan	01.09.2023.	
Extension	29.03.2024.	
Date of completion in fact	29.03.2024.	

On July 1, 2022, contract #IDA-HSIP-NCB-2022-2-RT/1 was signed with Ak-Tulpar LLC for the retrofitting of a 4-storey building of the General Medical Practice Center (GMPC) in Panfilovskoye village. The total contract value was **164,463,149.06 KGS**.

Due to the amendments in the tax legislation of the Kyrgyz Republic, which entered into force on January 1, 2023 in accordance with Law #4 dated January 18, 2022 "On introduction of the Tax Code", the contractor requested an adjustment to the contract amount. The amendments concerned the introduction of a 2% sales tax (ST) rate, previously not taken into account in the design calculations, the contract amount was equal to **166,540,893.87 KGS**.

The work was carried out in accordance with the design and estimate documentation developed by Synch LLC. Taking into account the extension, the actual duration of the civil work was 20 months - until March 29, 2024. Upon completion of the project, the amount of the completion certificate (CC) amounted to **160,191,164.87 KGS**, which is **6 349 729.00 KGS** less than the contract amount, demonstrating effective project management and budget savings.

During the retrofitting, the building of the General Medical Practice Center was completely vacated, and all departments were temporarily located in other medical institutions of the Panfilov and Jayil rayons. The procedure for relocation is described in the Social Impact Mitigation Plan developed within the framework of the project. The document identifies measures to ensure the uninterrupted operation of the General Medical Practice Center in alternative locations.







On August 30, 2024, a grand opening ceremony of the General Medical Practice Center (GMPC) of Panfilov rayon was held following the completion of retrofitting. The event was attended online by the President of the Kyrgyz Republic S. Japarov. The ceremony was held in the presence of the Minister of Health of the Kyrgyz Republic A. Beishenaliyev, representatives of the rayon administration, the Community Development and Investment Agency (ARIS), medical personnel, as well as residents of Panfilov rayon, who were eagerly awaiting the completion of retrofitting.





Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0gws7cMiUKfFQYqfPpFMTyzAdoEwJYcwU2HRernYGcvG6UvKNGWSpsLloGEK2Qgayl>
2. <https://www.facebook.com/watch/?v=1017317126201942>
3. <https://www.aris.kg/news/puts-zhitelyam-panfilovskogo-rajona-uluchshili-dostup-k-medicinskomu-obslyuzhivaniyu>

ROUND 2

Secondary school #15 named after A. Mukanov

Table 9. Contract data for secondary school #15 named after A. Mukanov

Contract name	Improving energy efficiency of secondary school building #15 named after A. Mukanov in village Baizak of Santash ayil aimak of Tyup rayon of Issyk-Kul oblast	
Contract code	SECO-HSIP-NCB-2022-1/2	
Contractor	Consortium LLC Alym-Stroi and LLC SK Optima	
Contract amount at the beginning		39 189 648.05 KGS
Actual contract cost		39 075 494.39 KGS
Date of work commencement	26.04.2022.	
Date of completion according to plan	26.04.2023.	
Date of completion in fact	27.03.2023.	

On April 26, 2022, a contract was signed with the consortium of contractors Alym-Stroy LLC and SK Optima LLC for the amount of 39,189,648.05 KGS. The work covered the retrofitting of the building of Secondary School #15 named after A. Mukanov in Baizak village, including measures to improve energy efficiency and seismic stability. All work was carried out in accordance with the design and estimate documentation developed by EAAS LLC. During the work, the educational process was organized in an alternative school. The educational process and social risks were taken into account in the Social Impact Mitigation Plan.

The actual completion of the work occurred on March 27, 2023, a month earlier than the planned date. As a result, the final amount of work performed was 39,075,494.39 KGS, which ensured savings of 114,153.66 KGS.



Description: Building prior to retrofitting







Description: On April 14, 2023, the grand opening of the building took place with the participation of the First Lady of the Kyrgyz Republic, parliament members and representatives of the Ministry of Education and local administration and beneficiaries

Links to materials:

1. https://www.aris.kg/index.php?option=com_content&view=article&id=1198:ssh-15-im-a-mukanova-v-tyupskom-rajone-otkryla-svoi-dveri-posle-polnoj-modernizatsii-zdaniya&catid=8&lang=ru&Itemid=160
2. <https://kabar.kg/news/aigul-zhaparova-priniala-uchastie-v-otkrytii-otremontirovannoi-shkoly-na-issyk-kule/>
3. <https://www.youtube.com/watch?v=TwOfOMAb9dw>
4. https://24.kg/obshchestvo/263336_aygul_japarova_prinyala_uchastie_votkrytii_obnovlennoy_shkolyi_vsele_santash/
5. <https://vesti.kg/obshchestvo/item/111408-aris-provel-remont-v-shkole-tyupskogo-rajona-gde-uchilas-pervaya-ledi-aigul-zhaparova.html>

Kindergarten Janyl-Myrza

Table 10. Contract data for kindergarten Janyl Myrza

Contract name	Improving energy efficiency of kindergarten building Janyl-Myrza in village Kazarman of Toguz-Toro ayil aimak of Toguz-Toro rayon of Jalal-Abad oblast (Lot 1)	
Contract code	IDA/SECO-HSIP-NCB-2022-2	
Contractor	Consortium OJSC MSPMK-2 and LLC SPP Oshkoopkurulush	
Contract amount at the beginning		16 996 562.23 KGS
Actual contract cost		15 910 459.93 KGS
Date of work commencement	28.07.2022.	
Date of completion according to plan	28.04.2023.	
Date of completion in fact	28.04.2023.	

On July 14, 2022, contract #IDA / SECO-HSIP-NCB-2022-2 was signed with the consortium of contractors OJSC MSPMK-2 and SPP Oshkoopkurulush LLC for the performance of retrofitting in the building of Janyl-Myrza kindergarten, located in Kazarman village, Jalal-Abad oblast. Retrofitting started on July 28, 2022 and continued for 9 months. All retrofitting activities were completed on time - April 28, 2023.

Retrofitting was carried out exclusively within the territory of the kindergarten. Additional retrofitting activities outside the site were not envisaged by the facility. Design and estimate documentation were developed by EAAS LLC. During the retrofitting period, the educational process was organized online, as well as in an alternative premise, in accordance with the activities outlined in the Social Impact Mitigation Plan for the temporary relocation of project affected people. The actual cost of the work was 15,960,059.94 KGS, which is lower than the original contract amount by 1,036,502.29 KGS, savings achieved through effective planning.



Description: Building after retrofitting





On May 24, 2023, the official opening ceremony of the kindergarten named after Isa kyzy Janyl-Myrza was held in Kazarman village following the retrofitting. The event was attended by the Coordinator of Component 2 U. Bidinov, representatives of local authorities, employees of the preschool institution, parents and residents of the village. The retrofitted kindergarten has become an important element of social infrastructure, providing comfortable and safe conditions for children and staff.

Links to material:

1. https://www.aris.kg/index.php?option=com_content&view=article&id=1250:detskij-sadik-im-isa-kyzy-zhanyl-myrza-s-kazarman-otkryvaet-svoi-dveri-posle-modernizatsii-predlagaya-sovremennoe-obrazovatel-noe-prostranstvo-dlya-detej&catid=8&lang=ru&Itemid=160
2. <https://eltr.kg/ru/detskij-sadik-sela-kazarman-otkryvaet-svoi-dveri-posle-modernizacii/>
3. https://www.facebook.com/100070431365119/videos/963113424870977/?_so=_permalink
4. <https://kabar.kg/news/v-sele-kazarman-otkryli-detsad-posle-modernizacii/>

Table 11. Contract data for secondary school #89 named after P. Jumanazarov

Secondary school #89 named after P. Jumanazarov

On April 30, 2022, contract #SECO-HSIP-NCB-2022-1/1 was signed with Ak-Tulpar LLC for retrofitting in the

Contract name	Improving energy efficiency of secondary school building #89 named after P. Jumanazarov in village Chymchyk-Jar of Yrys ayil aimak of Suzak rayon of Jalal-Abad oblast (Lot 1)	
Contract code	SECO-HSIP-NCB-2022-1/1	
Contractor	LLC Ak-Tulpar	
Contract amount at the beginning		61 029 775.21 KGS
Actual contract cost		51 236 013.82 KGS
Date of work commencement	11.07.2022.	
Date of completion according to plan	10.07.2023.	
Extension	20.07.2023.	
Date of completion in fact	20.07.2023.	

building of secondary school #89 named after P. Jumanazarov, located in the village of Chymchyk-Jar, Suzak rayon, Jalal-Abad oblast. The total contract amount was 61,029,775.21 KGS.

The duration of the retrofitting under the contract was 12 months. Upon signing the contract, the contractor started mobilization activities, but the actual vacating of the school building was completed only by June 30, 2022. Due to the need to perform additional work, the contract period was extended until July 20, 2023.

During the retrofitting, the educational process was organized in an alternative premise. Measures to ensure continuity of learning were included in the Social Impact Mitigation Plan for the temporary relocation of project affected people.

During the entire period of project implementation, no complaints were received from beneficiaries. The design and estimate documentation were developed by EAAS LLC, in accordance with which the building was retrofitted with the introduction of energy-efficient solutions.

Description: Building prior to retrofitting



Description: Building after retrofitting



On September 15, 2023, a grand opening ceremony of the retrofitted building of Secondary School #89 named after P. Jumanazarov was held. The event was attended by invited guests, representatives of the HSIP, local authorities, teaching staff, school students, and, of course, village residents.



Links to materials:

1. <https://www.facebook.com/watch/?v=800510247953218>
2. <https://www.facebook.com/watch/?v=266479296301973>
3. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid02LflwVpqKHWzenyCPvaYxEdkE5KQ3b6wU3rNHvW5HJnfrNTEz6dHU75kcG4Je8TJbl>

Secondary school #1 named after T. Moidunov

Table 12. Contract data for secondary school #1 named after T. Moidunov

Contract name	Improving energy efficiency of secondary school building #1 named after T. Moidunov in village Kazarman of Kargalyk ayil aimak of Toguz-Toro rayon of Jalal-Abad oblast (Retender Lot 2)	
Contract code	IDA/SECO-HSIP-NCB-2022-2/LOT2/RT1	
Contractor	Consortium of companies LLC Archstroyinvest and LLC Chin-Alin	
Contract amount at the beginning		94 047 670.17 KGS
Actual contract cost		92 332 577.92 KGS
Date of work commencement	14.09.2022.	
Date of completion according to plan	14.11.2023.	
Extension	11.12.2023.	
Date of completion in fact	11.12.2023.	

On September 14, 2022, contract #IDA/SECO-HSIP-NCB-2022-2/LOT2/RT1 was signed with the consortium of Archstroyinvest LLC and Chin-Alin LLC for the performance of work to improve the energy efficiency of the building of secondary school #1 named after T. Moidunov, located in Kazarman village. The initial contract amount was 94,047,670.17 KGS.

The period for implementing retrofitting measures was 15 months. Due to the need to perform additional work, the contract period was extended, and the actual completion of the work took place on December 11, 2023. Design and estimate documentation were developed by EAAS LLC.

During the retrofitting period, the educational process was organized in alternative buildings. Measures to ensure uninterrupted learning were included in the Social Impact Mitigation Plan for the temporary relocation of project affected people. No complaints were registered from beneficiaries during the entire period of the project implementation. The actual cost of the contract was 92,332,577.92 KGS, which is 1,715,092.25 KGS lower than the initially approved amount.





Description: Building after retrofitting



On December 21, 2023, in Kazarman village, Toguz-Toro rayon, Jalal-Abad oblast, a grand opening ceremony of the retrofitted building of secondary school #1 named after T. Moidunov was held. The opening event was attended by ARIS employees, representatives of local self-government bodies, teaching staff and students of the school, as well as local residents.



Links to materials

1. <https://www.facebook.com/ariskyrgyzstan/videos/1089459728849388/>
2. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid036KpMvFk3QgX96SK5dTZu1ZHMsQ3SN3kVjYScrFmBnZChCNyoiKf8JvS9k8tsl>
3. <https://youtu.be/ExsY7f-q7X8?si=wOhmCjI4REmgPcx1>
4. <https://www.kabar.kg/news/provedennaia-modernizatcia-v-shkole-1-im.t.moidunova-v-toguz-torouskom-raione-pozvolila-povysit-energoeffektivnost/>

General Medical Practice Center for Ak-Talaa rayon

Table 13. Contract data for GMPC of Ak-Talaa rayon

Contract name	Improving energy efficiency of building of the General Medical Practice Center named after A. Kokkozov in village Bayetovo of Bayetov ayil aimak of Ak-Talaa rayon of Naryn oblast	
Contract code	IDA/SECO-HSIP-NCB-2022-3/2	
Contractor	LLC Construction company Sher-Kurulush	
Contract amount at the beginning		56 653 514.74 KGS
Contract amount with sales tax 2%		57 557 256.27 KGS
Actual contract cost		57 285 836.73 KGS
Date of work commencement	20.10.2022.	
Date of completion according to plan	20.10.2023.	
Extension	31.01.2024.	
Date of completion in fact	31.01.2024.	

On September 16, 2022, **contract #IDA / SECO-HSIP-NCB-2022-3/2** was signed with Sher-Kurulush Construction Company LLC for retrofitting the building of the General Medical Practice Center named after A. Kokkozov in Bayetovo village, Ak-Talaa rayon of Naryn oblast. The initial cost of the contract was **56,653,514.74 KGS**, and the work started on October 20, 2022.

During the implementation process, it became required to extend the contract execution deadline until January 31, 2024. This was due to the impossibility of carrying out work in both buildings simultaneously, as well as the need to carry out additional construction activities. The total duration of the retrofitting was 15 months. All work was completed within the established extended deadline and accepted without complaints.

Due to amendments in the tax legislation of the Kyrgyz Republic, which came into force on January 1, 2023 in accordance with Law #4 dated January 18, 2022 'On the Enactment of the Tax Code,' the contractor requested an adjustment to the contract amount. The amendments concerned the introduction of a 2% sales tax rate (ST), which had not been previously taken into account in the project calculations. The contractor's additional expenses amounted to **903,741.53 KGS**, which was reflected in **Amendment #4** to the contract, approved on January 15, 2024.

Taking into account the adjustment, the contract amount was increased to **57,557,256.27 KGS**. However, based on the results of the work, the actual cost according to the completion certificate (CC) amounted to **57,285,836.73 KGS**, which indicates savings of **271,419.54 KGS** from the revised budget, despite the increase in the scope of work.

All work was carried out in full compliance with the technical specifications and energy efficiency requirements based on the design and estimate documentation developed by EAAS LLC in accordance with applicable standards and approved as required.

During the period of retrofitting the building of the General Medical Practice Center was partly vacated: the one part of the staff was moved to the second block; the other part was moved temporarily to the old building. The activities for organizing the work of the GMPC during the retrofitting are specified in the Social Impact Mitigation Plan during the temporary relocation of project affected people. There were no incidents and complaints during the reporting period of retrofitting.





Description: Building after retrofitting





Link to material:

<https://www.facebook.com/watch/?v=275467131640442>

Gymnasium school #7 named after T. Tursunbayeva

Table 14. Contract data for gymnasium school #7 named after T. Tursunbayeva

Contract name	Improving energy efficiency of gymnasium school building #7 named after T. Tursunbayeva in village Chayek of Chayek ayil aimak of Jumgal rayon of Naryn oblast (Lot 1)	
Contract code	IDA/SECO-HSIP-NCB-2022-3/1	
Contractor	LLC Construction company Sher-Kurulush	
Contract amount at the beginning		81 980 700.86 KGS
Contract amount with a 2% sales tax		83,074,617.92 KGS
Amount of completion certificate		79 357 497.34 KGS
Date of work commencement	19.09.2022.	
Date of completion according to plan	19.11.2023.	
Extension	15.07.2024.	
Date of completion in fact	15.07.2024.	

On September 19, 2022, contract #IDA / SECO-HSIP-NCB-2022-3/1 was signed for retrofitting of gymnasium school #7 named after T. Tursunbayeva in Chayek village with LLC "Construction Company" Sher-Kurulush ". the initial contract amount is **81,980,700.86 KGS**.

During the implementation process, it became required to extend the deadline for the work until **July 15, 2024**, which was due to a combination of factors, including the need to perform additional volumes, delays in payment for the work performed, as well as weather conditions in the autumn-winter period. Taking into account the extension, the total duration of the retrofitting work was **22 months**.

In addition, in connection with the entry into force of the new version of the Tax Code of the Kyrgyz Republic (Law #4 dated January 18, 2022), the contractor requested a review of the contract price, taking into account the introduction of a 2% sales tax rate. According to the reviewed request and the signed **Amendment #3 dated 15 January 2024**, the contract amount was increased by **1,093,917.06 KGS**, and the final approved amount was **83,074,617.92 KGS**.

The actual cost of the work performed according to the completion certificate (CC) amounted to **79,357,497.34 KGS**, which is **2,623,203.52 KGS** lower than the original contract amount. This demonstrates effective contract management and cost optimization.

Despite this adjustment, the savings from the actual work performed amounted to **3,717,120.58 KGS** from the total contract value after all amendments.

The design and estimate documentation developed by EAAS LLC in accordance with applicable building regulations and has been approved in accordance with established procedures. All retrofitting activities were carried out in full compliance with the technical requirements of the project, including energy efficiency requirements.

During the period of retrofitting, educational processes take place at the nearby school named after Midin Alybayev. Information on the organization of learning during the period of school retrofitting is described in the Social Impact Mitigation Plan for the temporary relocation of project affected people. There were no incidents and complaints during the reporting period of retrofitting.





Description: Building after retrofitting





Link to material: https://www.facebook.com/100070431365119/videos/278470214665740/?_so_=_permalink

ROUND 3

Secondary school named after T. Sadykov

Table 15. Contract data for secondary school named after T. Sadykov

Contract name	Improving energy efficiency of secondary school building named after T. Sadykov in village Ak-Tatyr of Ak-Tatyr ayil aimak of Batken rayon of Batken oblast	
Contract code	IDA/SECO-HSIP-NCB-2022-4-RT/1	
Contractor	Consortium of companies LLC Ilek Stroy Group and LLC Beyshembai Kurulush	
Contract amount at the beginning		61 935 195.30 KGS
Actual contract cost		57 247 978.40 KGS
Date of work commencement	17.02.2023.	

Date of completion according to plan 31.12.2023.
Date of completion in fact 29.12.2023.

On February 17, 2023, contract #IDA/SECO-HSIP-NCB-2022-4-RT/1 was signed with the consortium of contractors Ilek Stroy Group LLC and Beishembay Kurulush LLC to perform work to improve the energy efficiency of the building of the secondary school named after T. Sadykov, located in Ak-Tatyr village, Batken oblast.

The design and estimate documentation (DED) were developed by SARZ Project LLC. According to the contract, the duration of the retrofitting was 10 months. All planned work was completed on December 29, 2023, a couple of days ahead of schedule.

During the retrofitting, the educational process was organized in three alternative buildings - two schools and one kindergarten. The relocation of students and the organization of the educational process were carried out in accordance with the Social Impact Mitigation Plan for the temporary relocation of project affected people.

The actual cost of the work was 57,247,978.40 KGS, which is 4,687,216.90 KGS lower than the initially approved contract amount.

During the project implementation, no complaints were received from the beneficiaries, and no incidents were recorded at the construction site.







Link to material:

<https://www.facebook.com/ariskyrgyzstan/posts/pfbid0265BfXZ9WH6vSf4Xrn6zsrWismfYbfKTtjzsnhanKttwtQPqyidTbxPHUB28JaiZ2I>

Secondary school named after T. Murzaparov

Table 16. Contract data for secondary school named after T. Murzaparov

Contract name	Improving energy efficiency of secondary school building named after T. Murzaparov in village Bujum of Kara-Bulak ayil aimak of Batken rayon of Batken oblast (Lot #2)	
Contract code	IDA/SECO-HSIP-NCB-2023-1/2	
Contractor	Consortium of companies LLC Ilek Stroy Group and LLC Beishembai Kurulush	
Contract amount at the beginning		54 390 990.09 KGS
Actual contract cost		52 531 540.00 KGS
Date of work commencement	30.03.2023.	
Date of completion according to plan	31.12.2023.	
Date of completion in fact	29.12.2023.	

On March 30, 2023, contract #IDA/SECO-HSIP-NCB-2023-1/2 was signed with the consortium of Ilek Stroy Group LLC and Beishembay Kurulush LLC for the performance of works to improve the energy efficiency of the building of the secondary school named after Tajibai Murzaparov, located in Bujum village, Batken oblast. The design and estimate documentation were developed by Sarz Project LLC and provided for a set of measures to retrofit the building.

According to the terms of the contract, the duration of retrofitting was 9 months. All work was completed ahead of schedule - on December 29, 2023, which is two days ahead of the established deadline.

During the retrofitting, the educational process was organized in alternative premises determined in accordance with the Social Impact Mitigation Plan for the Temporary relocation of Project Affected People. The actual cost of the work was **52,531,540.00 KGS**, which is **1,859,450.09 KGS** lower than the initially approved amount. During the reporting period, no complaints were received from beneficiaries, and no incidents were recorded at the site.







Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0CtrUu3T9C2oQTxTE6xW6q74HuFw9Sf9kRQz8hK641ZhASGen5N2BumT8U7XLv2pl>
2. <https://www.aris.kg/news/torzhestvennye-otkrytiya-modernizirovannyh-shkol-v-batkenskom-rajone-batkenskoj-oblasti>



Ibraimova Ainura

Social care teacher of secondary school named after T. Murzaparov

"I would like to express my sincere gratitude to the ARIS for the retrofitting of our school. Before this, the building was old, and in winter it was very cold inside - both students and teachers had to conduct classes in outerwear, coats.

Now the school has become truly warm, and classes are held in comfortable conditions. The classrooms are bright, warm, if necessary, we use the ventilation system. Parents were very happy with the changes; the children are also very happy. We all continue to work in the retrofitted school with inspiration and motivation. "

Sultanova Gulnara Galbayevna

Head of teaching department of secondary school named after T. Murzaparov

"Before the retrofitting, the heating in our school left much to be desired. Now, thanks to the work carried out, we can proudly say that the school has become truly warm and bright. This winter, we went through the educational process in comfortable conditions. Despite the different opinions regarding such projects, we have only positive impressions regarding the heat supply. In winter, children began to go to school in light clothing. We, teachers, also used to be forced to wear coat and warm clothes underneath, but now everyone - both teachers and students - feel much more comfortable."



Student of 5 B class

Secondary school named after T. Murzaparov:

"I study at the secondary school named after Taajybai Murzaparov in Bujum village. Now I study in the 5 "B" class. Previously, it was cold in our school in winter, but now, after the retrofitting, the school has become warm and cozy. Previously, we sat in warm jackets during lessons, but now the classrooms are warm and light, and it has become comfortable for us to study".





Abdibaliyeva Aitilla

Parent of four students in secondary school named after T. Murzaparov:

“I have four children studying at this school. Before the retrofitting, they went to school in warm clothes because it was cold in the classrooms. Now, after the retrofitting, the classrooms have become light and warm, and all the children have started to dress lighter. On behalf of all the parents, we express our deep gratitude to the organizations that carried out the retrofitting. The children have become less sick - this year, thank God, they have not been sick at all”.

Saliyev Turataly

Teacher of geography in secondary school named after T. Murzaparov:

“Now our school has become truly wonderful. Previously, when we worked here, it was very cold in the building - we had to conduct lessons in warm clothes. The students also sat in jackets during classes, many were coughing and sick.

Since the building was retrofitted, the classrooms have become consistently warm - the temperature does not fall below 20-22 degrees despite the fact that the standard allows 18. We, teachers, now come in suits and shirts and calmly conduct lessons. Because when there are comfortable conditions, you can really teach well, without extra effort.

The lighting in the classrooms has also become excellent - the blackboards are clearly visible, the letters in the textbooks are easy to read, and the children began to study better. The retrofitting was done very well. We wish success to all ARIS employees - both those who worked on our project and those who will continue to help other schools that are still experiencing difficulties. We sincerely wish that all schools in Kyrgyzstan would be as bright and warm as ours, thanks to the ARIS project. May your work bring only good, and may you be healthy and continue to give warmth and light to our children!”



Primary school #85 Oktyabr-Tuusu

Table 17. Contract data for primary school #85 Oktyabr-Tuusu

Contract name	Improving energy efficiency of primary school building #85 Oktyabr-Tuusu in village Kara-Kolot of Iyri-Suu ayil aimak of Uzgen rayon of Osh oblast	
Contract code	IDA/SECO-HSIP-WORKS/SHOPPING-2022-1/RT1	
Contractor	LLC Capital Building Ltd.	
Contract amount at the beginning		8 087 493.33 KGS
Actual contract cost		8 068 373.33 KGS
Date of work commencement	17.03.2023.	
Date of completion according to plan	16.09.2023.	
Date of completion in fact	22.06.2023.	

On March 17, 2023, contract #IDA/SECO-HSIP-WORKS/SHOPPING-2022-1/RT1 was signed with Capital Building LTD LLC for retrofitting in the building of primary school #85 Oktyabr-Tuusu in Kara-Kolot village, Osh oblast. The total contract amount at the time of signing was 8,087,493.33 KGS.

According to the terms of the contract, the duration of the work was 6 months. However, the facility was completed ahead of schedule - on June 22, 2023, almost 3 months ahead of schedule. All work was completed in full and in accordance with the technical documentation.

The design and estimate documentation were prepared by Sarz Project LLC.

The actual contract value was **8,068,373.33 KGS**, which is **19,120.00 KGS** less than the initial amount.

During the period of retrofitting, the educational process was organized in a rented private single-family house. All measures to ensure the continuity of learning were implemented in accordance with the Social Impact Mitigation Plan for the temporary relocation of project affected people.

No complaints were received from beneficiaries during the reporting period, no incidents were recorded at the facility.





Description: Building after retrofitting



On September 14, 2023, an event was held to open the school following the retrofitting of primary school #85, named after "Oktyabr Tuusu", in Kara-Kolot village, Uzgen rayon of the Osh oblast. The school was put into operation and currently serves primary school students.

Links to materials:

1. <https://www.facebook.com/watch/?v=622613893385477>
2. <https://kabar.kg/news/v-uzgenskom-i-suzakskom-raione-otkrylis-dve-shkoly-posle-modernizatcii/>

Secondary school #74 named after A. Sherkulov

Table 18. Contract data for secondary school #74 named after A. Sherkulov

Contract name	Improving energy efficiency of secondary school building #74 named after A. Sherkulov in village Ak-Tash of Ak-Tash ayil aimak of Kara-Suu rayon of Osh oblast (Lot 1)	
Contract code	IDA/SECO-HSIP-NCB-2022-9/1	
Contractor	Consortium of companies LLC Kyrgyz SpetsStroy and CJSC Montazhnik and LLC Bektur Kelechek	
Contract amount at the beginning		34 651 903.58 KGS
Amount of completion certificate		34 070 454.74 KGS
Date of work commencement	24.03.2023	
Date of completion according to plan	23.01.2024.	
Extension	20.03.2024.	
Date of completion in fact	20.03.2024.	

On March 24, 2023, contract #IDA / SECO-HSIP-NCB-2022-9/1 was signed with a consortium of contractors: Kyrgyz SpetsStroy LLC, Montazhnik CJSC and Bektur Kelechek LLC for retrofitting in the building of secondary school #74 named after A. Sherkulov, located in Ak-Tash village, Osh oblast. The total contract amount at the time of signing was 34,651,903.58 KGS.

According to the contract, the implementation period was 10 months. However, due to the need to perform additional work not envisaged in the original documentation, the deadlines were extended. The actual completion of retrofitting activities took place on March 20, 2024; thus, the total duration was 12 months. All work was carried out in accordance with the design and estimate documentation developed by EAAS LLC.

During the retrofitting, the educational process was organized in the old building of the school. All activities to ensure the continuity of the educational process and protect the interests of students and teaching staff were implemented in accordance with the Social Impact Mitigation Plan for the temporary relocation of project affected people. During the entire period of the project implementation, no incidents were recorded at the facility. There were no complaints from beneficiaries and participants in the educational process.

Upon completion of the work, the amount according to the completion certificate was 34,070,454.74 KGS, which is 581,448.84 KGS lower than the initial contract price.





Description: Building after retrofitting



Link to material:

<https://www.facebook.com/ariskyrgyzstan/posts/pfbid02ZKM1KxQariyg8JYC5mYHdEFmqXN34DFEBEvUYptZgDUrdoPieT6SE77kqfw41sdl>

Building of Family Practice Center #1 Branch #5 in Osh city

Table 19. Contract data for FPC #1 Branch #5 in Osh city

Contract name	Improving energy efficiency of building of FPC #1 Branch #5 of Osh city (Lot 2)	
Contract code	IDA/SECO-HSIP-NCB-2022-5/2	
Contractor	Consortium of companies LLC EuroStroy Montazh and LLC Monolit Stroy	
Contract amount at the beginning		10 920 997.53 KGS
Contract amount taking into account the changes		12 589 011.52 KGS
Actual contract cost		12 390 135.00 KGS
Date of work commencement	16.02.2023.	
Date of completion according to plan	16.10.2023.	
Extension	30.11.2023.	
Date of completion in fact	30.11.2023.	

On February 16, 2023, contract #IDA/SECO-HSIP-NCB-2022-5/2 was signed with the consortium of EuroStroy Montazh LLC and Monolit Stroy LLC for the performance of retrofitting to improve the energy efficiency of the building of branch #5 of FPC #1 in Osh city. The initial contract amount was 10,920,997.53 KGS. Due to the occurrence of additional work, an amendment was made to the contract amount.

The period for completing the works, initially set at 8 months, was extended until November 30, 2023 due to the need to complete additional work. The actual duration of the project was 9.5 months. All retrofitting activities were completed in full in accordance with the design and estimate documentation developed by EAAS LLC.

During the work, the building of branch #5 of FPC #1 was completely vacated. All medical units temporarily operated on the basis of the Osh City Territorial Hospital. This measure was implemented in accordance with the Social Impact Mitigation Plan for the temporary relocation of project affected people, ensuring the continuity of medical care for the population.

The actual cost of the work was 12,390,135.00 KGS, which less than the contract amount by 198 876.52 KGS. The increase in cost is due to the inclusion of additional work required to complete the retrofitting in accordance with technical standards.

During the reporting period, no complaints were received from beneficiaries, no incidents were recorded during the work implementation.





Description: Building after retrofitting



On December 23, 2023, an opening ceremony was held with the participation of the Minister of Health of the Kyrgyz Republic, as well as representatives of ARIS, the city administration, the medical community and local residents, who expressed their support for this important project for the development of the medical sector in the city.



Links to material:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0pxSnwJVhV9EY1RrXDgGX5z3D6rvPLZLZ6Z9TLxiSG9WpDEAAQJxjngTTefajcpVml>
2. <https://www.facebook.com/watch/?v=893728162292191>
3. <https://www.facebook.com/ariskyrgyzstan/videos/1361991237809894/>
4. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid02aDmR5EgQUYn6kHyC6Po8Lg763r1UQ6iXFMqZu3sG9Zxfb3XQm6dEDDdPzoPHpr8nl>

Akmataliyeva Abiba Turdaliyeva

ENT specialist, Branch #5 FPC #1, Osh city:

My name is Akmataliyeva Abiba Turdaliyeva, I have been working as an ENT specialist in this clinic for 40 years. Our clinic has undergone a retrofitting, and one year has passed since we started working in the retrofitted building. We are very pleased with the quality of the retrofitting.

On behalf of the entire team, all employees, and on behalf of more than 30-40 thousand people served by our institution, I would like to express my deep gratitude. People who come to us constantly note how the premises have been transformed. Everyone is unanimously very pleased. The initiative, management, project specialists, builders - everyone who participated in the implementation of the retrofitting - deserve sincere gratitude.

The retrofitting was done very well: the building has become bright, modern and cozy. Now we work with pleasure, the atmosphere is inspiring. A similar clinic with such conditions, perhaps, cannot be found even in the city.

With all my heart I would like to wish that similar projects are implemented in other medical institutions of Osh. It would be great if all the city's clinics were retrofitted like ours. Then both medical workers and patients would feel better. I sincerely wish that our country would develop like our neighboring countries, so that we could live at the level of the best countries in the world. We, as a team, are completely — 100% — satisfied with the retrofitting. Everything was done with taste and according to modern standards: the painting is in an office style, the colors are well chosen, the bathrooms, sewerage, lighting — everything is at a high level. It was warm in the winter, fans were installed, the heating system works perfectly. Everything is simply at the highest level! The population is very grateful for such a retrofitting of our clinic.



Kochorova Ziyagul Mamasaliyevna

Chief nurse, Branch #5 FPC #1, Osh city:



My name is Kochorova Ziyagul Mamasaliyevna, I work as a chief nurse at this Family Doctors Group. I have been working here for 5 years. When we first started working at this clinic, the building was already dilapidated and substantially unsuitable for full-fledged activities.

Thanks to the support of the ARIS project, the building was completely transformed - it became light, spacious and clean. We received a modern and comfortable clinic, for which we are sincerely grateful. Patients are also very happy: every day we hear words of gratitude and recognition from them.

Compared to the previous conditions, now the clinic is warm, spacious, there is hot and cold water, internal sanitary facilities are equipped - before, toilets were only outside. During inspections by the SES, there were often comments, but now everything meets the requirements.

I can say with confidence that now our clinic meets all sanitary and technical standards. I would like to express my gratitude for such support with all my heart. May such initiatives in support of the people continue, and may you be rewarded for your good deeds. Thank you!



Mavlyan kyzy Aitolkun

resident of micro-district, Osh city:

“My name is Mavlyan kyzy Aitolkun, I live in a microdistrict in Osh city. Until recently, the condition of our clinic was extremely unsatisfactory - the premises were cold, the conditions were poor.

Now, after the retrofitting, the building has been transformed - it has become modern, warm, clean. The attitude of the doctors is at a high level. I sincerely express my gratitude to everyone who helped organize this retrofitting, as well as to those who directly carried it out.

Previously, in the winter, when we came to the clinic with children, we froze and experienced difficulties. Now it is warm, you can come in light clothing. The ARIS organization is a truly professional team, for which I express my deep gratitude. Let them continue to develop and expand their activities.

Those who saw the building before the retrofitting know how neglected everything was. After the retrofitting, it looks like new. I wish the ARIS project further success - this is work at the highest level! ”



Matkerimova Kanyshai Tolonbayevna

Head of treatment department, FPC #1, Branch #5, Osh city:

“I would like to express my deep gratitude to ARIS and donors for the retrofitting of our institution. Thanks to you, our clinic has been transformed — it has become bright, warm and modern. Before the retrofitting, the building was in very poor condition — dilapidated, cold. According to colleagues, it was extremely inconvenient to work here before. Fortunately, our clinic met the selection criteria, and the ARIS project included us in the program. The retrofitting was done at a high level. We have already survived two winters, and all this time the premises have maintained a stable temperature, and the employees could work in light clothing. Hot water boilers, showers, and sanitary facilities have been moved inside the building — now there is no need to go outside. Patients also express their gratitude — everyone who comes notes that the clinic is warm, light and comfortable. We wish your team further success and thank you for your contribution to improving conditions for the population. Continue to work for the benefit of people. Thank you!”



Aitbayeva Aichuryok Jyrgalbekovna

Nurse, Branch #5 FPC #1, Osh city:

"I work as a nurse at Polyclinic #5 of Family Practice Center #1 in Osh city. I have been working at this institution for many years. Previously, the building was in an extremely unsatisfactory condition: it had not been repaired for a long time, the conditions were difficult, especially in winter. There was substantially no heating - in winter, we worked wrapped in several layers of scarves and warm clothes.

Thanks to the ARIS project, a retrofitting was carried out in our polyclinic. The heating system and all internal conditions were completely updated. Now, even in winter, we can work in light clothing, without the need to dress in layers. For example, this winter I calmly worked in just a T-shirt - it became so comfortable.

I want to express my deep gratitude to everyone who provided us with such support. May your work continue to benefit people, wherever you are. Patients are also very happy: if before they were freezing even in the corridor, now they undress, take off their outerwear and sit calmly. During the day we even open the windows - it has become so warm in the rooms. Once again, thank you for your work. I wish you success and that you continue to bring good to people."

Secondary school in village Dodon

Table 20. Contract data for secondary school in village Dodon

Contract name	Improving energy efficiency of secondary school building in village Dodon of Toolyos ayil aimak of Noukat rayon of Osh oblast (Lot #2)	
Contract code	IDA/SECO-HSIP-NCB-2022-6/2	
Contractor	LLC Uniservice-ACT	
Contract amount at the beginning		15 370 300.00 KGS
Actual contract cost		15 273 464.00 KGS
Date of work commencement	27.02.2023.	
Date of completion according to plan	27.09.2023.	
Date of completion in fact	27.09.2023.	

On February 16, 2023, contract #IDA / SECO-HSIP-NCB-2022-6/2 was signed with Uniservice-ACT LLC for the performance of retrofitting in the building of the secondary school located in Dodon village, Toolyos ayil aimak, Osh oblast. The contract amount was 15,370,300.00 KGS.

Retrofitting started on February 27, 2023 and were completed strictly on time - September 27, 2023. The duration of the retrofitting was 7 months, as stipulated by the contract.

During the period of retrofitting, the educational process was organized in an alternative building envisaged by the Social Impact Mitigation Plan for the temporary relocation of project affected people, which made it possible to avoid disruptions in the educational process. During the reporting period, no complaints were received from beneficiaries, and no incidents were recorded during the work.

The actual cost of the work performed was 15,273,464.00 KGS, which is 96,836.00 KGS less than the initial contract amount.







On October 19, 2023, the opening of the building of the secondary school was held in Dodon village, Noukat rayon, Osh oblast. The event was attended by the head of the state administration - akim of the Noukat rayon Danir Imanaliyev, the head of the ayil okmotu Adylbek Eshmatov, the regional coordinator of ARIS for Osh oblast Marat Sagynbayev, invited guests, employees of the educational institution, as well as residents of the village.

Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0CM5EW4pj3Bx1BP1DeVJdKeaDGgzvTpqAsBzchZpgcyL8gJh6kcjsisu7JsF5TKrdl>
2. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid025UEhbTzXMhygSRkWYu11b1jg6Cbmn5DUrFGvQFbQoipr1pu8i3TK3iFgDWMZVemml>
3. <https://kabar.kg/news/zavershilas-modernizatciia-shkoly-dodon-v-sele-murkut-v-oshskoi-oblasti/>



Ergeshova Erkinai

Resident of village Dodon, grandmother of students of secondary school in village Dodon:

I am Ergeshova Erkinai, I live in Dodon village. Our school has undergone excellent retrofitting, it has become light and comfortable, and now my grandchildren study there - one in the 5th grade, the other in the 2nd grade. The school is warm and light, the children spent the winter in good conditions, they study in the warmth. The retrofitting was done very well. I wish success to all the teachers working in this school. The retrofitting was carried out within the framework of the ARIS project - I thank everyone who participated in this. I wish everyone health, peace in the country and prosperity in families. I want other schools and kindergartens to also undergo retrofitting and become warm and comfortable for our children.

Saparbai kyzy Adalat

parent of students of 1st and 3rd grades of secondary school in village Dodon:

I have two children at school - one in the first grade, the other in the third grade. Now the school has become good - it is light inside; the conditions have improved. It was not like that before. After the retrofitting, the premises became warm and light. Previously, children often coughed, got the flu. Now everything is better - the incidence rate has decreased. The quality of conditions has become noticeably better.



Joldosheva Cholponai Tashbolotovna

Principal of secondary school in village Dodon



The staff of the secondary school of Dodon village expresses its sincere gratitude to the ARIS organization and donors. Since the commissioning of the school, there have been no serious complaints. If earlier our teachers and students were forced to conduct classes in jackets because of the cold, now good conditions have been created, and everyone can be indoors in light clothing.

In addition, I believe that thanks to the improved conditions, a contribution has been made to improving the quality of education. Our students participate and win prizes in district and regional Olympiads. There are also students who have reached the national level in the "Intellectuals of the 21st Century" competition. All this became possible thanks to hard work, and it is this kind of work that brings results.

The recuperators work well in the school, the heating system functions stably. The most important thing is that when you enter the school building, you feel a bright, warm atmosphere. Both the staff and the students work and study with inspiration and confidence in moving forward. I express my deep gratitude to the ARIS project for creating such conditions for schoolchildren. This is a contribution not only to education, but also, albeit partially, to the economy of Kyrgyzstan, because children are our future, and I am sure that they will make a significant contribution to the development of the country.





Sharapov Abdykakar

student of 11th grade of secondary school in village Dodon:

My name is Sharapov Abdykakar, I am in the 11th grade. If we talk about school - before we sat in class in jackets, it was cold in the classrooms, it was uncomfortable to study.

Now, after the retrofitting, it has become very good - warm, light. We calmly take off our outerwear and study comfortably.

I think that the retrofitting was done well, and after the retrofitting, our interest in studying has only increased. This was very necessary and useful.

Kalmurzayeva Nazgul

teacher of chemistry of secondary school in village Dodon:

I am Kalmurzayeva Nazgul, a chemistry teacher at the secondary school in Dodon village. Last academic year, our school participated in a project to improve energy efficiency as part of the ARIS program. Thanks to this project, we had a retrofitting.

First of all, good conditions for children's health were created. The lighting became high-quality, and the retrofitting itself was done efficiently and in accordance with modern requirements. We went through the winter period without interruptions - even when there were power outages in the ayil okmotu, our school remained warm and the educational process was not interrupted.

We noticed that comfortable and clean learning conditions have a positive effect on the educational process. The quality of our students' knowledge has improved: they show higher results, participate in Olympiads and demonstrate progress in the nationwide testing results.



Secondary school in village Naiman

Table 21. Contract data for secondary school in village Naiman

Contract name	Improving energy efficiency of secondary school building in village Naiman of Naiman ayil aimak of Noukat rayon of Osh oblast (Lot #2)	
Contract code	IDA/SECO-HSIP-NCB-2022-9/2	
Contractor	LLC PGS-VEK	
Contract amount at the beginning		32 433 446.40 KGS
Contract amount taking into account of contingencies		34 518 955.87 KGS
Amount of completion certificate		34 506 954.27 KGS
Date of work commencement	22.03.2023.	
Date of completion according to plan	22.01.2024.	
Date of completion in fact	01.02.2024.	

On March 2, 2023, **contract #IDA/SECO-HSIP-NCB-2022-9/2** was signed with PGS-VEK LLC for the performance of retrofitting to improve the energy efficiency of the secondary school building in Naiman village, Noukat rayon, Osh oblast. The implementation period was 10.5 months instead of the planned 10 months, which was due to the need to perform additional types of work.

The original contract price was 32,433,446.40 KGS. During implementation, taking into account the adjustments made and the additional scope of work envisaged in **Amendment #1 to the contract dated 28 December 2023** (agreed with the World Bank), the contract amount was revised and amounted to **34,518,955.87 KGS**. The revision of the amount was due to the fact that, when the contract was concluded, a standard reserve of 10% for possible unforeseen work was not included.

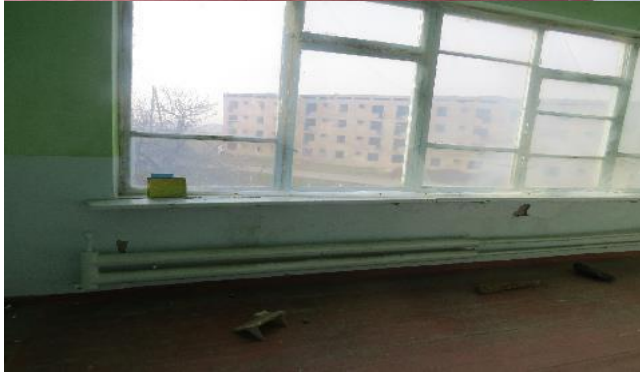
The actual cost of the work according to the Completion Certificate (CC) amounted to **34,506,954.27 KGS**, which indicates savings of **12,001.60 KGS** compared to the revised contract value.

The design and estimate documentation were developed by Sarz Project LLC.

During the work, the educational process was organized in an alternative building, determined in accordance with the Social Impact Mitigation Plan for the Temporary relocation of Project Affected People. This ensured the continuity of the educational process and minimized inconvenience for students and teachers.

During the entire period of the project implementation, there were no complaints from beneficiaries, and no incidents were recorded at the facility. The facility was commissioned in accordance with established procedures and accepted without any comments.







On February 8, 2024, in Naiman village, Noukat rayon, Osh oblast, a ceremonial opening of the secondary school building was held upon completion of energy efficiency improvement works. The event was attended by the Coordinator of Component 2, Deputy head of the state administration - akim of the Noukat rayon, regional coordinator of ARIS for the Osh oblast, representatives of contractors, employees of the educational institution, as well as residents of the village.



Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0si7KionEt8Sdup2b8pQrqpLntvkYpkoacyQfXDT1mAuyVt3VVtcTPW7fWC9fix9dl>
2. <https://www.aris.kg/news/ssh-s-najman-nookatskogo-rajona-oshskoj-oblasti-byla-modernizirovan-v-ramkakh-proekta-uluchshenie-teplosnabzheniya>

Abdraimov Bekbolsun

student of 10th grade of secondary school in village Naiman:



I am Abdraimov Bekbolsun, a 10th grade student at the Naiman village secondary school. Before the retrofitting, the conditions at the school were very difficult - the educational process took place in uncomfortable conditions, it was cold, dark, we sat in warm clothes, and lessons were difficult.

After the retrofitting, the changes became obvious. It became warm at the school, modern technologies were introduced, and the conditions for studying have significantly improved. This is really noticeable.

I would especially like to note the gym - now it has also become warm and comfortable. When we play with schoolchildren from other schools, we notice that their halls are still cold, and there are no conditions for lessons. And here, even in winter, you can play sports in a T-shirt, like in the summer.

Boronova Buaisa Kubatovna

cook of secondary school in village Naiman:

I work as a cook at this school. After the building was retrofitted, the conditions for us became much better - it became light and warm.

Previously, even when working near the stove, we had to wear warm clothes. Now you can work in light clothes - it has become much more comfortable. The heating and radiators work perfectly, everything functions as it should be.



Ismailov Kubanych

supply manager of secondary school in village Naiman:



My name is Ismailov Kubanych. I work as a supply manager at the secondary school in Naiman village. Previously, I worked as an ordinary worker. Before the retrofitting, the school had many shortcomings, the condition of the building was unsatisfactory, many things were missing.

After joining the project, a lot has changed. It has become really good - modern. Heating, passages for students, all the conditions have improved. We spent the winter in comfortable conditions, new electric radiators were installed, which turned out to be very cost-efficient.

Previously, we heated the classrooms with water, using a homemade boiler, which consumed a lot of electricity. Now everything is different - the new radiators are not only effective, but also save resources. Residents of the village are even interested in where such radiators are made, and how reliable they are.

They have been working for almost two years now - we are pleased with the result. I myself recommend them to others and say with confidence that this is a good solution.

Khalbayeva Kantayim Tajimamatovna

teacher of history of secondary school in village Naiman:

Good afternoon! My name is Khalbayeva Kantayim Tajimamatovna, I am a history teacher at the secondary school in Naiman village. Now I am already of retirement age, but due to a shortage of personnel, I continue to work at the school.

As far as I remember, in 2022 or 2023, our administration applied to participate in the ARIS project, and the project was approved. ARIS representatives held a meeting with the teaching staff, where they told us what the school would be like after a retrofitting. They said that even the roof would be replaced. Then I sat and imagined all this, and jokingly asked: "When will this fabulous transformation be completed?" - I was told that in 2024.

I joked: "I wish it would happen sooner, I am already of retirement age, I want to work in a warm school." And you know what? Everything came true! Previously, we, teachers, insulated the school ourselves - we covered the windows with film, insulated the walls, and wore warm clothes to class. But now everything has changed - exactly as I imagined.

The most important thing is that the school has become truly warm. The retrofitting was done very well. Previously, we painted the walls blue, and now, compared to the current light classrooms, it seems gloomy. Now the school is light, new windows have been installed, and even during the heating season, some teachers open the windows - it is so warm.

We recently had a seminar on mathematics. We, teachers, participate in various seminars, but nowhere do we sit in such light clothes as we do. Usually, we are in coats and scarves. We even hung hangers for guests and asked them to take off their outerwear - at first, no one believed us. Then it became so warm that teachers from other schools took off their coats right during classes and held them in their hands. Everyone was surprised and said that they had never seen such a warm school.

My children have already graduated the school, and now my grandchildren are studying here. They used to study in Osh. When their parents, grandparents came to see the school, they were amazed - they said that even in Osh city there is no such warm and bright school. The children wear light clothes - like in the summer.

We express our deep gratitude to ARIS for the retrofitting they carried out. At the opening ceremony, I even wrote a poem, unfortunately, I don't remember it by heart now.

Schools are also being built in other villages, for example, in Madaniyat, but even new buildings cannot compare in terms of warmth with our school. I would also like to note that similar repairs were carried out in the school in Dodon village. Their school is one-story, ours is two-story, but the conditions are now comparable.

We believe that such projects are very necessary. Moreover, they encourage us to think about insulating our own homes. Heat insulation of the walls, quality materials - all this makes the building truly comfortable. We are very grateful for this retrofitting and want such projects to continue.



General Medical Practice Center for Aravan rayon

Table 22. Contract data for GMPC of Aravan rayon

Contract name	Improving energy efficiency of building of the General Medical Practice Center for Aravan rayon in village Aravan of Allya-Anarov ayil aimak of Osh oblast (Lot #1)	
Contract code	IDA/SECO-HSIP-NCB-2022-8/1	
Contractor	Consortium of companies LLC SPP Oshkoopkurulush and OJSC MSPMK-2	
Contract amount at the beginning		18 830 882.00 KGS
Actual contract cost		17 634 088.42 KGS
Date of work commencement	02.03.2023.	
Date of completion according to plan	22.09.2023.	
Date of completion in fact	19.09.2023.	

On March 2, 2023, contract #IDA / SECO-HSIP-NCB-2022-8/1 was signed with the consortium of LLC SPP Oshkoopkurulush and OJSC MSPMK-2 for the performance of retrofitting to improve the energy efficiency of the building of the General Medical Practice Center (GMPC) of the Aravan rayon in Aravan village, Osh oblast. The total contract amount was 18,830,882.00 KGS.

According to the terms of the contract, the duration of the retrofitting was 6 months. All activities were completed ahead of schedule - on September 19, 2023, three days ahead of the deadline.

During the period of execution of the works, the GMPC building was completely vacated. Medical units were temporarily moved to other buildings and buildings, ensuring the continuity of the provision of medical services to the population. The relocation and organization of temporary work of the institution were carried out in accordance with the provisions of the Social Impact Mitigation Plan for the temporary relocation of project affected people. The actual cost of the project implementation was 17,634,088.42 KGS, which is 1,196,793.58 KGS lower than the amount specified in the contract.







On October 20, 2023, in Aravan village, Aravan rayon, Osh oblast, a grand opening ceremony of the retrofitted building of the General Medical Practice Center of Aravan rayon was held. The event was attended by Deputy Plenipotentiary Representative of the President in Osh oblast Ernis Toltoev, Deputy Head of the State Administration - Akim of Aravan rayon Bakytbek Osmonov, Coordinator of the HSIP Urmat Bidinov, Regional Coordinator of ARIS for Osh oblast Marat Sagynbayev, invited guests and employees of the health institution.



Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0b3pVYQ2JYivUQMrEfwqWGZ7P4sQ2k8wgstFmDp8dMRgXd5jdxxaRSyHSCPkUbxAl>
2. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid02JznzSFpA1WHTU4njmgUJ3QQ7S1YEe5Zj1rZzK3MMvVQeHoVoQwkFD6fWdMevV97Tl>
3. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid032QScMY2NP3Jhs7Xkt6NEDP2UccAn5JiNdh7aj5uA1imEHwiA7xAR6VGwDHtcujpVl>
4. <https://www.youtube.com/watch?v=kCJkuZhHMjI>
5. <https://vesti.kg/obshchestvo/item/116370-v-aravane-posle-remonta-torzhestvenno-otkryli-tsop-foto.html>

General Medical Practice Center for Alai rayon

Table 23. Contract data for GMPC of Alai rayon

Contract name	Improving energy efficiency of building of the General Medical Practice Center for Alai rayon in village Gulcho of Gulcho ayil aimak of Osh oblast (Lot #1)	
Contract code	IDA/SECO-HSIP-NCB-2023/1-/RT1	
Contractor	LLC SPP Oshkoopkurulush	
Contract amount at the beginning		25 995 456.00 KGS
Actual contract cost		25 645 429.31 KGS
Date of work commencement	23.05.2023.	
Date of completion according to plan	22.12.2023.	
Date of completion in fact	22.12.2023.	

On May 22, 2023, contract #IDA/SECO-HSIP-NCB-2023/1-/RT1 was signed with Oshkoopkurulush LLC for the performance of retrofitting to improve the energy efficiency of the building of the General Medical Practice Center (GMPC) of the Alay rayon, located in Gulcho village, Osh oblast. According to the terms of the contract, the duration of the retrofitting was 7 months. All activities were completed according to the schedule - December 22, 2023. The works were completed in full and in accordance with the technical standards envisaged in the design and estimate documentation.

During the project implementation period, the building of the General Medical Practice Center was completely vacated. All medical departments temporarily operated in other medical buildings, which ensured the uninterrupted provision of medical services to the population. The organization of the relocation and operation of the institution during the retrofitting was envisaged in the Social Impact Mitigation Plan for the temporary relocation of project affected people. During the reporting period, no complaints were received from beneficiaries, and no incidents were recorded during the performance of the work. The actual cost of the work was 25,645,429.31 KGS, which is 350,026.69 KGS less than the initially approved contract amount.







On December 18, 2023, a grand opening was held at the Alay rayon General Medical Practice Center in Osh oblast upon completion of a comprehensive retrofitting of the building as part of the HSIP. The ceremony was attended by Project Coordinator U. Bidinov, Akim of the Alay rayon Azamat Kojomambetov, representatives of local authorities, employees of the institution and village residents. The retrofitted building, which has undergone energy efficiency improvement, is important for providing medical services to the local population



Links to materials:

1. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid0MxvES4NRJx1Ra8kPHvHBZwBnVLuaePg7sT9R6AS6o86pvJyxiiwGkLNcrh47YsTtI>
2. <https://www.facebook.com/watch/?v=791177056355841>
3. <https://www.facebook.com/ariskyrgyzstan/posts/pfbid02vWccBBhnap1xAP6ortjRHHk5pFyWc8F2AWmGoGiDie5y6trNSjJeptqV21593kvdI>

Gymnasium school #7 named after T. Tursunbayeva	√	√	√	√	√	√	√	√
GMPC for Ak-Talaa rayon	√	√	√	√	√	√	√	√
Round 3								
Secondary school named after T. Sadykov	√	√	√	√	√ (10 cm)	√	√	√
Secondary school named after Tajibai Murzaparov	√	√	√	√	√ (10 cm)	√	√	√
Primary school #85 Oktyabr-Tuusu	√	√	√	√	√	√	√	√
Secondary school #74 named after A. Sherkulov	√	√	√	√	√	√	√	√
FPC #1 Branch #5	√	√	√	√	√	√	√	√
Secondary school in village Dodon	√	√	√	√	√	√	√	√
Secondary school in village Naiman	√	√	√	√	√ (10 cm)	√	√	√
GMPC for Aravan rayon	√	√	√	√	√	√	√	√
GMPC for Alai rayon	√	√	√	√	√	√	√	√

Measures Taken to Improve the Seismicity of the Building

The overall objective of the partial retrofitting option was to ensure the minimum level of safety required by law in terms of the ultimate safety conditions of people and the estimated number in the building following the earthquake. Given the task at hand, the following measures were taken:

Facility	Complete replacement of the existing roof (roof covering, wooden frame).	Replacement of roof covering with steel sheets with partial replacement of wooden roofing elements.	New timber braces, replacement of diagonal braces in the longitudinal beams of the grid and improvement of connections between existing timber floor beams and reinforced concrete beams using bolted connections.	Reinforcing of frame(s); Reinforcing of columns and beams.	Reinforcing of walls (partial, in places of window and door blocks).	Installation of snow guards, gutters, and water inlet pipes along the wall along the entire perimeter.
Round 1						
Secondary school in village Sretenka	-	√	√	-	√	√
Secondary school #82 in residential area Ala-Too	-	√	√	-	√	√
Secondary school named after A. Soltonov	-	√	√	√	√	√
Secondary school named after R. Shukurbekov	-	-	√	√	-	√
Kindergarten #5 Altyn-Balalyk	-	√	√	-	-	√
GMPC of Panfilov rayon	-	√	√	√	-	√
Round 2						
Secondary school #15 named after A. Mukanov	-	√	√	√	-	√
Secondary school #89 named after P. Jumanazarov	-	√	√	-	-	√
Secondary school #1 named after T. Moidunov	-	√	√	-	-	√
Kindergarten Janyl-Myrza	-	√	√	-	√	√
Gymnasium school #7 named after T. Tursunbayeva	-	√	√	-	√	√
GMPC of Ak-Talaa rayon	-	√	√	-	√	√
Round 3						

Secondary school named after T. Sadykov	-	√	√	√	√	√
Secondary school named after Tajibai Murzaparov	-	√	√	√	√	√
Primary school #85 Oktyabr-Tuusu	-	√	-	-	√	√
Secondary school #74 named after A. Sherkulov	-	√	√	-	-	√
FPC #1 Branch #5	-	-	-	-	√	√
Secondary school in village Dodon	√	-	√	√	√	√
Secondary school in village Naiman	√	-	√	-	√	√
GMPC of Aravan rayon	-	√	√	-	√	√
GMPC of Alai rayon	-	√	-	-	√	√

Implementation results

List of all facilities

Taking into account the abovementioned activities, the retrofitting of 21 facilities was successfully completed.

Table 24. Facilities of Round 1

#	Facility	Completion certificate is issued
1	Secondary school in village Sretenka of Sretenka AA Moskva rayon of Chui oblast	06.12.2021
2	Secondary school named after A. Soltonov in village Kalba of Kalba AA of Talas rayon of Talas oblast	22.04.2022
3	Secondary school #82 in residential area Ala-Too of Bishkek city of Chui oblast	28.04.2022.
4	Secondary school named after R. Shukurbekov in village Maimak of Maimak AA of Kara-Buura rayon of Talas oblast	23.05.2022.
5	Kindergarten #5 Altyn-Balalyk in village Novopokrovka of Logvinenko AA of Issyk-Ata rayon of Chui oblast	02.11.2022
6	GMPC for Panfilov rayon in Chui oblast	31.07.2024

Table 25. Facilities of Round 2

#	Facility	Completion certificate is issued
1	Secondary school #15 named after A. Mukanov in village Baizak of Santash AA Tyup rayon of Issyk-Kul oblast	27.03.2023
2	Kindergarten Janyl-Myrza in village Kazarman of Toguz-Toro AA of Toguz-Toro rayon of Jalal-Abad oblast	13.05.2023
3	Secondary school #89 named after P. Jumanazarov in village Chymchyk-Jar of Yrys AA of Suzak rayon of Jalal-Abad oblast	16.08.2023
4	Secondary school #1 named after T. Moidunov in village Kazarman of Kargalyk AA of Toguz-Toro rayon of Jalal-Abad oblast	14.12.2023
5	GMPC for Ak-Talaa rayon in village Bayetov of Bayetov AA of Ak-Talaa rayon of Naryn oblast	20.02.2024
6	Gymnasium school #7 named after T. Tursunbayeva in village Chayek of Chayek AA of Jungal rayon of Naryn oblast	14.10.2024

Table 26. Facilities of Round 3

#	Facility	Completion certificate is issued
1	Secondary school named after T. Sadykov in village Ak-Tatyr of Ak-Tatyr AA of Batken rayon, Batken oblast	01.02.2024
2	Secondary school named after Tajibai Murzaparov in village Bujum of Kara-Bulak AA of Batken rayon of Batken oblast	01.02.2024
3	Primary school #85 Oktyabr-Tuusu in village Kara-Kolot, Iyri-Suu AA of Uzgen rayon of Osh oblast	26.06.2023
4	Secondary school #74 named after A. Sherkulov in village Ak-Tash of Ak-Tash AA of Kara-Suu rayon, Osh oblast	10.06.2024

5	Building of Family Practice Center #1 Branch #5 in Osh city	04.12.2023
6	Secondary school in village Dodon of Toolyos AA of Noukat rayon, Osh oblast	29.09.2023
7	Secondary school in village Naiman of Naiman AA of Noukat rayon of Osh oblast	01.02.2024
8	GMPC for Aravan rayon in village Aravan of Allya-Anarov AA of Aravan rayon of Osh oblast	21.09.2023
9	GMPC for Alai rayon in village Gulcho, Gulcho AA of Alai rayon of Osh oblast	28.12.2023

Typology of facilities

Table 27. Typology of facilities

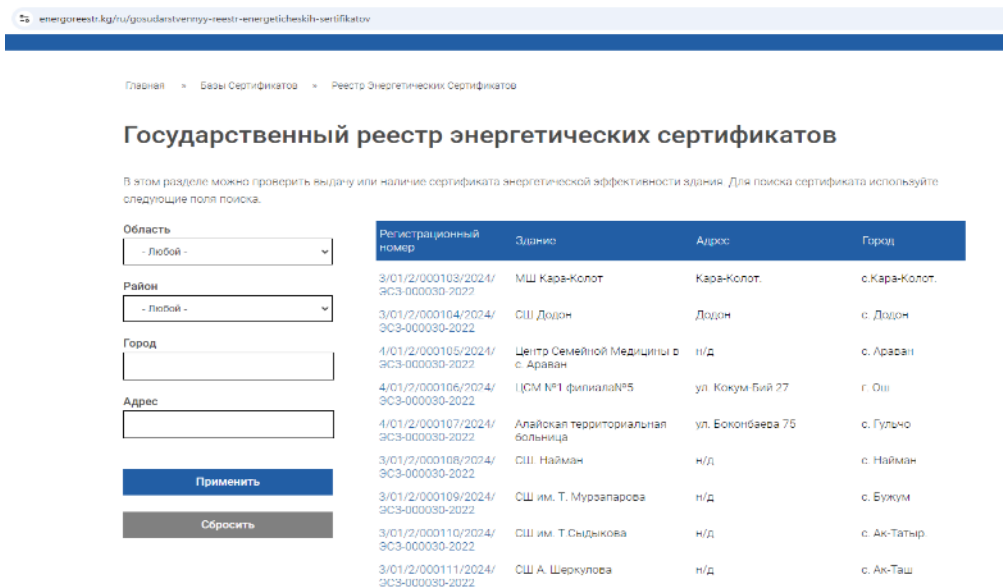
Type of institution	Quantity	Description
Comprehensive schools	14	Primary, secondary schools as well as gymnasium schools
Health institutions	5	FPC, General Medical Practice Centers
Preschool institutions	2	Kindergartens

Buildings certification following the retrofitting

In accordance with the Law of the Kyrgyz Republic "On Energy Efficiency of Buildings", new buildings, as well as buildings that have undergone energy retrofitting, shall meet the established minimum requirements for their energy efficiency. These minimum requirements are approved by the Government of the Kyrgyz Republic and are subject to revision at least once every 10 years.

According to the Resolution of the Government of the Kyrgyz Republic dated August 2, 2012 #531 "On approval of the Regulation on procedure for energy certification of buildings", the minimum requirements for the energy efficiency of buildings correspond to the upper limit of class "B" of energy efficiency. These requirements are differentiated depending on the functional purpose of the building and the climatic conditions of the construction region.

The energy certification procedure is carried out by certified specialists. Such specialists calculate the energy efficiency of the building in accordance with the approved Calculation Methodology, following which they establish the corresponding energy efficiency class, issue an energy certificate and register it in the Single State Register of Energy Certificates of Buildings. All buildings retrofitted within the framework of the implementation of the Heat Supply Improvement Project (HSIP) comply with these requirements. They have undergone the official energy certification procedure, received **class "B" certificates** and are included in the **Single State Register of Energy Certificates of Buildings of the Kyrgyz Republic**, which confirms compliance with standards and the high level of energy efficiency of these facilities.



Picture SEQ Рисунок * ARABIC 3. Website of State Register

By following link to the website of the state registry, you can obtain information on retrofitted facilities within the framework of HSIP Component 2: <https://energoreestr.kg/ru/gosudarstvennyy-reestr-energeticheskikh-sertifikatov>

Completion of defects liability period for retrofitted facilities

In accordance with the established procedures and requirements of the concluded contracts, all buildings that have undergone retrofitting are subject to a defect (warranty) period of 12 months from the date of completion of retrofitting and receipt of the corresponding certificate of completion of retrofitting.

As of the current date, 18 of the 21 retrofitted facilities have successfully completed the defects liability period. For these facilities, certificates on expiration of the warranty period were issued, signed by the heads of local self-governments (as Clients) and representatives of independent engineering supervision. These certificates confirm the absence of claims against the work performed by contractors. Also, the project engineers issued official certificates on completion of the retrofitting defects liability period.

The remaining 3 facilities continue to be within the established warranty period.

Table 28. Facilities that have not yet submitted a certificate of completion of the defects liability period

#	Facility name	Date of completion certificate issuance	Defects liability period completion
1	Secondary school #74 named after A. Sherkulov	27.03.2024	27.03.2025
2	GMPC for Panfilov rayon	31.07.2024	31.07.2025
3	Gymnasium school #7 named after T. Tursunbayeva	14.10.2024	14.10.2025

Consulting services

Energy audit

Round 1

In accordance with the approved steps for the implementation of Component 2 of the Heat Supply Improvement Project (HSIP), reflected in the Operational Manual, the World Bank organized the energy audit and seismic assessment for the buildings selected in the first round. Since ARIS did not have available funding for these types of work at that time, the World Bank assumed full responsibility for the procurement processes and the selection of a consulting company.

As a result, a contract was signed with the Consortium of Unison Consulting LLC and RINA Consulting S.p.A. All procurement procedures and audit support were carried out directly by the World Bank in accordance with its internal regulations and at the expense of the Trust Fund provided by SECO. ARIS, in its turn, took part in the review and no objection of audit results, and was subsequently responsible for hiring and coordinating the work of consulting companies to develop design documentation, prepare technical sections of bidding documentation and supervise retrofitting.

Table 29. Detailed energy and seismic audits of selected public buildings in Talas, Chui oblasts, as well as in Bishkek city (Round 1)

Consultant name	Competition advertisement	# and date of contract	Submission of reports	Comments
Consortium LLC Unison Consulting and RINA Consulting S.p.A.			Development and organization of trainings on energy audits and developing energy efficiency measures	Training was held on March 16-17, 2021
			Organization of second training	Training was held from October 3 to November 22, 2022
			Participation in project completion assessment for 2 buildings	Reports were submitted to the WB

Round 2

Table 30: Detailed energy and seismic audits of selected seven public buildings in Jalal-Abad, Naryn and Issyk-Kul oblasts (Round 2)

Consultant name	Competition advertisement	# and date of contract	Submission of reports	Comments
Consortium LLC Unison Consulting and RINA Consulting S.p.A.	03.12.2021	IDA-HSIP-CQS-2020-2 16.09.2020	Report on energy audit 09.12.2020	The reports were submitted in December 2020. Following comments from the WB, the final report was adopted on 03.03.2021
			Seismic audit report 15 weeks from the date of signing the contract 12/30/2020.	The reports were submitted in December 2020. Following comments from the WB, the final report was adopted on 16.04.2021
			Comments on preliminary design and bidding documents	Comments received for 6 buildings
			Development and organization of trainings on energy audits and developing energy efficiency measures	Training was held on 22.11. 2022.
			Organization of second training	Training was held on 28.11.2023

			Participation in project completion assessment for 2 buildings	From 01.11.2023 to 31.03.2024
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Round 3

Table 31: Detailed energy and seismic audits of selected 9 buildings in Batken and Osh oblasts as well as in Osh city (Round 3)

Consultant name	Competition advertisement	# and date of contract	Submission of reports	Comments
Consortium LLC Unison Consulting and RINA Consulting S.p.A.	01.10.2021	SECO-HSIP-CQS-2021-1 25.03.2022	Inception report 20.04.2022	
			Report on energy audit 08.07.2022.	Reports submitted in June 2022. Final reports accepted 04.07.2022
			Seismic audit report 15 weeks from the date of signing the contract 15.07.2022.	Reports submitted in June 2022. Final reports accepted 04.07.2022
			Comments on preliminary design and bidding documents	Comments received for 6 buildings
			Development and organization of trainings on energy audits and developing energy efficiency measures	Training was held on 29.09.2023
			Organization of second training	Training was held on 30.09.2023
			Participation in project completion assessment for 2 buildings	From 01.11.2023 to 31.03.2024

DED preparation and designer supervision

Round 1

Consultant: LLC Synch

Table 32: Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of six public buildings in Round 1

Buildings name	Competition advertisement	# and date of contract	Submission of reports	Comments
Preparation of design and estimate documentation				
Secondary school #82, in residential area Ala-Too	06.11.2019	IDA-HSIP-CQS-2019-1 08.05.2020	08.11.2020	Completion certificate is signed on 02.11.2020
Secondary school in village Sretenka			08.11.2020	Completion certificate is signed on 02.11.2020
Secondary school named after A. Soltonov, in village Kalba			Deadline: under contract 08.11.2020. after extension 23.03.2021.	The completion certificate was signed on 19.02.2021. Contract extension due to the pandemic, restrictions on movement around the republic were introduced
Secondary school named after R. Shukurbekov, in village Maimak			Deadline: under contract 08.11.2020 after extension 23.03.2021	The completion certificate was signed on 31.03.2021 Contract extension due to the pandemic, restrictions on movement around the republic were introduced

Kindergarten Kolokolchik, in village Belovodskoye			Deadline: under contract 08.11.2020. after extension 23.03.2021.	The completion certificate was signed on 26.03.2021. Contract extension due to the pandemic, restrictions on movement around the republic were introduced
Kindergarten Altyn Balalyk, in village Novopokrovka			31.12.2021	Completion certificate is signed on 19.11.2021
GMPC for Panfilov rayon, in village Panfilovka			Deadline: under contract 08.11.2020. after extension 25.03.2022	Completion certificate is signed on 25.01.2022. No objection for development of the DED was received from the World Bank in November 2020. The DED was submitted to the World Bank for no objection on July 1, 2021, and final no objection was received on September 13, 2021. It was submitted for state examination on September 17, 2021, and the opinion was received on December 16, 2021.

Table 33. Designer supervision of Round 1 subprojects

Buildings name	Submission of reports	Comments
Secondary school #82, in residential area Ala-Too	Monthly with the start of retrofitting at the facilities	Retrofitting started in June 2021. Reports submitted from June 2021 to April 2022.
Secondary school in village Sretenka		Retrofitting started in May 2021. Reports submitted from May to December 2021
Secondary school named after A. Soltonov, in village Kalba		Retrofitting started in June 2021. Reports submitted from June 2021 to April 2022
Secondary school named after R. Shukurbekov, in village Maimak		Retrofitting started in August 2021. Reports submitted from August 2021 to May 2022
Kindergarten Altyn Balalyk, in village Novopokrovka		Retrofitting started in February 2022. Reports submitted from February to October 2022
GMPC for Panfilov rayon, in village Panfilovka		Retrofitting started in August 2022. Reports submitted from August 2022 to March 2024

Round 2

Consultant: LLC EAAS

Table 34: Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of 6 public buildings in Round 2

Buildings name	Competition advertisement	# and date of contract	Submission of reports	Comments
Preparation of design and estimate documentation				
Secondary school named after A. Mukanov in village Baizak	May 21, 2021	#IDA-HSIP-CQS-2021-1 September 29, 2021	07.01.2022	The completion certificate was signed on 02.03.2022. The delay in deadlines was due to the New Year holidays and the illness of the electrical engineer
Gymnasium school named after T. Tursunbayeva, in village Chayek			14.01.2022	The completion certificate was signed on 22.07.2022. The preparation of the design and estimate documentation has been moved to the last phase so that the advertisement for retrofitting is one package with GMPC of the Ak-Talaa rayon

Secondary school named after P. Jumanazarov, in village Chymchyk-Jar			25.03.2022	The completion certificate was signed on 24.02.2022. Due to the relocation of the gymnasium school to the Chayek village at the end, it was provided ahead of schedule
Secondary school named after T. Moidunov, in village Kazarman			10.06.2022	The completion certificate was signed on 11.05.2022. Due to the relocation of the gymnasium school to the Chayek village at the end, it was provided ahead of schedule
Kindergarten Janyl-Myrza, in village Kazarman			17.06.2022	The completion certificate was signed on 28.04.2022. Due to the relocation of the gymnasium school to the Chayek village at the end, it was provided ahead of schedule
GMPC for Ak-Talaa rayon, in village Bayetovo			24.06.2022	The completion certificate was signed on 22.07.2022. Due to special requirements for hospitals, it took the consultant more than a month to develop the ventilation and electrical parts of the DED

Table 35. Designer supervision of Round 2 subprojects

Buildings name	Submission of reports	Comments
Secondary school named after A. Mukanov in village Baizak	Monthly with the start of retrofitting at the facilities	Retrofitting started in May 2022. Reports submitted from May 2022 to March 2023
Secondary school named after P. Jumanazarov, in village Chymchyk-Jar		Retrofitting started in July 2022. Reports submitted from July 2022 to July 2023
GMPC for Ak-Talaa rayon, in village Bayetovo		Retrofitting started in October 2022 Reports submitted from October 2022 to January 2024
Gymnasium school #7 named after T. Tursunbayeva, in village Chayek		Retrofitting started in October 2022 Reports submitted from October 2022 to May 2024
Secondary school named after T. Moidunov, in village Kazarman		Retrofitting started in September 2022. Reports submitted from October 2022 to November 2023
Kindergarten Janyl-Myrza, in village Kazarman		Retrofitting started in July 2022. Reports submitted from August 2022 to April 2023

Round 3

Consultant: LLC EAAS and LLC SARZ Project

Table 36. Provision of consulting services for preparation of design and estimate documentation for improving the energy efficiency and seismic safety of 9 public buildings in Round 3

Buildings name	Competition advertisement	# and date of contract	Submission of reports	Comments
Preparation of design and estimate documentation by LLC SARZ Project				
Secondary school named after T. Sadykov in village Ak-Tatyr	June 22, 2022	#SECO-HSIP-CQS-2022-1/1/ad1 dated August 5, 2022	05.11.2022	The completion certificate was signed on 18.11.2022
Secondary school named after T. Murzaparov, in village Bujum			05.11.2022	The completion certificate was signed on 18.11.2022
Primary school #85 Oktyabr-Tuusu, in village Kara-Kolot			05.11.2022	The completion certificate was signed on 18.11.2022

Secondary school named after Dodon, in village Dodon			30.11.2022	The completion certificate was signed on 24.11.2022
Secondary school named after Naiman, in village Naiman			30.11.2022	The completion certificate was signed on 24.11.2022
Preparation of design and estimate documentation by LLC EAAS				
Secondary school #74 named after A. Sherkulov, in village Ak-Tash	June 28, 2022	#SECO-HSIP-CQS-2022-1/2/ad1 dated August 15, 2022	15.11.2022	The bidding for the works was advertised on 22.11.2022, and the last completion certificate was signed on 26.12.2022, since the official letter from the state environmental expert examination was received later.
Building of Family Practice Center #1 Branch #5 in Osh city			15.11.2022	The bidding for the works was advertised on 22.11.2022, and the last completion certificate was signed on 26.12.2022, since the official letter from the state environmental expert examination was received later.
FPC GMPC for Aravan rayon, in village Aravan			15.11.2022	The last completion certificate was signed on 12/26/2022, since the official letter from the state environmental expert examination was received later.
GMPC for Alai rayon, in village Gulcha			15.11.2022	The last completion certificate was signed on 12/26/2022, since the official one from the state environmental expert examination was received later.

Table 37. Designer supervision of Round 3 subprojects

Buildings name	Submission of reports	Comments
Primary school #85 Oktyabr-Tuusu	Monthly with the start of retrofitting at the facilities	Retrofitting started in March 2023. Reports submitted from works commencement till May 2023
Secondary school named after Dodon, in village Dodon		Retrofitting started in February 2023. Reports submitted from works commencement till September 2023
Family Practice Center #1 Branch #5 in Osh city		Retrofitting started in March 2023. Reports submitted from works commencement till November 2023
GMPC for Aravan rayon		Retrofitting started in March 2023. Reports submitted from works commencement till September 2023
GMPC for Alai rayon		Retrofitting started in May 2023. Reports submitted from works commencement till December 2024
Secondary school named after T. Sadykov in village Ak-Tatyr		Retrofitting started in February 2023. Reports submitted from works commencement till January 2024
Secondary school named after T. Murzaparov, in village Bujum		Retrofitting started in April 2023 Reports submitted from works commencement till January 2024
Secondary school named after Naiman, in village Naiman		Retrofitting started in March 2023. Reports submitted from works commencement till January 2024
Secondary school #74 named after A. Sherkulov		Retrofitting started in March 2023. Reports submitted from works commencement till March 2024

Engineering supervision

Comprehensive engineering supervision was organized. The work was carried out by specialized consultants selected on a competitive basis. The objective of supervision was to ensure the quality of retrofitting, compliance with design solutions and achievement of energy efficiency targets.

Round 1

Table 38. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 6 buildings of the Round 1

Contract and consultant name	Contract commencement date	Contract completion date	Reports submission	Comments
#IDA-HSIP-SSS-2024-1 Consortium LLC Consulting company Expertiza and technicheski nadzor and Sweco GmbH	01.02.2021	31.12.2024	Submitting the updated information on energy efficiency improvement and building retrofitting	Certificates of compliance of buildings with energy efficiency class "B" have been received
			Monitoring and verification report	Report submitted
			Capacity building and training report	Report submitted
			Completion reports	Report submitted

Round 2

Table 39. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 6 buildings of the Round 2

Contract and consultant name	Contract commencement date	Contract completion date	Reports submission	Comments
#SECO-HSIP-CQS-2021-2 LLC Consulting company Expertiza and technicheski nadzor	25.03.2022	31.12.2024	Submitting the updated information on energy efficiency improvement and building retrofitting	Certificates of compliance of buildings with energy efficiency class "B" have been received
			Monitoring and verification report	Report submitted
			Capacity building and training report	Report submitted

Round 3

Table 40. Supervision of civil works for implementation of energy efficiency and seismic retrofitting measures in 9 buildings of the Round 3

Contract and consultant name	Contract commencement date	Contract completion date	Reports submission	Comments
SECO-HSIP-CQS-2022-2 LLC Encon	02.06.2023	31.12.2024	Submitting the updated information on energy efficiency improvement and building retrofitting	Certificates of compliance of buildings with energy efficiency class "B" have been received
			Monitoring and verification report	Report submitted
			Capacity building and training report	Report submitted

Activity 2: Capacity building on energy efficiency

The event aimed to strengthen local capacity and raise awareness in energy efficiency. Support covered the following areas:

- **Training of local firms:** Capacity building activities were organized for energy audit companies, design and construction organizations, and other energy service providers to improve their technical skills for the preparation and implementation of energy efficiency projects. The training also included an analysis of lessons learned from the initial phase of the Project, including those related to the quality of designs. To facilitate market development, targeted training and technical support were provided to potential service providers prior to the start of the Project, financed by the ESMAP Trust Fund. The first training session was conducted by the World Bank team in May 2018. Additional trainings were organized by ARIS annually with the support of an international energy efficiency expert provided by the World Bank.
- **Energy Efficiency Information Campaign:** Targeted information campaigns were conducted for project beneficiaries, local communities and other stakeholders to increase awareness and understanding of energy efficiency. In addition, the Project results were documented and disseminated to demonstrate the benefits of energy efficiency, including its potential to address winter energy shortages.
- **Support for implementation of the Energy Efficiency Roadmap:** Follow-up support was provided for the implementation of the Roadmap for Improving Energy Efficiency in Public Buildings, developed by the Government of the Kyrgyz Republic with the participation of the World Bank and with financial support from ESMAP in 2017–2018.

Trainings for local firms:

- ✓ Within the framework of Component 2 of the Heat Supply Improvement Project, **the first training session was organized with the support of the World Bank on May 22–23, 2018.**

To develop potential in energy efficiency and audit, a **training was held on topic “Energy efficiency and energy audit in buildings: basics and procedure for conducting”**. The aim of the event was to improve the professional skills of stakeholders in energy audit, design, implementation and supervision of energy efficiency measures and the introduction of RES (renewable energy sources)

As part of the training program, participants were presented with:

- objectives and methods of conducting energy audits;
- regulatory framework for energy efficiency;
- principles of development and feasibility study of projects;
- approaches to quality control, engineering supervision and project management



Particular attention was paid to the review of modern energy efficient solutions available on the local market, applicable for the retrofitting of public buildings. **The practical part of the training** included a visit to facilities using innovative EE/RES technologies, which allowed the participants to become familiar with the results of implementing such solutions in practice.

- ✓ **On February 20, 2020**, within the framework of the Heat Supply Improvement Project, with the assistance of the World Bank, a **specialized training was held for the ARIS engineering staff** on topic: **"Improving the**



energy efficiency of public buildings in the Kyrgyz

Republic". The training was organized with the participation of international expert Rainer Behnke and Unison Group specialists.

The objectives of the training were to deepen the knowledge and practical skills of ARIS engineers in energy audit, development of solutions to improve energy efficiency, as well as familiarization with international standards and best practices in this area.

Key topics covered during the training:

- General principles of energy efficiency, rationale and structure of activities.
- Key elements of the Energy Efficiency Roadmap: building inventory, potential analysis, regulatory framework and recommendations for improving conditions.
- Mechanisms for implementing the HSIP: selection of buildings and energy audits, analysis of technical and social aspects, lessons learned from the implementation of the first phase, planning monitoring and results evaluation.



The training was attended by **20 ARIS employees**, including **6 women**. Following the event, the participants expressed interest in continuing the training and sent a request for **additional practical training with a visit to the site**. The objective of the additional training was to obtain practical skills in **heat engineering calculations** and interpretation of energy audit results. However, due to the introduction of restrictions due to the COVID-19 pandemic, the planned on-site training was postponed indefinitely.

- ✓ According to the Terms of Reference, the consulting company that conducted the energy and seismic audit (specialists from the consortium of companies **Unison Consulting LLC and RINA Consulting SpA**) was also required to organize two types of training events to increase energy efficiency capacity. In particular,

specialized trainings were held for contractors and designers involved in implementation of HSIP Component 2. In addition, training sessions were held separately for representatives of building administrations for the retrofitted facilities in each round.

The participants in the events included representatives of key government agencies, designers, ARIS engineers, engineering supervisors, as well as project direct beneficiaries — representatives of local government bodies and administrations of buildings selected for retrofitting.

During the training sessions, experts presented information on the regulatory framework of the Kyrgyz Republic in energy efficiency, methods and tools for energy and seismic audits of public buildings, and familiarized participants with modern renewable energy sources and green technologies. The training program included both a **theoretical part** and a **practical field trip** to a retrofitting site, which allowed participants to see the measures used to improve energy efficiency in practice.

These activities were aimed at developing skills in the operation and maintenance of the retrofitted facilities in order to ensure the sustainable operation of the systems upon completion of retrofitting. **Information on training courses conducted is provided in the table below.**

The training sessions helped strengthen cooperation between designers and building administrations, raised awareness of the importance of implementing energy-efficient technologies, and provided an opportunity to share experiences in implementing effective engineering solutions within the framework of HSIP Component 2 project activities. A total of 207 people participated in the training sessions.



Table 41. Trainings for EE capacity building for beneficiaries

Round 1			
Training topic	Energy and seismic audit for public buildings		
Date and time	Number of participants	Venue	Participants
Training 1 March 16, 2022. 9:00 – 17:00	39	Conference hall Parliament – Imperial (Dostuk hotel), Bishkek city	Heads of ayil okmotu, school principals, designers, representatives of the Ministry of Energy's Renewable Energy Department, representatives of the International Development Association and the State Secretariat for Economic Affairs of the Swiss Government, experts from the Community Development and Investment Agency of the Kyrgyz Republic
Training 2 March 17, 2022 9:00 – 12:30	35	Secondary school #82 in residential area Ala- Too	Heads of ayil okmotu, school principals, designers, experts from the Community Development and Investment Agency of the Kyrgyz Republic
Training topic	Monitoring results under the Round 1: Talas and Chui oblasts, Bishkek city		
Date and time	Number of participants	Venue	Participants
October 3, 2022	13	Secondary school named after Shukurbekov, village Maimak, Kara- Buura rayon of Talas oblast	ARIS, school principals, supply managers of the schools, teachers and technical staff of the schools
		Secondary school named after Soltonov, village Kalba, Talas rayon of Talas oblast	
October 7, 2022	15	Secondary school #82 in residential area Ala-Too	
	7	Sretenka secondary school, village Sretenka. Moskva rayon, Chui oblast	
November 22, 2022	13	Kindergarten #5 "Altyn Balalyk" Issyk- Ata rayon. Village Novopokrovka	
Round 2			
Training topic	Energy and seismic audit for public buildings		
Date and time	Number of participants	Venue	Participants
Training 1 November 22, 2022. 9:00 – 17:30	29 (Imperial) 22 (field visit-kindergarten Altyn Balalyk)	1). Conference hall Parliament– Imperial (Dostuk hotel), Bishkek city. 2). Kindergarten "Altyn Balalyk" Issyk- Ata rayon. Village Novopokrovka.	Heads of ayil okmotu, school principals, designers, experts from the Community Development and Investment Agency of the Kyrgyz Republic
Training topic	Monitoring results under the Round 2: Naryn, Jalal-Abad and Issyk-Kul oblasts		

Date and time	Number of participants	Venue	Participants
Training 2 November 28, 2023 9:00 – 17:30	17	Unison Group office	School principals, designers, experts from the Community Development and Investment Agency of the Kyrgyz Republic
Round 3:			
Training topic	Energy and seismic audit for public buildings		
Date and time	Number of participants	Venue	Participants
Training 1 September 29, 2023. 9:00 – 17:30	21	1). Conference hall, Guest House "EcoHouse" 2) FPC #2 of Osh city	Heads of ayil okmotu, school principals, experts from the Community Development and Investment Agency of the Kyrgyz Republic
Training topic	Monitoring results under the Round 3: Osh and Batken oblasts as well as Osh city		
Date and time	Number of participants	Venue	Participants
Training 2 September 30, 2023 9:00 – 17:30	18	Conference hall, Guest House "EcoHouse"	Engineering supervisors, designers, engineers of real estate developers, experts from the Community Development and Investment Agency of the Kyrgyz Republic

✓ **In addition, to increase knowledge and awareness in energy efficiency**, large-scale training sessions on ‘Energy Efficiency and Energy Saving’ were organized and conducted across the Kyrgyz Republic from March 27 to May 24, 2023.

These activities were aimed at raising awareness and improving the knowledge of representatives of social institutions in the regions, including administrations of schools, kindergartens, general medical practice centers and representatives of ayil okmotu.



Organizational activities

- A consultant was hired and a training module was developed, with **2,000 copies** printed.
- **Four qualified trainers** were hired to conduct the training sessions and prepared a schedule of events for each region.
- **Tests** have been developed **to assess knowledge before and after training**, as well as **feedback questionnaires**.
- Training included three modules:
 - **Module A:** Energy efficiency basics.
 - **Module B:** Improving energy efficiency of buildings.

- **Module C:** The impact of energy efficiency measures on everyday life.

Objectives and content of trainings

The main objective of the training sessions was to develop an understanding of the benefits of investing in energy efficiency, in particular:

- Energy savings and reduced operating expenditures.
- Improved comfort and indoor conditions.
- Reduced greenhouse gas emissions and compliance with environmental responsibility.
- Familiarization with energy efficiency legislation and international practices.
- Presentation of modern building materials and energy-saving technologies.

Results coverage

The total number of training participants was **2,766**, with a planned coverage of **2,709 (102.1%** achievement). Among these, **women accounted for 73.4%** (2,029 people), which is due to the high proportion of women among social institution employees. The highest percentage of women's participation was observed in Chui (83.3%), Issyk-Kul (84%) and Talas (75.5%) oblasts. Complete data on number of participants and gender structure are presented in *Table 42 and Table 43*.



Table 42. Number of training participants across the oblasts

Rayon	Venue	Date	Number of participants (people)		% of coverage
			plan	actual	
Talas oblast					
Manas	Village Pokrovka	March 27	35	35	100%
Bakai -Ata	Village Bakai-Ata	March 28	50	50	100%
Kara -Buura	Village Kyzyl-Adyr	March 29	62	62	100%
Talas	Talas city	March 30	58	58	100%
		Total	205	205	100%
Issyk -Kul oblast					
Tyup	Village Tyup	April 03	59	50	84.7%
Ak-Suu	Village Teploklyuchenka	April 04	66	67	100%
Jeti -Oguz	Village Kyzyl-Suu	April 05	61	61	100%
Ton	Village Bokonbayevo	April 06	45	35	77%
Issyk-Kul	Cholpon-Ata city	April 06	62	65	104.8%
		Total	293	278	95%
Chui oblast					

Moskva	Village Belovodskoye	April 3	57	57	100%
Panfilov	Kara-Balta city	April 4	38	38	100%
Jayil, Kara-Balta city	Kara-Balta city	April 5	65	65	100%
Sokuluk	Sokuluk city	April 6	77	77	100%
Kemin	Kemin city	April 10	52	52	100%
Chui, Tokmok city	Tokmok city	April 11	57	59	104%
Issyk -Ata, Kant city	Kant city	April 12	77	77	100%
Alamudun	Bishkek city	April 13	58	60	103%
		Total	481	485	101%
Naryn oblast					
Jungal	Village Chayek	April 17	59	59	100%
Kochkor	Village Kochkor	April 18	76	76	100%
Naryn	Naryn city	April 19.	80	80	100%
Ak-Talaa	Village Bayetovo	April 20	53	53	100%
At-Bashy	Village At-Bashy	April 24	58	58	100%
	Total		326	326	100%
Jalal -Abad oblast					
Suzak	Village Suzak	April 27	115	142	123%
Bazar -Korgon	Bazar -Korgon city	April 28	70	70	100
Aksy	Village Kerben	April 28	82	82	100%
Ala-Buka	Ala-Buka Village	April 28	60	60	100%
Chatkal	Village Jany-Bazar	April 29	28	28	100%
Nouken	Village Masy	April 29	70	70	100%
Toktogul	Toktogul city	May 2	57	57	100%
Toguz-Toro	Village Kazarman	May 12	25	24	99%
	Total		507	533	105.1%
Batken oblast					
Kadamjai	Kadamjai city	May 15	119	124	104%
Batken	Batken city	May 16	78	75	97%
Leylek	Razzakov city	May 17	82	82	100%
	Total		279	281	101%
Osh oblast					
Alai	Gulcho village	May 18	86	86	100%
Chon -Alai	Village Darout-Korgon	May 19	25	26	100%
Kara -Kulja	Kara -Kulja village	May 20	72	72	100%
Uzgen	Uzgen city	May 22	128	130	101%
Aravan	Aravan village	May 22	67	67	100%
Noukat	Noukat city	May 23	119	119	100%
Kara-Suu	Kara-Suu city	May 24	121	158	130%
	Total		618	658	106%
	Grand total across the republic		2709	2766	102.1%

Table 43. Gender group of trained participants (people) across the oblasts

Rayon	Total	Of which:			
		men	%	women	%
Talas oblast					
Manas	35	5	14.3	30	85.7
Bakai -Ata	50	11	22	39	78
Kara -Buura	62	16	25.8	46	74.2
Talas	58	18	36.1	40	63.9
Total for oblast	205	50	24.55	155	75.45
Issyk -Kul oblast					
Tyup	50	20	12.3	30	87.7
Ak-Suu	67	34	13.2	33	86.8
Jeti -Oguz	61	18	18.5	43	81.5

Ton	35	22	22.1	13	77.9
Issyk-Kul	65	9	13.8	56	86.1
Total for oblast	278	103	16%	175	84%
Chui oblast					
Moskva	57	7	12.3	50	87.7
Panfilov	38	10	26.3	28	73.7
Jayil	65	12	18.5	53	81.5
Sokuluk	77	17	22.1	60	77.9
Kemin	52	4	7.7	48	92.3
Chui	59	14	23.7	45	76.3
Issyk -Ata	77	11	14.3	66	85.7
Alamudun	60	6	10.0	54	90.0
Total for oblast	485	81	16.7	404	83.3
Naryn oblast					
Jungal	59	11	18.6	48	81.4
Kochkor	76	24	31.6	52	68.4
Naryn	80	21	26.3	59	73.7
Ak-Talaa	53	14	26.4	39	73.6
At-Bashy	58	15	25.9	43	74.1
Total for oblast	326	85	26.1	241	73.9
Jalal -Abad oblast					
Suzak	142	45	31.7	97	68.3
Bazar -Korgon	82	21	25.6	61	74.4
Aksy	60	8	13.3	52	86.7
Ala-Buka	28	6	21.4	22	78.6
Chatkal	57	15	26.3	42	73.7
Nouken	70	34	48.6	36	51.4
Toktogul	70	20	28.6	50	71.4
Toguz-Toro	24	4	16.7	20	83.3
Total for oblast	533	153	28.7	380	71.3
Batken oblast					
Kadamjai	124	20	16.1	104	83.9
Batken	75	16	21.3	59	78.7
Leylek	82	31	37.8	51	62.2
Total for oblast	281	67	23.8	214	76.2
Osh oblast					
Alai	86	29	33.7	57	66.3
Chon -Alai	26	16	61.5	10	38.5
Kara -Kulja	72	25	34.7	47	65.3
Uzgen	130	56	43	74	57
Aravan	67	24	35.8	43	64.2
Noukat	119	38	31.9	81	68.1
Kara-Suu	158	10	6.3	148	93.7
Total for oblast	658	198	30	460	70
Grand total across the republic	2766	737	26.6	2029	73.4

Evaluation by participants

A survey of participants following the training showed a high level of satisfaction:

- **95%** of participants noted the importance and usefulness of the training.
- **94%** evaluated the presentation of materials as the **highest score (5 out of 5)**.
- **100%** found the training interesting.
- **80%** expressed their willingness to apply the knowledge they had gained in practice.
- **90%** reported receiving **new information** that was previously unknown to them.
- **100%** expressed **satisfaction** with the content of the program.

The high ratings and positive feedback can be attributed to the **relevance of the topics** covered, as well as the **lack of similar training events in the past**, which made the training particularly meaningful for participants.

The training helped to **strengthen cooperation between designers and building administrations**, increased understanding of the importance of implementing energy-efficient technologies, and allowed for the **sharing experience in implementing effective engineering solutions** within the framework of the second round of HSIP project activities.

EE information campaign:

Within the framework of the Subcomponent 2.1 (A2) 'Capacity Building and Information Dissemination' of HSIP Component 2, between 2021 and 2024, Media Lab LLC, in accordance with the terms of contract #IDA-HSIP-CQ-2020-5 dated August 26, 2021 and the approved terms of reference, performed the following scope of work:

✓ **Filming was carried out at 21 facilities:**

As part of the project activities, comprehensive filming was carried out at all 21 facilities covered by the project, including video, aerial and photographic filming. These materials made it possible to record each phase of the retrofitting, from the initial phase to the completion of the energy efficiency improvement measures.



Description: Sample of television coverage

The photos and videos obtained were actively used to provide information support for the project on the official platforms of the ARIS, including:

- [Official page in Facebook](#)
- [Profile in Instagram](#)
- [ARIS official website](#)

All source media files, with a total volume of approximately **900 GB**, were transferred to the Project Implementation Unit (PIU), which is responsible for implementing HSIP Component 2.

Round 1

Table 44. Filming under the Round 1

#	Name	Oblast/rayon	Date/time
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1	GMPC	Chui/Panfilov	Trip 1– 03.08.2022. Trip 2– 04.11.2022. Trip 3 – 04.04.2023. Trip 4 – 27.11.2023. Trip 5 – 30.08.2024.
2	Sretenka secondary school	Chui / Moskva	Trip 1 – 18.10.2021. Trip 2 – 10.12.2021. Trip 3 – 10.12.2021.
3	Secondary school #82, residential area Ala-Too	Bishkek city	Trip 1 – 18.10.2021 Trip 2 – 25.02.2022 Trip 3 – 28.04.2022. Trip 4– 23.08.2022 Trip 5 – 07.09.2022
4	Kindergarten Altyn Balalyk	Chui / Issyk-Ata	Trip 1 – 27.01.2022. Trip 2 – 26.04.2022 Trip 3 – 20.05.2022 Trip 4 – 12.10.2022 Trip 5 – 27.10.2022
5	Secondary school named after R. Shukurbekov	Talas/Kara-Buura	Trip 1 – 19-20.11.2021 Trip 2 – 25-26.02.2022 Trip 3 – 03.09.2022
6	Secondary school named after A. Soltonov	Talas / Talas	Trip 1 – 18.11.2021 Trip 2 – 24.02.2022 Trip 3 – 09.06.2022

Round 2

Table 45. Filming under the Round 2

#	Name	Oblast/rayon	Date/time
1	Secondary school #15 named after A. Mukanov	Issyk-Kul / Tyup	Trip 1 –28.05.2022. Trip 2 – 30.07.2022 Trip 3 –17.11.2022 Trip 4 – 14.04.2023
2	Secondary school #89 named after P. Jumanazarov	Jalal-Abad/Suzak	Trip 1 – 11.07.2022. Trip 2 – 24.10.2022. Trip 3 – 08.05.2023. Trip 4 – 15.09.2023.
3	Secondary school #1 named after T. Moidunov	Jalal-Abad / Toguz-Toro	Trip 1 – 09.10.2022. Trip 2 – 24.05.2023. Trip 3 – 07.08.2023. Trip 4 – 21.12.2023.
4	Kindergarten "Janyl-Myrza	Jalal-Abad / Toguz-Toro	Trip 1 – 10.10.2022. Trip 2 – 24.05.2023.
5	Gymnasium school named after T. Tursunbayeva	Naryn /Jumgal	Trip 1 – 11.10.2022. Trip 2 – 17.05.2023. Trip 3 – 16.10.2024
6	GMPC	Naryn /Ak-Talaa	Trip 1 – 12.10.2022. Trip 2 – 15.05.2023. Trip 3 – 17.10.2024

Round 3

Table 46. Filming under the Round 3

#	Name	Oblast/rayon	Date/time
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1	GMPC for Alai rayon	Osh oblast, Alai	Trip 1 – 02.06.2023 Trip 2 – 25.07.2023 Trip 3 – 18.12.2023
2	FDG #5	Osh city	Trip 1 – 14.03.2023 Trip 2 – 25.07.2023 Trip 3 – 23.12.2023
3	GMPC	Osh oblast, Aravan	Trip 1 – 18.03.2023 Trip 2 – 27.07.2023 Trip 3 – 20.10.2023
4	Secondary school named after T. Sadykov	Batken oblast, Batken	Trip 1 – 14.03.2023 Trip 2 – 04.08.2023 Trip 3 – 02.09.2024
5	Secondary school in village Dodon	Osh oblast, Noukat	Trip 1 – 24.03.2023 Trip 2 – 24.07.2023 Trip 3 – 19.10.2023
6	Secondary school in village Naiman	Osh oblast, Noukat	Trip 1 – 24.03.2023 Trip 2 – 24.07.2023 Trip 3 – 08.02.2024
7	Secondary school #74 named after A. Sherkulov	Osh oblast, Kara-Suu	Trip 1 – 10.05.2023 Trip 2 – 27.07.2023 Trip 3 – 18.11.2024
8	Secondary school named after T. Murzaparov	Batken oblast, Batken	Trip 1 – 12.05.2023 Trip 2 – 04.08.2023 Trip 3 – 02.09.2024
9	Secondary school #85 Oktyabr-Tuusu	Osh oblast, Uzgen	Trip 1 - 08.05.2023 Trip 2 – 28.07.2023 Trip 3 – 14.09.2023

✓ According to the Media Plan, work on the opened facilities has been fully completed.

Television

Round 1

Table 47. List of television coverage of Round 1 events

Mass media name	Product	Date of issuance
ELTR	Videoclip about the project's activities within the framework of the first round	From July 12 – 21, 2023
STV	Videoclip showing the chronology of facility implementation in the Chui oblast	From July 12 – 21, 2023
Talas TV	Videoclip containing a chronology of the facility implementation in the Talas oblast	From February 13 – 17, 2023
Ala Too 24 (Opening of Sretenka school)	News stories: https://www.youtube.com/watch?v=aQ1TAKIU4vw https://www.youtube.com/watch?v=GJIiSuw5QFY	10.12.2021
STV (Opening of secondary school #82 Ala Too, kindergarten Altyn Balalyk)	News stories: https://www.youtube.com/watch?v=WZvPrWxchK0 https://www.youtube.com/watch?v=13rZUZ98bvQ	07.09.2022 28.10.2022.
Talas TV (Opening of school named after A. Soltonov)	News story: https://www.youtube.com/watch?v=CSNAObxLjdk	09.06.2022

Round 2

Table 48. List of television coverage of Round 2 events

Mass media name	Product	Date of issuance
JTV	Videoclip about three facilities in Jalal-Abad oblast: Kindergarten "Janyl-Myrza Secondary school #1 named after T. Moidunov Secondary school #89 named after P. Jumanazarov	From 28.02 to 08.03.2024. Time: 19:55; 20:28; 22:00
IK TV	Videoclip about the facility in Issyk-Kul oblast: Secondary school #15 named after A. Mukanov	From 13.07 to 22.07.2023. Time: 20:00 -20:30
Ala Too 24 (IK TV) (Opening of secondary school named after A. Mukanov)	News story: https://www.youtube.com/watch?v=D_3G4YdsWUw	14.04.2023
ELTR (Opening of secondary school named after A. Mukanov)	News story: https://www.youtube.com/watch?v=Tw0fOMAb9dw	14.04.2023
JTV (Opening of secondary school #89 named after P. Jumanazarov)	News story: https://youtu.be/ARryYYt0ItI?si=sHnC74xQaAmDvEO2	15.09.2023
JTV (Opening of secondary school #1 named after T.Moidunov)	News story: https://youtu.be/ExsY7f-q7X8?si=wOhmCjI4REmgPcx1	26.12.2023

Round 3

Table 49. List of television coverage of Round 3 events


Mass media name	Product	Date of issuance
Batken TV	Videoclips about the facilities in Batken oblast: Secondary school named after T. Murzaparov Secondary school named after T. Sadykov https://youtu.be/Q19mky1W-pc?si=pfjP3wAxPRA2pvwe	04.09.2024
OSH TV	Videoclips about the facilities in Osh oblast: Secondary school Dodon Secondary school named after Naiman https://www.youtube.com/watch?v=kCJkuZhHMjI	19-20.10.2023.
Ala Too 24	News story: FDG #5 Osh city https://www.youtube.com/watch?v=vMI3byK-JXE	23.12.2023.
UTRK	News story: Secondary school Dodon https://fb.watch/nTh8PDsRX0/?mibextid=cr9u03	23.10.2023.
Ala Too 24	Posting a videoclip on energy savings	December 2024. December 20-27, 2024.
ELTR	Posting a videoclip on energy efficiency	December 2024. December 20-27, 2024

Printed mass media and online

Round 1

Table 50. List of facilities coverage of Round 1 in mass media and online

Mass media name	Product	Date of issuance
National newspaper (About project benefits)	Article	March 2022.

		
<p>IA Kabar (About project importance) (about HSIP project)</p>	<p>Interview https://kabar.kg/news/proekt-uluchshenie-teposnabzhenie-cto-takoe-energoeffektivnost/</p>	<p>15.03.2022</p>
<p>Information agencies – Press release on schools openings:</p>		
<p>Secondary school #82, residential area Ala-Too</p>	<p>https://bilim.akipress.org/ru/news:1803135///?embed&pack=161</p>	<p>07.09.2022</p>
<p>‘School #82 opened in the Ala-Too residential area after retrofitting.’</p>	<p>https://kabar.kg/news/v-zhilmassive-ala-too-posle-rekonstrukcii-otkryli-shkolu-82/</p>	<p>08.09.2022</p>
<p>«Ала-Тоо конушундагы №82 мектеп оңдоп-түзөө иштеринен кийин ачылды»</p>	<p>http://kg.kabar.kg/news/ala-too-konushundagy-82-mektep-o-dop-t-z-ishterinen-kiin-achyldy/</p>	
<p>Sretenka secondary school</p>	<p>https://sretenskaya.mektebim.kg/news/otkrytie-nachalnoy-shkoly/</p>	<p>10.12.2021</p>
<p>Kindergarten Altyn Balalyk</p> <p>“A kindergarten in the Chui oblast was made energy efficient with funding from Switzerland and the World Bank”.</p>	<p>https://oper.kaktus.media/doc/469771_detsad_v_chyyskoy_oblasti_sdelali_energoeffektivnym_na_dengi_shveytsarii_i_vsemirnogo_bank.html</p>	<p>28.10.2022</p>
<p>Secondary school named after R. Shukurbekov</p> <p>“A school named after R. Shukurbekov was opened in the Talas oblast after retrofitting”.</p> <p>«Кара-Буура районунда Р.Шүкүрбеков атындагы мектеп оңдоодон өттү»</p> <p>‘How a school building was retrofitted in Kara-Buura rayon’</p> <p>«Кара-Буурада мектептин реконструкциядан кийинки ачылыш аземи болду»</p>	<p>https://kabar.kg/news/v-talasskoi-oblasti-otkryli-shkolu-imeni-r-shukurbekova-posle-rekonstrukcii/</p> <p>http://kg.kabar.kg/news/kara-buura-raionundagy-r-shk-rbekov-atyndagy-mektep-o-doodon-tt/</p> <p>https://barometr.kg/kak-v-kara-burinskom-rajone-modernizirovali-zdanie-shkoly</p> <p>https://barometr.kg/talasta-shkurbekov-atyndagy-mekteptin-rekonstrukciyadan-kiinki-achylysh-azemi-boldu</p>	<p>05.09.2022</p>
<p>Secondary school named after A. Soltonov</p> <p>‘A school was opened in Kalba village in the Talas oblast after retrofitting.’</p> <p>«Таластын Калба айылындагы мектеп модернизациялоодон кийин ачылды»</p> <p>“A school has opened in Kalba village in Talas oblast following retrofitting”.</p>	<p>https://kabar.kg/news/v-sele-kalba-talasskoi-oblasti-sostoialos-otkrytie-shkoly-posle-rekonstrukcii/</p> <p>http://kg.kabar.kg/news/talasta-energoeffektivd-l-k-metodu-menen-modernizatsialangan-mektep-achyldy/</p> <p>https://www.vb.kg/doc/419068_v_sele_kalba_talasskoy_oblasti_posle_modernizatsii_otkrylas_shkola.html</p>	<p>09.06.2022</p>

Round 2

Table 51. List of facilities coverage of Round 2 in mass media and online

Mass media name	Product	Date of issuance
Super Infor newspaper	Article “АРИС долбоору кантип социалдык объекттерди модернизациялап жана жылуулукту жакшыртып жатат: Инновациялык чечимдер жана жетишкендиктер”	#1088 13-19.10.2023. Page 18
IA CACTUS Media	Innovative solutions: how ARIS retrofits social facilities and improves heat supply https://kaktus.media/doc/482274_innovacionnye_resheniia: kak aris moderniziruet socialnye obekty i ychshaet teplosnabjenie.html	06.07.2023
Information agencies – Press release on schools openings:		
Secondary school #15 named after A. Mukanov	https://24.kg/obschestvo/263336_aygul_japarova_pri_nyala_uchastie_votkrytii_obnovlennoy_shkolyi_vsele_santash/ https://kaktus.media/doc/478995_aygul_japarova_otkryla_shkoly_posle_modernizacii_na_issyk_kyle_fotoreportaj.html https://kabar.kg/news/aigul-zhaparova-priniala-uchastie-v-otkrytii-otremontirovannoi-shkoly-na-issyk-kule/ https://www.vb.kg/doc/428829_pervaia_ledi_kr_pri_nyala_uchastie_v_ceremonii_otkrytia_shkoly_na_issyk_kyle.html https://bulak.kg/2023/04/14/aigul-zhaparova-prinyala-uchastie-v-otkrytii-shkoly-posle-modernizatsii-na-issyk-kule/ https://vesti.kg/obshchestvo/item/111408-aris-provel-remont-v-shkole-tyupskogo-raiona-gde-uchilas-pervaya-ledi-aigul-zhaparova.html	14.04.2023.
Secondary school #89 named after P. Jumanazarov	Two schools opened in Suzak rayon after retrofitting https://kabar.kg/news/v-uzgenskom-i-suzakskom-raione-otkrylis-dve-shkoly-posle-modernizacii/	18.09.2023
Secondary school #1 named after T. Moidunov	The retrofitting was carried out at School #1 in Kazarman village has improved its energy efficiency. https://www.kabar.kg/news/provedennaia-modernizatsiia-v-shkole-1-im.t.moidunova-v-toguz-torouskom-raione-pozvolila-povysit-energoeffektivnost/	22.12.2023
Kindergarten "Janyl-Myrza" A kindergarten was opened in Kazarmán village after retrofitting	https://kabar.kg/news/v-sele-kazarman-otkryli-detsad-posle-modernizacii/ https://eltr.kg/ru/detskij-sadik-sela-kazarman-otkryvaet-svoi-dveri-posle-modernizacii/	24.05.2023

Round 3

Table 52. List of facilities coverage of Round 3 in mass media and online

Mass media name	Product	Date of issuance
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Information agencies – Press release on schools openings:		
GMPC for Alai rayon	<p>Successful retrofitting of the General Medical Practice Centre in Alai completed</p> <p>https://www.vb.kg/doc/434209_zavershena_yspeshnaia_modernizaciia_centra_obshevrachebnoy_praktiki_v_alae.html</p> <p>https://m.facebook.com/story.php?story_fbid=pfbid0s1Eoaki3peahyxht3Z3FoUjxHppnWxQ1AsoJvwKR98wbwebNJSLLYAsdfNrSzdI&id=100070431365119</p> <p>https://www.instagram.com/p/C0_tzrINVmg/</p>	19.12.2023.
FDG #5	<p>FDG #5 provides comfortable conditions for the provision of high-quality medical services.</p> <p>https://www.vb.kg/doc/434337_v_gsv_5_sozdany_komfortnye_ysloviia_dlia_okazaniia_kachestvennyh_medyslyg.html</p>	26.12.2023
Aravan FDG	<p>After retrofitting, the GMPC was officially opened in Aravan - photo</p> <p>https://vesti.kg/obshchestvo/item/116370-v-aravane-posle-remonta-torzhestvenno-otkrylitsop-foto.html</p>	24.10.2023
<p>Secondary school named after T. Sadykov</p> <p>Secondary school named after T. Murzaporov</p>	<p>Facebook https://www.facebook.com/share/p/QRZGTuYXQuWof16/?mibextid=WC7FNe</p> <p>Instagram https://www.instagram.com/p/C_fIMeTih_r/?igsh=enhmajZqOWduOGhi</p> <p>Telegram https://t.me/ariskyrgyzstan/1074</p> <p>ARIS official website https://www.aris.kg/news/torzhestvennye-otkrytiya-modernizirovannyh-shkol-v-batkenskom-rajone-batkenskoj-oblasti</p>	04.09.2024
Secondary school Dodon	<p>The retrofitting of the Dodon School in Murkut village in Osh oblast has been completed.</p> <p>https://kabar.kg/news/zavershilas-modernizatciia-shkoly-dodon-v-sele-murkut-v-oshskoi-oblasti/</p> <p>https://fb.watch/nTh8PDsRX0/?mibextid=cr9u03</p>	23.10.2023
Secondary school named after Naiman	<p>The school in Naiman was retrofitted as part of the Heat Supply Improvement Project.</p> <p>https://www.vb.kg/doc/435252_shkola_v_naymane_byla_modernizirovana_po_proekty_vlychshenie_teplosnabjieniia.html</p>	09.02.2024
Secondary school #74 A. Sherkulov	<p>Ош облусунун Кара-Суу районунда жайгашкан А. Шеркулов атындагы №74 мектеп АРИСтин “Жылуулулук менен камсыздоону жакшыртуу” долбоорунун алкагында ийгиликтүү модернизацияланган.</p>	27.11.2024

	https://www.instagram.com/reel/DC3kt40uINP/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==	
Secondary school #85 Oktyabr-Tuusu	Two schools opened in Uzgen and Suzak rayons after retrofitting https://kabar.kg/news/v-uzgenskom-i-suzakskom-raione-otkrylis-dve-shkoly-posle-modernizatcii/	18.09.2023

- ✓ Communication between residents of the regions and representatives of local self-government bodies (LSGB) was carried out by sending information via WhatsApp groups and receiving feedback on the ARIS website (online platform). The mailing informed the local population and stakeholders about the work being carried out by ARIS HSIP. This includes parents of students, school and health institution staff, visitors, and representatives of LSGB.

✓ **Coverage of information campaigns by rounds:**

First round: covered Bishkek, Chui and Talas oblasts.

During the first round, active work was carried out on social media. Thirty-four information and video posts were prepared in Russian and Kyrgyz. Visuals (images) were developed for the posts, and videos were created and published on ARIS's official Facebook and Instagram pages with the launch of targeted advertising. Additional materials were posted on the website and on the ARIS Telegram channel.

Second round: covered Naryn, Issyk-Kul and Jalal-Abad oblasts.

During the second round, active work was also carried out on social media. Thirty information and video posts were prepared in Russian and Kyrgyz. All posts were accompanied by visuals and videos published on ARIS's Facebook and Instagram pages with targeted advertising, as well as on the website and Telegram channel.

Third round: covered Batken and Osh oblasts, as well as Osh city.

Similar work was carried out on social media as part of the third round. Thirty information and video posts were prepared in Russian and Kyrgyz, accompanied by visuals and videos. The materials were posted on ARIS's official Facebook and Instagram pages with targeted advertising, as well as on its website and Telegram channel.

✓ **Work results in social media:**

- The total coverage of all three rounds was approximately 100,000 people.
- Twelve news stories were prepared and broadcast on national television channels. According to a survey by M-Vector (November 2023), the audience coverage of the Ala-Too 24 television channel was 6.6% of the population of Kyrgyzstan, equivalent to 462,000 people, and the ELTR television channel was 6.7% of the population.
- Two detailed information articles were also prepared and published in the Super Info newspaper, which is the publication with the highest circulation and audience reach in the country.
- 21 videos were created for each facility and one general video summarizing the project results.
- 26 press releases were prepared and published.
- One detailed informational article was published in the Cactus Media news agency.
- One detailed informational article was published in the Kabar news agency.

Support for Implementation of the Energy Efficiency Roadmap:

✓ **On October 3, 2018** a team of energy experts participated in a workshop organized by the State Committee for Industry, Energy and Subsoil Use (SCIESU) with support from the World Bank. The event was dedicated to discussing a **roadmap for improving the energy efficiency of public buildings in the Kyrgyz Republic**.

The main objectives of the workshop were:

- Presenting the results of the World Bank's technical assistance and discussing mechanisms to support the government's energy efficiency program;
- Initiating political dialogue with key stakeholders and identifying leaders in promoting reforms;
- Raising awareness among government agencies about the importance of energy efficiency in the public sector.

As part of the event, the ARIS team presented the Heat Supply Improvement Project, detailing its objectives and criteria for selecting public buildings. The project attracted interest from participants as an example of a comprehensive approach to infrastructure retrofitting.

More than 30 representatives of government agencies and organizations participated in workshop, including:

- State Committee for Industry, Energy and Subsoil Use,
- OJSC National Energy Holding Company,
- State Property Management Fund,
- OJSC National Power Grid of Kyrgyzstan,
- Bishkek City administration, and others

The event contributed to strengthening interdepartmental cooperation and became an important step in promoting energy efficiency policy in the Republic.

✓ As part of the implementation of the first and second rounds of the project, **off-site training events** were organized at various facilities, with a total of **26 public buildings** visited. The training sessions were conducted with the aim of informing and raising awareness of energy efficiency issues among key stakeholders at the local level.



The following people participated in the training:

- Representatives of rayon state administrations (RSA),
- Representatives of ayil okmotu,
- Administration of public buildings, including **teachers, technical and administrative staff**.

As part of the field trips, participants were provided with information on:

- the main tasks, objectives and phases of project implementation;
- the advantages of energy-efficient solutions and energy-saving opportunities;
- innovative technologies used in building retrofitting (heat insulation, energy-saving lighting, heat recovery, energy-efficient heating, etc.



The training contributed to **raising awareness and fostering a responsible approach to the operation of retrofitted facilities**, as well as creating sustainable mechanisms for interaction between ARIS and local authorities

✓ **On October 10, 2019, an official event was held to launch Component 2** of the Heat Supply Improvement Project, dedicated to demonstrating the benefits of improving energy efficiency in public buildings. The event took the form of a **roundtable** discussion attended by representatives of key government agencies and international partners, including:

- Ministry of Healthcare,
- Ministry of Finance,
- State Committee for Industry, Energy and Subsoil Use (SCIESU),
- State Agency for Architecture, Construction and Housing and Utilities Infrastructure,
- State Agency for Local Self-Government Affairs,
- Rayon State Administrations (RSA),
- Local self-government bodies (LSGB),
- Representatives of the World Bank, SECO and ARIS.



During the event, **tripartite Memoranda of Understanding were signed** between ARIS, local authorities and the administrations of buildings selected for retrofitting in the first round of the project. These documents provided the legal basis for the start of technical preparation and implementation of energy efficiency measures at six public facilities.



Main topics of roundtable included:

- Presentation of objectives and mechanisms in Component 2 implementation;
- Presentation of the Roadmap for improving energy efficiency in public buildings in the Kyrgyz Republic;
- Discussing results of the first phase of buildings selection;
- Formalization of partnership relations between ARIS and local project participants.



Participants expressed their gratitude for the support provided to the project and offered valuable recommendations, which were taken into account and received a positive response from the ARIS team. The meeting highlighted the high level of interest and readiness of all parties to continue cooperation on issues related to the sustainable and effective development of public infrastructure.

Final conferences under the Component 2 - Demonstrating the benefits of energy efficiency improvements in public buildings of the Heat Supply Improvement Project

The main objective of the events was to summarize the results, evaluate the results achieved, analyze key achievements and challenges, and identify priority areas for possible continuation of the project's activities, taking into account feedback from partners and representatives of local communities.

To ensure maximum convenience for the invited guests and optimal logistics, the conference was organized in two regional locations and will conclude with a nationwide event.

✓ Osh, Batken and Jalal-Abad oblasts

On **May 27–28, 2025**, the **first part of the final conference** on implementation of Component 2 of the Heat Supply Improvement Project took place in Osh city, in the conference hall of the Grand Chavo Hotel (280, Kurmanjan Datka Street). The event was organized in a roundtable format with the participation of representatives from the southern regions of the Kyrgyz Republic, which ensured convenient logistics for all invitees.

Total of **68 people participated** in the event, including **18 women**, among them:



- Oblast plenipotentiary representatives of the President of the Kyrgyz Republic,
- Akims of rayons,
- Representatives of rayon education and health departments,
- Representatives of retrofitted facilities from Osh, Batken and Jalal-Abad oblasts.

Among the total number of participants, 49 were men and 15 were women. All invitees arrived in full, ensuring 100% attendance.



➤ **Chui, Issyk-Kul, Talas and Naryn oblasts**

On **September 11, 2025**, the **second part of the final conference** on implementation of Component 2, "Demonstrating the benefits of energy efficiency improvements in public buildings," of the Heat Supply Improvement Project was held in Issyk-Kul oblast. The roundtable event brought together over 80 participants from the Chui, Issyk-Kul, Talas, and Naryn oblasts, including regional plenipotentiary representatives of the President of the Kyrgyz Republic, rayon akims, representatives of the education and health sectors, and retrofitted institutions.



A total of **87 representatives from various organizations** participated in the conference, including **32 women**.

During the conference, presentations were given by the heads of the retrofitted educational and health facilities. In their speeches, they emphasized that the work had significantly improved living conditions: the buildings had become warmer, cozier, and more comfortable. Furthermore, the achieved effect had reduced energy consumption for heating and other needs.



- *Здесь добавить про финальную конференцию*

Где, когда, участники итд + фото

+ фото

The conferences were well-organized and informative. Discussions summarized the project's results, analyzed the achieved objectives, and identified key challenges encountered during on-site implementation. Particular attention was paid to presentations from representatives of beneficiary institutions, who clearly demonstrated improvements in infrastructure and heating conditions.

The conferences provided a valuable platform for discussing results, sharing experiences, and developing a direction for further development in improving the energy efficiency of public buildings. The high level of participant engagement and keen interest in the topic confirmed the relevance of continuing activities in this area.

Participants noted the project's significant positive impact on improving comfort, increasing energy efficiency, and reducing operating expenditures in educational and health facilities. Representatives of the institutions expressed gratitude for the support provided and the work performed.

Key findings of the conferences:

- Significant improvement in heat supply and energy efficiency in retrofitted facilities;
- Strengthening cooperation between local authorities and project implementation structures;
- Identification of successful practices that can be replicated in other regions of the country.

Recommendations for the future:

- Continue retrofitting of buildings in remote and vulnerable areas;
- Organize training and professional development for technical personnel at the local level;
- Strengthen systematic monitoring and technical support for existing facilities;
- Actively take into account the opinions and needs of communities when planning new stages.

In order to further disseminate successful experience and raise awareness among stakeholders, it is planned to conduct in October 2025 – a **nationwide event** aimed at:

- summing up the results of the project implementation;
- discussing the sustainability of the achieved results;
- developing recommendations for scaling up successful practices to other regions of the country;
- involving a wide range of representatives of state bodies, local authorities, international partners and civil society.

Such events are important steps towards sustainable development of social infrastructure and institutionalization of energy efficiency measures at the national level.

Subcomponent 2.2: Implementation support for Component 2

Subcomponent 2.2 provided comprehensive support for the implementation of project activities aimed at ensuring its effectiveness, sustainability and efficiency. The support included the following areas:

- **Project implementation unit operating expenditures:** During the project implementation process, all required operating expenditures were tracked and covered, including payment for consulting services and travel expenses within the Kyrgyz Republic.
- **Project operating expenditures:** Funding covered expenses related to administrative support provided by ARIS staff involved in project management. This included salaries, logistics support, and administrative needs.
- **Engagement of local experts:** As part of the project implementation, local consultants and technical specialists were hired to provide comprehensive support to the ARIS project team and target areas. Their assistance covered the planning, implementation and monitoring phases of project activities.
- **Monitoring and evaluation (M&E):** The monitoring and evaluation system developed during the previous phases of the project was maintained and regularly updated. The system ensured the continuous collection, analysis and presentation of information on implementation progress, the achievement of targets and the effectiveness of project activities.
- **Project audit:** An external audit of the project's financial statements was conducted annually in accordance with international standards. This process ensured transparency and accountability in the management of project funds.

- **Capacity building of the project team:** Targeted training courses, workshops and educational events were organized to improve the skills of the project team members. The topics covered key areas such as project management, energy efficiency, supervision, procurement, monitoring, compliance with environmental and social standards, etc.

Financial implementation

The total amount of funding was 12.6 million USD, including Grant IDA 2400-KG (Component 2) is 10.0 million USD (equivalent to XDR 7.0 million), and Grant SECO TF0B2457 - 2.6 million USD. However, due to inflation, an adverse change in the XDR/US dollar exchange rate (resulting in a loss of USD 621,400), and the declining of the US dollar against the national currency, additional resources were required to ensure the project's successful completion on time. Therefore, at the end of 2024, funding for the lacking funds in the amount of USD 250,000 was approved through a transfer from Component 1 to Component 2 under the Additional Financing Agreement for IDA Credit 7374-KG and the Disbursement Letter dated November 13, 2024.

Table 53. Information on funds disbursement (thousand USD)

Financing source	Total budget	Disbursed from the project commencement	Balance	Disbursement in %
Grant IDA 2400-KG	10 000.00	9 365.67	634.33	94%
Grant SECO TF0B2457	2 661.00	2 661.00	0.00	100%
Loan IDA 73740-KG	250.00	250.00	0.00	100%
Total	12 911.00	12 276,67	634,33	95%

In total, taking into account additional financing, the project budget amounted to USD 12.91 million, of which the following has been disbursed:

for IDA Grant 2400-KG - 94% of the funds amounting to USD 9.3 million, with the remaining amount consisting of the exchange rate difference in XDR in the amount of USD 621.4 thousand and the mistakenly withdrawn BTS amount (Component 1) of USD 9.7 thousand XDR, or approximately USD 12.8 thousand;

for SECO Grant TF0B2457 - 100%, the allocated funds have been fully disbursed and all liabilities have been disbursed;

for IDA Loan 7374-KG - 100%, the funds have been fully disbursed and used in the amount of USD 240,318.63, and the remaining amount of USD 9,681.37 was returned to the donor.

Disbursement of funds by components and types of expenditures

During the implementation of the Heat Supply Improvement Project, the following amounts were disbursed:

- **Component 2.1. (A1) 'Investments in improving energy efficiency in public buildings'** for a total amount of 11 015.29 thousand USD, including:

- ✓ for work performed and amounts withheld for the defects liability period, 9 767.48 thousand US dollars;
 - ✓ for consulting services, engineering and designer supervision of the retrofitting of facilities in the amount of 1,099.33 thousand US dollars;
 - ✓ local consultants, according to the completion certificate, for a total amount of USD 148,480;
- Within the framework of **Component 2.1. (A2) 'Capacity building and awareness raising'**, disbursements were made to Media Lab LLC in the amount of 65,420 USD according to the reports provided, the completion certificate for information campaign within the framework of the project, and to the AC Consulting Consortium and the Non-governmental Foundation "Rural Municipalities Development Centre" in the amount of USD 18,410 according to the reports provided, the completion certificate for impact assessment surveys.
 - Within the framework of **component 2.2, 'Project Management,'** with total amount of expenditures 1 116,17 thousand USD, including 704,17 thousand USD for the payment of salaries and social security contributions to regular staff and administrative pool staff. Operating expenditures, with total amount 223,83 thousand USD, include: communications, internet services, travel expenses, office maintenance, office equipment maintenance, office supplies and household goods, repair and maintenance of ARIS and fuel for service vehicles, and salaries for technical staff. In addition, 62,47 thousand USD was disbursed for the audit of the project's financial statements for 2019-2026, and 54,38 thousand USD was paid on training for project staff.

Table 54. Funds disbursement by components and types of expenditures (thousand USD)

Expenditures types and components	Disbursements
2.1. (A1) EE investments in public buildings	11 015,29
Works	9 767,48
Consulting services (DED, Engineering Supervision, EE Social survey)	1 099.33
Local consultant	148.48
2.1. (A2) Strengthening capacity and improving information	135.53
Trainings (2.1)	40.92
Consulting services (IC)	76.20
Communication and facilitation	18.41
2.2. Project management	1 116,17
Operating expenditures	223.83
Salary	704,17
Audit	62,47
Trainings (2.2)	54,38
Goods	71.32
Total	12 266,99

As of today, all liabilities are performed and disbursed, the balance of credit in the amount of 9 681.37 US dollars was returned to the donor.

Procurement

Information on procurement made between 2020 and 2025

Between 2020 and 2024, procurement activities were carried out in accordance with the World Bank's Procurement Guidelines. The following procurement were made as part of these activities:

- **Goods** — 6 contracts;
- **Works** — 21 contracts;
- **Consulting services** — 13 contracts.

All bidding procedures were advertised through official channels — on the ARIS website, in printed mass media, and on the electronic public procurement portal (EPP).

The tenders were conducted without significant difficulties or complaints. Most of the activities were completed on schedule, which indicates proper planning and effective management of the procurement process (See Table 55).

Table 55. Project status for HSIP procurement from 01.01.2020 to 31.05.2025

WORKS

Contracts under the Round I

#	Contract description	Contract signing date	Contract completion date	Contractor			
1	Improving energy efficiency of building of the secondary school #82 in residential area Ala-Too, Lenin rayon, Bishkek city	29.04.2021	28.04.2022	Consortium LLC "Biyik KG" and LLC "AT Empire"			
2	Improving energy efficiency of building of the secondary school in village Sretenka of Moskva rayon of Chui oblast	29.04.2021	28.02.2022	LLC "Archstroyinvest"			
3	Improving energy efficiency of building of the secondary school named after A. Soltonov in village Kalba, Talas rayon, Talas oblast	23.06.2021	22.04.2022	Consortium LLC "Alym-Stroy" and LLC "Capital Building LTD"			
4	Improving energy efficiency of building of the secondary school named after R. Shukurbekov in village Maimak, Kara-Buura rayon, Talas oblast	19.08.2021	20.06.2022	LLC TK "Universal Electro"			
5	Improving energy efficiency of building of the kindergarten #5 "Altyn-Balalyk" in village Novopokrovka, Issyk-Ata rayon of Chui oblast	18.01.2022	02.11.2022	LLC "Incom Systems"			
6	Improving energy efficiency of building of the General Medical Practice Center in village Panfilovskoye of Kurama ayil aimak of Panfilov rayon of Chui oblast	01.07.2022	29.03.2024	LLC "Ak-Tulpar"			

Contracts under the Round II

1	Improving energy efficiency of building of the secondary school #89 named after P. Jumanazarov in village Chymchyk-Jar of Yrys ayil aimak of Suzak rayon of Jalal-Abad oblast	30.04.2022	20.07.2023	LLC "Ak-Tulpar"			
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2	Improving energy efficiency of building of the secondary school #15 named after A. Mukanov in village Baizak, Tyup rayon, Issyk-Kul oblast	26.04.2022	26.04.2023	Consortium LLC "Alym-Stroy" and LLC SK "Optima"			
3	Improving energy efficiency of building of the kindergarten "Janyl Myrza" in Jalal-Abad oblast	14.07.2022	28.04.2023	Consortium LLC SPP "Oshkoopkurulush" and OJSC "MSPMK-2"			
4	Improving energy efficiency of building of the secondary school #1 named after T. Moidunov in Jalal-Abad oblast	14.09.2022	11.12.2023	Consortium LLC "Archstroyinvest" and LLC Chin-Alin			
5	Improving energy efficiency of building of the General Medical Practice Center named after A. Kokkozov in village Bayetovo of Bayetov ayil aimak of Ak-Talaa rayon of Naryn oblast	16.09.2022	31.01.2024	LLC "Construction company "Sher-Kurulush"			
6	Improving energy efficiency of building of the gymnasium school #7 named after T. Tursunbayeva in village Chayek of Chayek ayil aimak of Jungal rayon of Naryn oblast	19.09.2022	15.07.2024	LLC "Construction company "Sher-Kurulush"			

Contracts under the Round III

1	Improving energy efficiency of building of the secondary school named after T. Murzaparov in village Bujum, Kara-Bulak AA, Batken rayon, Batken oblast	30.03.2023	31.12.2023	Consortium LLC "Ilek Stroy Group" and LLC "Beishembai Kurulush"			
2	Improving energy efficiency of building of the secondary school named after T. Sadykov in Batken oblast	17.02.2023	31.12.2023	Consortium LLC "Ilek Stroy Group" and LLC "Beishembai Kurulush"			
3	Improving energy efficiency of building of the primary school #85 Oktyabr-Tuusu in village Kara-Kolot, Iyri-Suu AA, Uzgen rayon, Osh oblast.	17.03.2023	16.09.2023	LLC Capital Building LTD			
4	Improving energy efficiency of building of the secondary school named after A. Sherkulov in village Ak-Tash, Ak-Tash AA, Kara-Suu rayon, Osh oblast	24.03.2023	20.03.2024	Consortium LLC "Kyrgyz Spets Stroy" and CJSC "Montazhnik" and LLC Bektur Kelechek			
5	Improving energy efficiency of Family Practice Center #1 branch #5 of Osh city	16.02.2023	30.11.2023	Consortium LLC "Euro Story Montazh" and LLC "Monolit Stroy"			

6	Improving energy efficiency of building of the secondary school Naiman in villag Naiman, Naiman ayil okmotu, Noukat rayon, Osh oblast	02.03.2023	22.01.2024	LLC "PGS-VEK"			
7	Improving energy efficiency of building of the secondary school Dodon in Osh oblast	16.02.2023	27.09.2023	LLC "Uniservice-AST"			
8	Improving energy efficiency of building of the General Medical Practice Center (hereinafter-GMPC) of Aravan rayon in village Aravan, Osh oblast	02.03.2023	22.09.2023	Consortium LLC SPP "Oshkoopkurulush" and OJSC "MSPMK-2"			
9	Improving energy efficiency of building of the General Medical Practice Center (hereinafter-GMPC) of Alai rayon, in village Gulcha, Osh oblast	22.05.2023	22.12.2023	LLC SPP "Oshkoopkurulush"			

Total under the 3 rounds:

CONSULTING SERVICES

Subcomponent 2.1. Activity 1. - 1.2. Consulting services

#	Contract description	Contract signing date	Contract completion date	Contractor			
1	Preparation of design and estimate documentation to improve energy efficiency and seismic safety of 6 public buildings in Bishkek city, as well as in Chui and Talas oblasts and designer supervision	08.05.2020	25.03.2022	LLC Synch			
2	Detailed energy and seismic audits in selected seven public buildings in Jalal-Abad, Naryn and Issyk-Kul oblasts (Round 2)	16.09.2020	15.03.2023	Consortium LLC Unison Consulting + S.P.A. Rina Consulting			
3	Supervision over construction to implement measures on energy efficiency and seismic retrofitting in 6 public buildings in Bishkek city, as well as in Chui and Talas oblasts Part A	04.02.2021	31.12.2024	Consortium LLC Consulting company "Expertiza i technicheski nadzor" and Sweco GmbH			
4	Supervision over construction to implement measures on energy efficiency and seismic retrofitting in 6 public buildings in Bishkek city, as well as in Chui and Talas oblasts Part B	01.02.2024	31.12.2024	Consortium LLC KK ETN + SWECO GmbH			

5	Consulting services for baseline survey under the Heat Supply Improvement Project (HSIP)	29.03.2021	30.09.2021	Consortium AC Consulting and Non-governmental Foundation "Rural Municipalities Development Center"			
6	Consulting company for preparation of design and estimate documentation to improve energy efficiency and seismic safety of 6 public buildings in Jalal-Abad, Naryn and Issyk-Kul oblasts and designer supervision.	29.09.2021	30.04.2024	LLC "EAAS"			
7	Selection of consulting company for detailed energy and seismic audits of selected buildings (Round 3)	25.03.2022	01.07.2024	Consortium LLC Unison Consulting + S.P.A. Rina Consulting			
8	Supervision over construction to implement measures on energy efficiency and seismic retrofitting in 6 public buildings in Jalal-Abad, Naryn and Issyk-Kul oblasts	25.03.2022	31.12.2024	LLC Consulting company "Expertiza i technicheski nadzor"			
9	Preparation of design and estimate documentation to improve energy efficiency and seismic safety of 3 public buildings in Batken and Osh oblasts and designer supervision	05.08.2022	31.01.2024	LLC "SARZ PROJECT"			
10	Preparation of design and estimate documentation to improve energy efficiency and seismic safety of 3 public buildings in 3 public buildings in Osh city, Osh oblast and designer supervision	15.08.2022	10.02.2024	LLC "EAAS"			
11	Baseline survey under the Heat Supply Improvement Project (Round 3)	18.08.2022	30.11.2022	Consortium AC Consulting and Non-governmental Foundation "Rural Municipalities Development Center"			
12	Supervision over construction to implement measures on energy efficiency and seismic retrofitting in 9 public buildings in Osh city, Osh and Batken oblasts	02.06.2023	31.12.2024	LLC "Encon"			
13	Consulting services for Heat Supply Improvement Project Impact Assessment Survey	25.06.2024	30.10.2024	Consortium AC Consulting and Non-governmental Foundation "Rural Municipalities Development Center"			

Total:							
Subcomponent 2.1. Activity 2. - 1.2. Consulting services							
1	Consulting services for information campaign under the Heat Supply Improvement Project	26.08.2021	31.12.2024	LLC "Media lab"			
Total:							
Subcomponent 2.2. Support in project implementation. Goods. Consulting services.							
1	Audit of project financial statements	23.01.2020	30.06.2021	BDO Armenia CJSC			
2	Audit of project financial statements	31.01.2022	28.02.2026	LLC Baker Tilly Bishkek			
3	Final conference of HSIP for representatives of the district administrations of the Osh, Jalal-Abad and Batken provinces	27.05.2025	27.05.2025	LLC "Chavo"			
4	Final conference of HSIP for representatives of the district administrations of the Chui, Naryn and Issyk-Kul provinces	10.09.2025	10.09.2025	Resort "Issyk-Kul Aurora"			
5	Final conference of HSIP in Bishkek	24.10.2025	24.10.2025	LLC "Park Hotel Bishkek"			
Total:							
GOODS							
#	Contract description	Contract signing date	Contract completion date	Contractor			
1	Selection of a printing company for the replication and supply of educational materials for local communities	10.03.2023	25.03.2023	LLC "Optima Technologies"			
2	Car supply	12.07.2023	30.08.2023	LLC "Bedachi"			
Total:							
Grand total:							

Compliance with Social and Environmental Requirements

Component 2, 'Demonstrating the benefits of energy efficiency improvements in public buildings,' of the Heat Supply Improvement Project was classified by the World Bank as a Category B project, meaning that no significant or irreversible environmental impact is expected.

In order to manage social and environmental aspects, an **Environmental and Social Management Framework (ESMF)** was developed in 2017 to ensure compliance with the requirements of World Bank Policy 4.01 'Environmental Assessment' and the legislation of the Kyrgyz Republic.

The ESMF ensured the environmental and social sustainability of activities throughout their implementation cycle and provided ARIS engineering and technical personnel (ETP) and consultants with an adequate institutional, regulatory and technical framework for future processes and procedures to be followed in:

- (i) Identifying measures for implementing environmental and social assessment within the framework of the HSIP;
- (ii) Developing separate ESMP for each subproject, combining a set of measures to mitigate social and environmental impacts, environmental monitoring and institutional responsibility into an overall project implementation plan by including such document in the bidding documents for financing and supervision along with other subproject components;
- (iii) Identifying requirements for environmental monitoring and activities to strengthen the organizational structure that contributes to the beneficial impact of the project.

Activities to comply with World Bank Operational Policy 4.01

As part of the implementation of Component 2, 'Demonstrating the benefits of energy efficiency in public buildings,' of the Heat Supply Improvement Project, social and environmental screenings of all selected facilities were conducted. Based on the screening results, the degree of risk for each subproject was identified and appropriate Environmental and Social Management Plans (ESMPs) were developed in accordance with the provisions of the ESMF.

A total of 21 ESMPs were prepared for the facilities of three rounds, ensuring that the activities complied with the environmental and social legislation of the Kyrgyz Republic, as well as the IDA's safeguards policy. (See Table 56)

The objective of the environmental impact assessment was to identify the possible negative and positive consequences of the measures being implemented and to identify preventive or mitigating measures. The developed ESMP were included in the bidding documentation and served as the main regulatory guideline for contractors, ensuring that the work was carried out in compliance with all social and environmental requirements.

In addition, Social Impact Mitigation Plans were prepared for 19 facilities, aimed at preventing and eliminating potential inconveniences for the population, including ensuring the continuity of the educational process in preschool institutions during the retrofitting period.

Table 56. List of social and environmental documents, prepared under the Component 2

#	Subprojects name	Classification of risks based on the results of social and environmental screening	Name of prepared documents under the subproject	Status of implementation of measures envisaged in social and environmental documents
Round 1 facilities (in Bishkek city and in Chui, Talas oblast)				
1.	Improving energy efficiency of the secondary school building of Sretenka village	Moderate	Environmental and Social Management Plan for secondary school of village Sretenka	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school in village Sretenka	Implemented by building administration and municipality
2.	Improving energy efficiency of the secondary school building #82 in residential area Ala-Too	Moderate	Environmental and Social Management Plan for secondary school #82 in residential area Ala-Too	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school #82 in residential area Ala-Too	Implemented by building administration and municipality
3.	Improving energy efficiency of the secondary school building named after R. Shukurbekov	Moderate	Environmental and Social Management Plan for secondary school named after R. Shukurbekov	Executed by contractor
4.	Improving energy efficiency of the secondary school building named after A. Soltonov	Moderate	Environmental and Social Management Plan for secondary school named after A. Soltonov	Implemented by building administration and municipality
5.	Improving energy efficiency of the building of GMPC for Panfilov rayon	Moderate	Environmental and Social Management Plan for GMPC of Panfilov rayon	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for GMPC of Panfilov rayon	Implemented by building administration and municipality
6.	Improving energy efficiency of the building of kindergarten Altyn-Balalyk	Moderate	Environmental and Social Management Plan for kindergarten Altyn-Balalyk	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for kindergarten Altyn-Balalyk	Implemented by building administration and municipality
Round 2 facilities (in Naryn, Issyk-Kul and Jalal-Abad oblasts)				
7.	Improving energy efficiency of the secondary school building #15 named after A.Mukanov	Moderate	Environmental and Social Management Plan for secondary school #15 named after A.Mukanov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school #15 named after A.Mukanov	Implemented by building administration and municipality

8.	Improving energy efficiency of the secondary school building named after P. Jumanazarov	Moderate	Environmental and Social Management Plan for secondary school named after P. Jumanazarov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school named after P. Jumanazarov	Implemented by building administration and municipality
9.	Improving energy efficiency of the building of kindergarten Janyl-Myrza	Moderate	Environmental and Social Management Plan for kindergarten Janyl-Myrza	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for kindergarten Janyl-Myrza	Implemented by building administration and municipality
10.	Improving energy efficiency of the secondary school building named after T. Moidunov	Moderate	Environmental and Social Management Plan for secondary school named after T. Moidunov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school named after T. Moidunov	Implemented by building administration and municipality
11.	Improving energy efficiency of the building of gymnasium school (GS) named after T. Tursunbayeva	Moderate	Environmental and Social Management Plan for gymnasium school named after T. Tursunbayeva	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for gymnasium school named after T. Tursunbayeva	Implemented by building administration and municipality
12.	Improving energy efficiency of the building of GMPC for Ak-Talaa rayon	Moderate	Environmental and Social Management Plan for GMPC for Ak-Talaa rayon	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for GMPC for Ak-Talaa rayon	Implemented by building administration and municipality
Round 3 facilities (in Osh city and in Osh and Batken oblasts)				
13.	Improving energy efficiency of the secondary school building named after T. Sadykov	Moderate	Environmental and Social Management Plan for secondary school named after T. Sadykov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school named after T. Sadykov	Implemented by building administration and municipality
14.	Improving energy efficiency of the secondary school building named after T. Murzaparov	Moderate	Environmental and Social Management Plan for secondary school named after T. Murzaparov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school named after T. Murzaparov	Implemented by building administration and municipality
15.	Improving energy efficiency of the building of the primary school (PS) #85 Oktyabr Tuusu	Moderate	Environmental and Social Management Plan for primary school #85 Oktyabr Tuusu	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for primary school #85 Oktyabr Tuusu	Implemented by building administration and municipality

16.	Improving energy efficiency of the secondary school building named after A. Sherkulov	Moderate	Environmental and Social Management Plan for secondary school named after A. Sherkulov	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school named after A. Sherkulov	Implemented by building administration and municipality
17.	Improving energy efficiency of the building of Branch #5 FPC #1 of Osh city	Moderate	Environmental and Social Management Plan for Branch #5 FPC #1 of Osh city	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for Branch #5 FPC #1 of Osh city	Implemented by building administration and municipality
18.	Improving energy efficiency of the secondary school building of village Dodon	Moderate	Environmental and Social Management Plan for secondary school of village Dodon	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school of village Dodon	Implemented by building administration and municipality
19.	Improving energy efficiency of the secondary school building of village Naiman	Moderate	Environmental and Social Management Plan for secondary school of village Naiman	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for secondary school of village Naiman	Implemented by building administration and municipality
20.	Improving energy efficiency of the building of GMPC for Alai rayon	Moderate	Environmental and Social Management Plan for GMPC for Alai rayon	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for GMPC for Alai rayon	Implemented by building administration and municipality
21.	Improving energy efficiency of the building of FPC GMPC for Aravan rayon	Moderate	Environmental and Social Management Plan for FPC GMPC for Aravan rayon	Executed by contractor
			Social Impact Mitigation Plan during the temporary relocation of project affected people for FPC GMPC for Aravan rayon	Implemented by building administration and municipality

Consultations and informing project beneficiaries

Prior to the start of the bidding procedures for selecting contractors for all subprojects under Component 2, public hearings were organized and held. During the hearings, participants were provided with information about the project's objectives and tasks, which are aimed at improving the energy efficiency of social facilities in order to create comfortable conditions for building users, as well as reducing electricity consumption, which would result in significant budget savings.

Particular attention was paid at the hearings to the environmental and social aspects of the project implementation. It was emphasized that the interventions are local and temporary in nature and, if implemented competently, will not have a negative impact on the local and social environment. In order to mitigate possible risks, Environmental and Social Management Plans (ESMPs) were developed and presented, containing measures to prevent and minimize potential negative impacts.

Due to the COVID-19 pandemic and restrictions on mass events, as well as the armed conflict on the Kyrgyz-Tajik border and the tense situation in the Batken oblast, public hearings on projects in the Osh and Batken oblasts were held online. The hearings were organized using the ARIS digital platform and WhatsApp messenger. Informational videos provided detailed coverage of the project's objectives and its social and environmental components.

In total, more than 2,000 people participated in the public hearings, with women accounting for over 50% of participants, ensuring the inclusiveness of the information and feedback process.

Public hearings

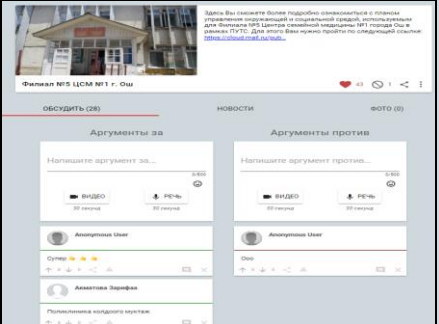
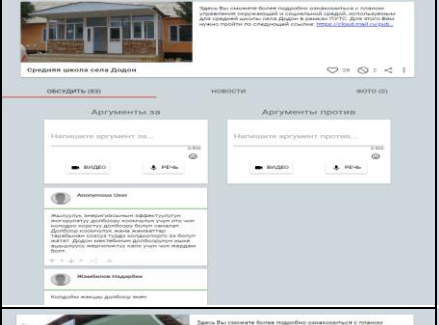
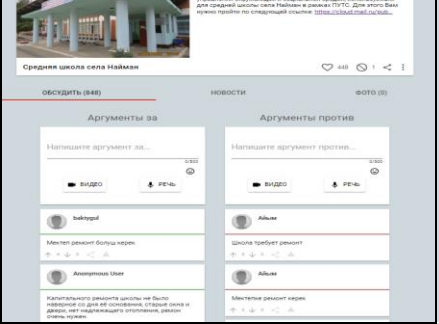
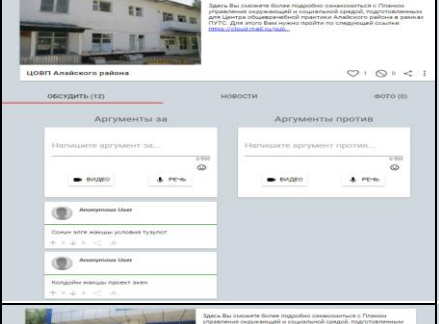
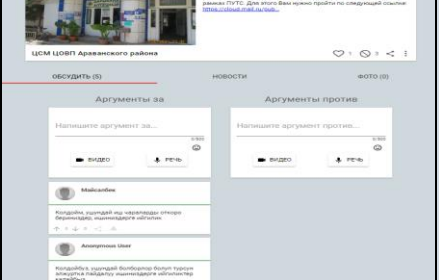
During the reporting period, 21 public hearings were held, of which 8 were conducted remotely via the ARIS online platform.

Table 57. Held public hearings

#	Facility	Date	Photo
1	Secondary school #82 in residential area Ala-Too of Bishkek city	27.05.2020	
2	Secondary school in village Sretenka	01.12.2020	
3	GMPC for Panfilov rayon	03.12.2020	
4	Secondary school named after A. Soltonov in village Kalba	05.04.2021	

5	Secondary school named after R. Shukurbekov in village Maimak	06.04.2021		
6	Kindergarten Altyn-Balalyk	From November 1 to 15, 2021	Public hearings were held in online via ARIS online platform	
7	Secondary school #15 named after A. Mukanov in village Baizak	27.01.2022		
8	Secondary school named after P. Jumanazarov in village Chymchyk-Jar	31.01.2022		
9	Secondary school named after T. Moidunov in village Kazarman	06.04.2022		
10	Kindergarten Janyl-Myrza in village Kazarman	06.04.2022		

11	GMPC for Ak-Talaa rayon in village Bayetov	29.06.2022		
12	Gymnasium school named after T. Tursunbayeva in village Chayek	01.07.2022		
13	Secondary school named after T. Sadykov, village Ak-Tatyr	Online from October 11 to 14, 2022	<p>Due to the armed conflict that occurred in the Batken oblast on the Kyrgyz-Tajik border and the continuing tense situation in the region, and for security reasons, it was decided to organize online public hearings via the ARIS online platform.</p>	
14	Secondary school named after T. Murzaparov, village Bujum	From October 14 to 19, 2022	<p>Due to the armed conflict that occurred in the Batken oblast on the Kyrgyz-Tajik border and the continuing tense situation in the region, and for security reasons, it was decided to organize online public hearings via the ARIS online platform.</p>	
15	Primary school #85 Oktyabr Tuusu, village Iyri-Suu	18.10.2022		
16	Secondary school named after A. Sherkulov, village Ak-Tash	From November 15 to 22, 2022	<p>Public hearings were held online via the ARIS online platform.</p>	

17	Branch #5 FPC #1 of Osh city	From November 15 to 22, 2022	Public hearings were held online via the ARIS online platform.	
18	Secondary school in village Dodon	From November 23 to 28, 2022	Public hearings were held online via the ARIS online platform.	
19	Secondary school in village Naiman	From November 23 to 28, 2022	Public hearings were held online via the ARIS online platform.	
20	GMPC for Alai rayon, village Gulcho	From December 19 to 23, 2022	Public hearings were held online via the ARIS online platform.	
21	GMPC for Aravan rayon, village Aravan	From December 19 to 23, 2022	Public hearings were held online via the ARIS online platform.	

Monitoring the organization of educational processes in temporary alternative buildings

In order to ensure the health and safety of school staff and students, as well as to maintain the educational process, the administration of the ayil okmotu and educational institutions organized educational processes outside of schools, i.e., either in other alternative buildings or through online learning. These measures are reflected in the Social Impact Mitigation Plans, which identify measures for organizing a safe temporary educational process. According to the plan, various buildings have been selected as alternative buildings for teaching children, which in its turn have been prepared for conducting classes for schoolchildren.

The schedule for the temporary relocation of schoolchildren and students is shown in the following table:

Table 58. Temporary relocation plan to alternative buildings

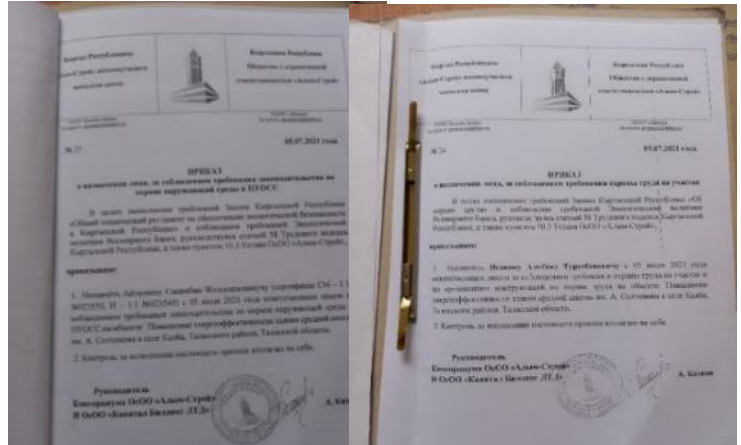
#	Retrofitted facilities	Number of building users (at the time of relocation)	Name of temporary alternative institution
1	Secondary school in village Sretenka (building for primary classes)	384	Secondary school in village Sretenka senior classes
2	Secondary school #82 (building for primary classes)	1176	Secondary school № 82 (building for senior classes)
3	Secondary school named after R. Shukurbekov	186	Online education
4	Secondary school named after A. Soltonov	420	Online education
5	GMPC for Panfilov rayon	230 (medical and technical staff)	- old building of FDG #1 of Kayindi city - new building of FDG #1 of Kayindi city - treatment and consultation department of the infectious diseases ward
6	Kindergarten Altyn Balalyk	195	Online education
7	Secondary school Santash #15 named after A. Mukanov	335	Old building of Santash school
8	Secondary school named after P. Jumanazarov	583	Buildings of rural community center
9	Secondary school named after T. Moidunov	1696	- building of Civil Registration Office - building of OJSC Kyrgyztelecom - building of vocational school #45 - building of community center
10	Kindergarten Janyl-Myrza	134	Online education
11	Gymnasium school named after T. Tursunbayeva	1260	Secondary school named after M. Alybayev
12	GMPC for Ak-Talaa rayon	163 (medical and technical staff)	Phased retrofitting: All departments from building A will be moved to building B. After the retrofitting is complete, they will be moved from building B back to building A.
13	Secondary school named after T. Sadykov	862	Secondary school named after J. Momunov in village Orto-Boz Secondary school in village Uch-Dobo Kindergarten Aruuke
14	Secondary school named after T. Murzaparov	977	A three-story building provided by an individual under a lease agreement.

Inspecting retrofitting sites

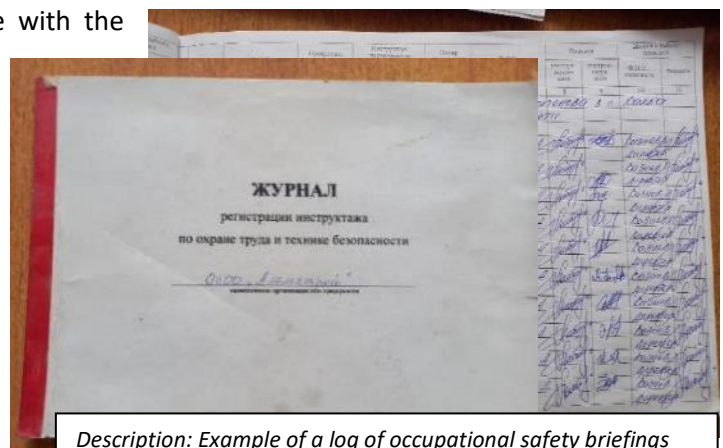
Inspection of retrofitting sites was carried out by the safeguards specialist together with the engineers of Component 2. In addition, in accordance with the project operational manual, engineering supervision engineers of the engineering supervision consulting companies LLC ETN and LLC Encon carried out daily checks to ensure that contractors were complying with the requirements of the ESMP and national legislation on labor protection and the environment.

At retrofitting sites, by orders of contractors, persons responsible for labor protection and environmental protection were appointed. All contractors were given instructions on labor protection and safety precautions in accordance with the developed and approved labor protection instructions for types of work and the ESMP.

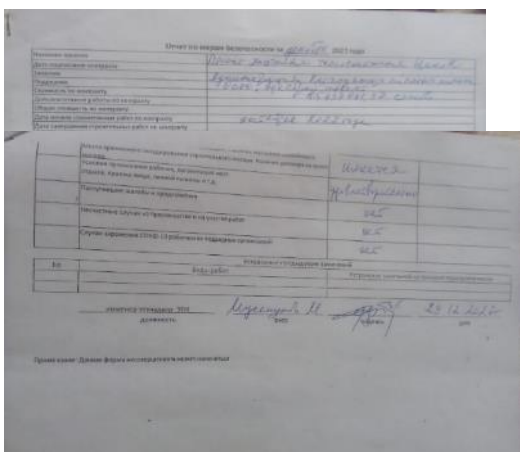
All retrofitting sites complied with measures aimed at mitigating negative impacts on the environment and social environment in accordance with the ESMP, with the exception of minor violations, which were eliminated immediately or by written order. In addition, engineering supervision engineers carried out constant inspections of facilities and sites in order to comply with safeguards and prevent possible risks of negative impacts on the environment and social environment.



Description: Sample of order on appointment of responsible persons on Occupational Health and Safety (OHS) and Environmental Protection (EP)

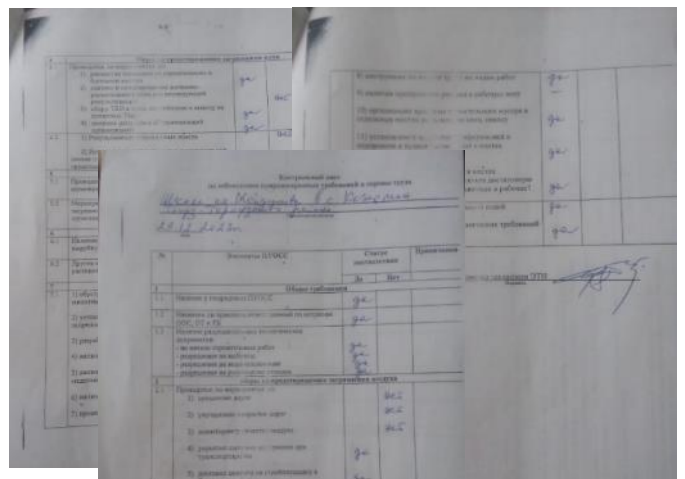


Description: Example of a log of occupational safety briefings



Description: Engineering supervision report on compliance with occupational health

As part of the project, a



Description: An example of a checklist for compliance with occupational health and safety requirements, completed by the engineering supervision engineer, in accordance with the approved form of the ESMP

safeguards specialist conducted on-site safeguards briefings and meetings with employees of

contractors, with the aim of preventing and warning accidents, as well as compliance with the code of conduct and preventing sexual violence, harassment and exploitation.

During the entire period of implementation of Component 2 of the Heat Supply Improvement Project, no accidents at work or registered accidents at retrofitting sites were recorded. All retrofitting was carried out in compliance with safety and labor protection requirements.

Activities aimed at people with disabilities

In all selected facilities within the framework of the project, ramps for PWDs were provided in accordance with GOST (State Standards). Since only retrofitting was carried out within the framework of the project, the activities aimed at PWDs were limited to the installation of ramps next to the existing stairwells at the entrance to the buildings. Only in one building (GMPC in Panfilov rayon) an elevator was built, which is primarily designed for the transportation of seriously ill patients. In addition, in some facilities, due to the impossibility of providing separate toilets for PWDs, handrails were installed, this is explained by the fact that many existing buildings were designed and built 40-50 years ago and, accordingly, did not allow the installation of separate toilets for PWDs in accordance with sanitary standards.



Description: Conducting on-site briefing for the contractor



Description: New elevator in GMPC for Panfilov rayon



Description: Examples of ramps at retrofitted facilities

Beneficiary Feedback Mechanism and Grievance Redress Mechanism (GRM)

As part of the implementation of Component 2 of the project, a functioning Beneficiary Feedback Mechanism (FM), including a Grievance Redress Mechanism (GRM), was in place in ARIS in accordance with the World Bank recommendations.

Information banners of the BFM were placed at the sites of implementation of subprojects of all rounds, as well as contact information for communication - on the stands of contractors and in the buildings of the ayil okmotu. In addition, together with the World Bank, an online platform with information about projects was created on the official website of ARIS, where beneficiaries and stakeholders could send their requests or complaints.

Information about the BFM was also disseminated through the official ARIS pages on social media (Facebook and Instagram), which ensured wide coverage of the target audience and the availability of the communication channel.

Taking into account the World Bank standards, ARIS took measures to prevent sexual exploitation and abuse (SEA), sexual harassment (SH) and gender-based violence (GBV) at all phases of the project implementation. All ARIS and contractor staff were informed about the relevant principles and procedures.

With the start of the implementation of the subprojects of Round III, information about the BFM started upon signing of the Cooperation Agreements between ARIS and the relevant ayil okmotu.

Requests received within the framework of the implementation of Component 2 (01.01.2019 – 31.05.2025)

During the reporting period, **45 requests** were received by the ARIS BFM system, of which:

- **32 requests** related to general questions and suggestions;
- **8 letters of appreciations** - with a positive assessment of the significance of the project and recognition of its contribution to improving the quality of life;
- **5 complaints** related to violations of contractual obligations by contractors

All complaints were promptly reviewed and appropriate corrective measures were taken in accordance with the established procedure.



Description: Information stands



Description: Online platform at ARIS website

Monitoring and evaluation

The monitoring and evaluation system were an important tool used within the Project Component 2 “Demonstrating the benefits of energy efficiency improvements in public buildings” of the HSIP to track progress, evaluate results and ensure transparency of implementation.

The objective of the monitoring and evaluation system was to ensure effective implementation of project activities, transparency of all processes, as well as systematic monitoring of the progress for the purpose of analysis, adjustment and subsequent planning. For M&E purposes, ARIS developed and implemented a Management Information System (MIS) based on 1C software, designed to track the progress of project activities and the achievement of key performance indicators, including those recorded in the project results framework and the Operational Manual (OM).

The project was monitored at both the central and local levels. At the **central level**, the responsibility for monitoring was borne by the monitoring and evaluation specialist, who ensured the collection, analysis and consolidation of information on project implementation.

The responsibilities of the M&E specialist included the following:

- **Report Preparation:** The Monitoring and Evaluation Specialist prepared **semi-annual reports for the donor, quarterly and monthly reports for the Ministry of Finance and the Ministry of Economy** on progress of the project activities. She also developed analytical presentations and reference materials at the request of the **Government of the Kyrgyz Republic**, the **Jogorku Kenesh**, the **ARIS Supervisory Board**, as well as other interested government and donor structures. These reports included both **qualitative** and **quantitative** data reflecting the degree of achievement of the key indicators described in the **results framework**.
- **Data Entry and Analysis:** The specialist systematically entered and analyzed data entered into the Management Information System (1C software). For Component 2, a parallel database in Excel format was additionally maintained, used to monitor the progress at the sites.
- **Coordination of social surveys:** The M&E specialist coordinated the collection and processing of data received from the social survey consultants. She checked the reports for compliance with the terms of reference and provided an analysis of the level of satisfaction of end users (schools, kindergartens, GMPCs, etc.) with the quality of retrofitting and the conditions provided.
- **Processing of internal project reports:** ongoing work was carried out to analyze monthly and quarterly reports from technical, social and infrastructure project employees.
- **Field control and data verification:** periodic visits to project implementation sites were conducted by employees of the central and regional offices of ARIS. As part of these visits, verification of entered data, inspection of the progress of retrofitting and commissioning work, as well as direct interaction with the administration of institutions and contractors were carried out.

At the **local level, monitoring** was carried out by Building Users Committees (BUCs), which included representatives of the institution administrations, parent committees, technical staff and local governments. These committees acted as project partners at the local level, ensuring interaction with contractors and ARIS, as well as community participation in the implementation of activities.

Indicators of Component 2

Following the provision of additional grant funds from SECO, the target values for the indicators of Component 2 were revised and increased by 25%, as reflected in the table below.

Table 59. Revised target indicators under the Component 2 following the project restructuring

#	Name	IDA: #PAD2164 dated 05.10.2017	SECO: #PAD3552 dated 08.04.2020
1	Projected (cumulative) lifetime energy savings, standard - Megawatt-hour (MWh)	41 443.892	51 804.87
2	Projected (cumulative) lifetime fuel savings - Megajoules (MJ)	149 198 011.20	186 497 514.00
3	Project direct beneficiaries (number of people)	9 450.00	9 450.00
4	Percentage of women beneficiaries (%)	50.00%	50.00%
5	CO ₂ lifetime reduction (tons/year)	2 072.19	2 590.24
6	Number of retrofitted buildings	21	21
7	Percentage of project beneficiaries reporting improved heating quality (%)	70.00%	70.00%
8	Efficiency of citizen engagement (%)	None	50.00%

Achievement of indicators:

1. Indicator: Number of retrofitted public buildings

Target:	21
Achievement:	21
% of implementation	100%

Taking into account the available funds, estimated costs and project design, approximately 6-8 public buildings with the highest rating and a total heated area of approximately 9,700 m² had to be selected annually during the first three years. As a result of the project, the objective of retrofitting of 21 buildings was achieved, and it was possible to cover 43,917 m², which is 14,817 m² more than the planned 29,100 m². A total of **21 facilities**, including: 2 kindergartens, 14 schools, 5 hospitals (see Table 60).

Table 60. Total and heated area of buildings

#	Building name	Oblast	Rayon	Total area (m ²)	Heated area (m ²)
Round 1					
1	Sretenka secondary school	Chui	Moskva	1322	1182
2	Secondary school #82, residential area Ala-Too	Bishkek city	Lenin	1522	1194
3	Secondary school named after A. Soltonov	Talas	Talas	1840	1148
4	Secondary school named after R. Shukurbekov	Talas	Kara-Buura	1840	1127
5	Kindergarten Altyn-Balalyk	Chui	Issyk -Ata	989	825
6	GMPC for Panfilov rayon	Chui	Panfilov	4138	3441
Total in Round 1:				11651	8917
Round 2					
1	Secondary school #15 named after A. Mukanov	Issyk-Kul	Tyup	1974	1863

2	Secondary school #89 named after P. Jumanazarov	Jalal-Abad	Suzak	4656	3412
3	Secondary school #1 named after T. Moidunov	Jalal-Abad	Toguz-Toro	7752	5330
4	Kindergarten Janyl-Myrza	Jalal-Abad	Toguz-Toro	1632	858
5	Gymnasium school #7 named after T. Tursunbayeva	Naryn	Jungal	7807	5445
6	GMPC for Ak-Talaa rayon	Naryn	Ak-Talaa	3472	2 800
Total in Round 2:				27293	19 708
Round 3					
1	Secondary school named after T. Sadykov	Batken	Batken	3867	3468
2	Secondary school named after T. Murzaparov	Batken	Batken	4215	3528
3	Secondary school #85 Oktyabr-Tuusu	Osh	Uzgen	349	303
4	Secondary school #74 named after A. Sherkulov	Osh	Kara-Suu	2898	2760
5	FPC #1 Branch #5 of Osh city	Osh city	Osh city	856	653
6	Secondary school named after Dodon	Osh	Noukat	702	590
7	Secondary school in village Naiman	Osh	Noukat	2214	1923
8	GMPC for Aravan rayon	Osh	Aravan	1084	880
9	GMPC for Alai rayon	Osh	Alai	1501	1187
Total in Round 3:				17686	15292
Grand total in 3 rounds:				56630	43917

2. Indicator: Project direct beneficiaries under the Component 2 (quantity)

Target:	9 450 people
Achievement:	12 809 people
% of implementation	135.5%

The HSIP covered a wide range of stakeholders and beneficiaries. Direct beneficiaries included students, teachers, patients, and employees of educational and health institutions. Instead of the planned 9,450, the project covered **12,809** users (see Table 61).

Table 61. Quantitative data on beneficiaries of 3 Rounds facilities

ROUND 1							
#	Facility name	Total number of building employees	Employee (W)	Total number of students/patients per day	Students /patients (W)	Total number of building users	Total users (W)
1	Secondary school in village Sretenka	28	22	450	239	478	261
2	Secondary school named after R. Shukurbekov	30	25	185	100	215	125
3	Secondary school named after A. Soltonov	43	31	361	166	404	197
4	Secondary school #82	51	47	1754	848	1805	895
5	Kindergarten "Altyn-Balalyk"	21	18	169	86	190	104
6	GMPC for Panfilov rayon	302	246	101	65	403	311
Total in Round 1		475	389	3020	1504	3495	1893
ROUND 2							
1	Secondary school #15 named after A. Mukanov	45	38	292	134	337	172
2	Secondary school #89 named after P. Jumanazarov	46	37	536	270	582	307

3	Secondary school #1 named after T. Moidunov	114	106	1557	795	1671	901
4	Kindergarten "Janyl-Myrza"	24	21	110	61	134	82
5	Gymnasium school named after T. Tursunbayeva	102	85	1154	621	1256	706
6	GMPC for Ak-Talaa rayon	296	251	52	32	348	283
Total in Round 2		627	538	3701	1913	4328	2451
ROUND 3							
1	Secondary school named after T. Sadykov	65	50	911	427	976	477
2	Secondary school named after T. Murzaparov	81	68	877	447	958	515
3	Secondary school #85 "Oktyabr-Tuusu"	10	6	50	21	60	27
4	Secondary school #74 named after A. Sherkulov	65	53	730	354	795	407
5	FPC #1 "Branch #5" of Osh city	72	68	137	66	209	134
6	GMPC for Aravan rayon	540	523	397	202	937	725
7	GMPC for Alai rayon	62	52	7	4	69	56
8	Secondary school named after Dodon	40	33	279	142	319	175
9	Secondary school in village Naiman	47	39	616	293	663	332
Total in Round 3		982	892	4004	1956	4986	2848
Grand total for three rounds		2084	1819	10725	5373	12809	7192

3. Indicator: Women beneficiaries under the Component 2 (percentage)

Target:	50%
Achievement:	56%
% of implementation	112%

Among the total number of beneficiaries, **7,192** are women, representing **56%** of the total number. This confirms that the required target of **50%** for the indicator of the percentage of women was successfully met.

Women have benefited significantly from improved comfort levels and the creation of safer and more positive working environments in the retrofitted public buildings under **Component 2**. According to an analysis of data on the educational and health facilities covered by the project, women account for a significant proportion of end users (*see Table 60*).

These findings are based on **gender-disaggregated data** collected at all phases of Component 2 implementation. Project documentation and the monitoring system required mandatory gender disaggregation when collecting information on beneficiaries.

In addition, Component 2 **tracked the level of satisfaction** with conditions in retrofitted buildings, taking into account the gender of respondents. This made it possible to take into account gender differences in the perception of the quality of services provided, working conditions and the internal microclimate.

Furthermore, information campaigns and training events (including on operation of buildings following the retrofitting) used methods that ensured the **involvement of both women and men**. All messages were formulated taking into account the principles of **gender sensitivity and equal access to information**.

4. Indicator: Projected (cumulative) lifetime energy saving under the Component 2 (megawatt hour (MWh))

Target:	51 805.00 MWh
Achievement:	184 042.46 MWh
% of implementation	355%

This indicator reflects the volume of electricity that was planned to be saved as a result of energy efficiency measures during the estimated service life of the retrofitted buildings (20 years).

According to the calculated data collected from energy audit reports upon work completion, the projected total energy savings significantly exceeded initial expectations. This demonstrates both the effectiveness of the measures implemented and the use of more progressive technical solutions during project implementation.

The **total estimated energy savings** (see Table 62) for all facilities amounted to **9,202,123 kWh/year**, which is equivalent to:

- about **184,042 MWh over 20 years of operation**;

MWh (megawatt hour) is a unit of energy measurement that shows how much energy was consumed or produced at a power of 1 megawatt (1 MW = 1,000,000 watts) during one hour.

The **target indicator was exceeded**, among other things, by including in the project buildings with a larger total and heated area than originally envisaged. The initial indicator calculations were based on smaller volumes. For more details, see Table 59 "Total and heated area of buildings".

#	Facility name	Normative energy consumption before retrofitting according to the sanitary rules and standards (for 1 year)	Estimated energy consumption after energy efficiency measures following retrofitting (for 1 year)	Total estimated energy savings for 1 year	Total energy savings for 1 year	Total energy savings (for 20 years)	Actual energy consumption after energy efficiency measures following retrofitting for 9 facilities	Total actual energy savings for 9 facilities (for 1 year)	Total actual energy savings for 9 facilities (for 1 year)
		kWh/year	kWh/year	kWh/year	%	MWh/year	kWh/year	kWh/year	%
1	GMPC for Panfilov rayon	1550105,00	381105.00	1169000.00	75,41	23380.00			
2	Sretenka secondary school	396297,00	71573.00	324724.00	81,94	6494,48	52923,00	343374,00	86,65
3	Secondary school #82, residential area Ala-Too	360498,00	60312,00	300186,00	83,27	6003,72	37639,00	322859,00	89,56
4	Secondary school named after R. Shukurbekov	419100,00	66291,00	352809,00	84,18	7056,18	80160,00	338940,00	80,87
5	Secondary school named after A. Soltonov	395249,00	70631,00	324618,00	82,13	6492,36	126365,00	268884,00	68,03
6	Kindergarten Altyn-Balalyk	200381,00	42255,00	158126,00	78,91	3162,52	39800,00	160581,00	80,14
7	Gymnasium school named after T. Tursunbayeva	1229352,00	358500,00	870852,00	70,84	17417,04			
8	Secondary school #15 named after A. Mukanov	519585,00	112151,00	407434,00	78,42	8148,68	111720,00	407865,00	78,50
9	Secondary school #89 named after P. Jumanazarov	793729,00	113151,00	680578,00	85,74	13611,56			
10	GMPC for Ak-Talaa rayon	959643,00	377929,00	581714,00	60,62	11634,28			
11	Secondary school #1 named after T. Moidunov	1482708,00	404572,00	1078136,00	72,71	21562,72			
12	Kindergarten Janyl-Myrza	264141,00	29912,00	234229,00	88,68	4684,58	102430,00	161711,00	61,22
13	Secondary school named after T. Murzaparov	591046,00	91838,00	499208,00	84,46	9984,16			
14	Secondary school named after T. Sadykov	650943,00	87239,00	563704,00	86,60	11274,08			
15	Secondary school #85 Oktyabr-Tuusu	117618,00	13786,00	103832,00	88,28	2076,64	19283,00	98335,00	83,61
16	Secondary school #74 named after A. Sherkulov	416210,00	50225,00	365985,00	87,93	7319,70			
17	Building of FPC #1 Branch #5 of Osh city	163844,00	20893,00	142951,00	87,25	2859,02			
18	GMPC for Aravan rayon	174678,00	59106,00	115572,00	66,16	2311,44			
19	GMPC for Alai rayon	387905,00	77816,00	310089,00	79,94	6201,78			
20	Secondary school in village Naiman	520663,00	73437,00	447226,00	85,90	8944,52			
21	Secondary school named after Dodon	190128,00	18978,00	171150,00	90,02	3423.00	39272,00	150856,00	79,34
	Total for all facilities		2581700.00	9202123.00		184042.46			

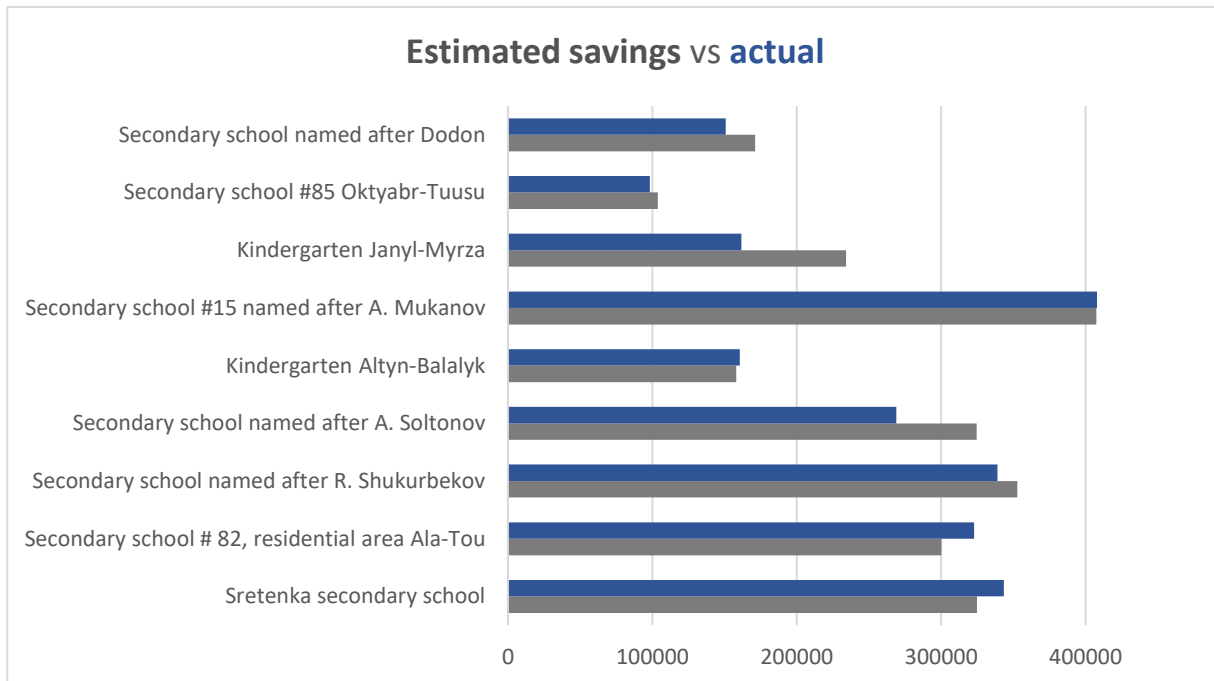
Table 61. Data from energy audits reports

To confirm the calculated data obtained from the energy audit reports, a **selective monitoring of 9 facilities** from different project rounds was additionally conducted. The monitoring was carried out in accordance with the terms of reference of the consultant who carried out the energy and seismic assessment of the buildings.

Based on the monitoring results:

- The average calculated level of energy savings was **83%**;
- The actual level of energy savings recorded during the monitoring was **78.7%**.

These results confirm the high efficiency of the implemented measures to improve energy efficiency and demonstrate an insignificant discrepancy between the predicted and actual indicators, which indicates the **reliability and realism of the calculated energy audit models**.



Picture 4. Comparison of estimated and actual energy savings per year

Comparison of estimated and actual energy savings by facilities

The graph above shows a comparison of the estimated and actual annual energy savings for 9 facilities for which both values are available. Most facilities demonstrated **actual energy savings higher than expected**, indicating the **real effectiveness of the implemented energy efficiency measures**.

Findings:

- **7 out of 9 facilities** demonstrated either compliance with or **exceedance of the estimated values**, indicating that the energy saving potential was correctly assessed at the design phase.
- Facilities with a negative deviation may have:
 - An additional extension to the building, which increases the electrical load
 - Increased energy consumption due to external factors (e.g. increased number of users)

Accordingly, the following indicators were achieved: fuel savings and emission reduction, since they are calculated from the energy saving indicator.

5. Indicator: Projected (cumulative) lifetime fuel savings under the Component 2 (megajoules (MJ))

Target:	186 497 514.00 MJ
Achievement:	662 552 856.00 MJ
% of implementation	355%

This indicator reflects the volume of fuel savings, expressed in megajoules (MJ), achieved as a result of implementing energy efficiency measures in public buildings throughout their estimated service life (20 years).

Calculation method:

To convert the estimated energy savings from megawatt-hours (MW h) to megajoules (MJ), a standard conversion factor is used:

1 MWh = 3,600 MJ

Thus, with a total energy savings over 20 years of:

184,042 MW h × 3,600 = 662,552 856.00 MJ

Findings:

The estimated total fuel savings as a result of retrofitting are 3.5 times higher than the target value set at the planning phase. This is due to:

- a larger area of retrofitted buildings than originally assumed;
- the use of more efficient technologies and materials that improve heat savings;
- improved technical solutions based on the results of energy and seismic audits.

Such indicators demonstrate the high effectiveness of measures to improve energy efficiency within Component 2, as well as the positive impact of the project on sustainable energy consumption in the social infrastructure of Kyrgyzstan

6. Projected (cumulative) lifetime CO₂ savings under the Component 2 (tons/year)

Target:	2590,00 tons/year
Achievement:	13 354.96 tons/year
% of implementation	516%

Calculation method:

The following approach is used to identify the CO₂ savings:

- The **total estimated energy savings** over 20 years of operation of the retrofitted buildings are taken as a basis.
- Total estimated savings: **184,042 MWh**.
- The standard **emission factor** is used to convert into CO₂ savings:

1 MWh of saved electricity ≈ 0.08 and 0.068 tons of CO₂

For the First Round, an emission factor of 0.08 (CO₂ emissions per 1 kWh of electricity) was used, calculated according to the IEA and WB methodologies (PAD 3552 p. 87).

For the second and third rounds, an emission factor of 0.068 from the ECB Methodology was used (see Figure 6).

Transformation and conversion factors (table 22 from draft ECB Methodology)

Supply source	specific end user side heat power demand (kWh)	Transmission / distribution losses	Generation / combustion efficiency, current	Primary energy fuel type	End energy consumption factor ep (Endenergy/heat power demand)	CO2 emission factor end energy site (kg CO2 /kWh)	Assumed weight in KyrSEFF Energy mix	Specific energy content
Electricity (KG national mix)	1	30%	99%	RE	1,31	0,068	25%	1
DH, based on Coal, mix of Heat	1	30%	65%	Brown coal	2,00	0,433	50%	1163 kWh/Gcal
Individual boiler, Brown Coal	1	3%	60%	Brown coal	1,72	0,433	6%	5180 kWh/t
Individual boiler, Black Coa	1	3%	55%	Black coal	1,87	0,394	9%	7500 kWh/t
Individual boiler, gas	1	3%	80%	Natural gas	1,29	0,277	10%	10 kWh/m³
Individual boiler, Light heating oil	1	3%	80%	Light fuel oil	1,29	0,33	0%	10 kWh/l
				weighted Ø ep	1,73			
Domestic hot water								70 kWh/m³
Diesel								10 kWh/l

Picture 5. ECB Methodology

Calculation of the reduction of carbon dioxide (CO₂) emissions achieved by reducing electricity consumption for heating of public buildings.

The calculations are performed using the following formula:

$$\text{CO}_2 \text{ emission reduction} = \text{Energy consumption reduction (MWh)} \times \text{CO}_2 \text{ emission factor (tons/MWh)}$$

First Round (initial project implementation phase):

- Volume of reduction in electricity consumption: 52,589.26 MWh
- CO₂ emission factor: 0.08 tons CO₂ per 1 MWh
- Reduction of CO₂ emissions: 52,589.26 MWh × 0.08 t CO₂/MWh = **4,207.14 t CO₂**

Second and third rounds (next project phases):

- Volume of reduction in electricity consumption: 131 453.18 MWh
- CO₂ emission factor: 0.068 tons CO₂ per 1 MWh
- Reduction of CO₂ emissions: 131 453.18 MWh × 0.068 tons CO₂/MWh = **9 147.82 tons CO₂**

Accordingly, the total lifetime CO₂ reduction:

⇒ 4 207.14 tons CO ₂ (First Round)	+	⇒ 9 147.82 tons CO ₂ (second and third rounds)	⇒	= 13 354.96 tons CO ₂
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Findings:

- The achieved level of greenhouse gas emission reduction is more than **5 times higher than the planned value**, which indicates the high level of project impact in climate resilience.

Calculation:

$$\text{CO}_2 \text{ savings} = 184,042 \text{ MW} * 0.08 \text{ tons CO}_2 = 14,723 \text{ tons CO}_2$$

Findings:

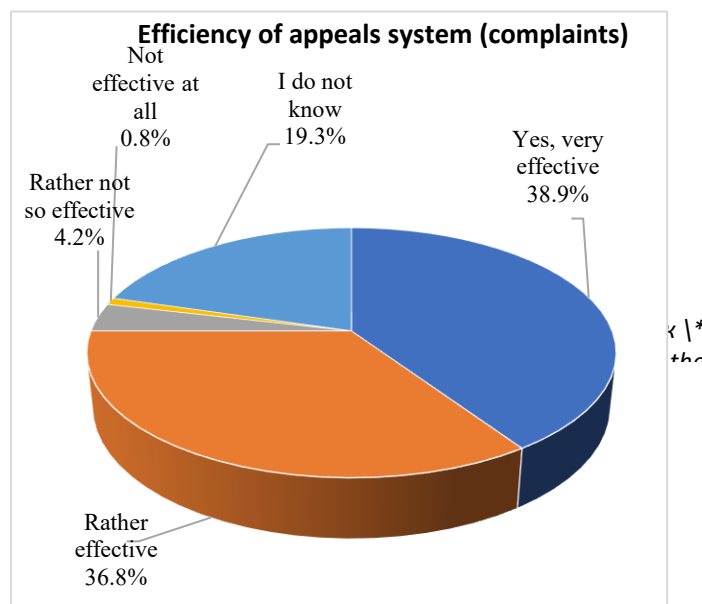
- The achievement of the level of greenhouse gas emission reduction is more than **5 times higher than the planned value**, which indicates a high level of project impact in climate resilience.
- Given the successful climate results, it is recommended to use this indicator for **presenting the project results in international climate reporting (e.g., NDCs, Paris Agreement reports, etc.)**.

7. Percentage of project beneficiaries reported that citizen engagement activities were effective

Target:	50 %
Achievement:	75.7%
% of implementation	100.9%

The overall level of effectiveness of citizens' (beneficiaries') participation in the discussion of service provision issues is about **75.7%**, which is slightly higher than the target (50%). The following data were obtained from respondents' responses to a survey conducted as part of the impact assessment. It should be noted that work with respondents' requests/complaints about these services is being carried out at a fairly good level. Moreover, about 38.9% of respondents noted that it was quite effective, and about 36.8% indicated that it was more or less effective (See Picture 7).

A relatively large percentage (19.3%, approximately one in five) noted that they do not know how effective the complaints and appeals system is, **since they did not make a request for a particular service**, especially following the retrofitting was carried out.



8. Percentage of project beneficiaries reporting that citizen engagement activities were effective

Target:	70 %
Achievement:	96.6%
% of implementation	138%

Picture 7. Efficiency of appeals system

According to the impact assessment, overall satisfaction with these services is an integrated assessment by respondents of the overall comfort received from four key utilities - heating, lighting, ventilation and hot water supply.

As stated in the Survey Methodology, the quality of the services provided is assessed as follows:

- Heating: assessed based on the perception of the adequacy of heat in the premises and the respondents' reaction to unplanned outages.
- Lighting: assessed based on the criterion of adequacy of light in the premises and the level of concern about outages.
- Ventilation (air supply): assessed both by the level of availability of fresh air and the absence of unpleasant odors.
- Hot water supply: assessed by the volume and temperature of hot water supplied.

The final assessment is an aggregated indicator demonstrating the overall comfort in the building following the retrofitting.

Assessment results

The overall level of satisfaction with services (comfort level) following the implementation of retrofitting and energy efficiency measures was 96.6%.

For comparison, according to the results of the Baseline survey, the level of satisfaction was:

- For the 1st phase (1st and 2nd rounds): 63.4%
- For the 2nd phase (3rd round): 37.6%

Thus, the achieved level demonstrates a significant improvement in the perception of the quality of life by beneficiaries in retrofitted buildings.

Table 62. Total Quantitative indicators of the HSIP

Name	Total PDO objective	Round 1	Round 2	Round 3	Indicators for 21 facilities where retrofitting has been completed as of 31.03.2025.	% ratio to PDO	Note
Projected (cumulative) lifetime energy savings (megawatt hour (MWh))	51 850	52 589	77 059	54 394	184 043	355%	The main target indicator was achieved based on the results of completion of 10 facilities
Projected (cumulative) lifetime fuel savings (megajoules (MJ))	186 660 000	189 320 400	277 412 400	195 818 400	662 556 456	355%	The main target indicator was achieved based on the results of completion of 10 facilities
Project Direct Beneficiaries	9 450	3 495	4 328	4 986	12 809	136%	The main target indicator was achieved based on the results of completion of 17 facilities
Percentage of women beneficiaries	50%	54%	56.6%	57%	56%		The final target was achieved after three rounds
Lifetime CO₂ savings	2 590	4 207	5 449	3 699	13 355	516%	The main target indicator was achieved based on the results of completion of 6 facilities
Number of retrofitted buildings	21	6	6	9	21	100%	The final target was achieved after three rounds
Heated area of building after retrofitting	29 100	8 917	19 708	15 292	43 917	151%	The final target was achieved after three rounds
Percentage of project beneficiaries reported improved heating quality	70%				96,6%	138%	The final target was achieved after three rounds
Percentage of project beneficiaries who noted the effectiveness of citizen engagement activities (%)	50%				75,7%	101%	The final target was achieved after three rounds
Number of detailed energy and seismic audits	21	6	6	9	21	100%	The final target was achieved after three rounds
Number of developed DED	21	6	6	9	21	100%	The final target was achieved after three rounds

Number of signed contracts for retrofitting	21	6	6	9	21	100%	The final target was achieved after three rounds
Number of completed and commissioned facilities	21	6	6	9	21	100%	The final target was achieved after three rounds

Baseline survey

In order to identify the baseline indicators for Component 2 of the Heat Supply Improvement Project, on April 15, 2021, a contract was signed with the consortium of **AC Consulting LLC** and the **Rural Municipalities Development Center** to conduct a baseline survey for Rounds 1 and 2.

Subsequently, to ensure methodological continuity and uniform approaches to data collection and analysis, a direct contract was concluded with the same consortium for the provision of consulting services for the baseline survey for the 3rd round of the project. This contract covered the period from August 18 to November 30, 2022.

This decision made it possible to maintain a uniform approach to the methodology, ensuring comparability of data across all three rounds of Component 2 implementation.

As part of **Component 2**, aimed at demonstrating the benefits of energy efficiency in public buildings, a survey was conducted to assess the **initial conditions for operating conditions of building, user awareness and perception of the comfort of the environment** prior to the start of retrofitting and information and awareness-raising activities.

The main objective of the survey:

- to obtain objective and comprehensive information on the state of heat supply, microclimate, energy consumption levels,
- the awareness and behavioral attitudes of beneficiaries towards energy efficiency.
- to form a baseline for the subsequent assessment of the achieved effect of the implemented measures.

Object of survey:

A total of **21 buildings** were covered during the survey:

- **Phase 1:** 12 facilities selected during the first and second retrofitting rounds (first survey);
- **Phase 2:** 9 facilities included in the third round (second survey, conducted later due to the later selection of buildings).

Methodology:

The survey was conducted using a **mixed approach** combining quantitative and qualitative methods of data collection and analysis. All tools were standardized and agreed upon by the technical project team, ensuring data comparability between rounds and different types of facilities.

Methods used:

1. Questionnaire of beneficiaries:

- target groups: students (9-11 grades), parents, teachers, health and administrative staff;
- questions covered perceptions of indoor temperature, use of additional heating sources, knowledge of energy efficiency principles, and expectations of the project.

2. Supervision and visual inspection:

- external and internal inspection of buildings;
- recording the presence of damage, the level of heat insulation, the condition of windows, heating appliances and ventilation.

3. Spot measurements of air temperature and humidity:

- measurements of air temperature and humidity using IR thermometers;
- measurements were taken in various rooms and at different times of the day.

4. Analysis of technical documentation:

- survey of building passports, technical conditions, and utilities;
- comparison of documented data with actual operating conditions.

5. Focus groups and interviews (in separate cases):

- gathering more detailed information about users' attitudes towards the conditions of their stay and the project as a whole.

Key categories of participants:

- students and parents;
- teachers and administrative staff;
- technical staff;
- health staff (in case of medical and preventive institution);
- representatives of local communities

Developed tools:

The survey was carried out with help of the following tools developed and approved together with ARIS and World Bank experts:

- Questionnaire for respondents (with consent form),
- Guide and questionnaires for focus groups,
- Questionnaire for in-depth interview.

Objective of the baseline survey was:

- **identification of baseline values of key indicators related to energy consumption level:**
 - for 12 target public buildings selected within the 1st and 2nd rounds, data were collected for the 2019–2020 heating season;
 - for 9 facilities selected within the 3rd round, the assessment was carried out for the 2021–2022 heating period;
- **assessment of the satisfaction of beneficiaries (staff, building users) with conditions in buildings according to four key comfort parameters:**
 - heating,
 - lighting,
 - ventilation (air exchange)
 - hot water supply.

Calculation of sampling and methodology

Sampling for Phase 1: The general population, according to the project documentation, was 9450 people (50% women) across 21 facilities specified in project document (see Component 2 Results Framework¹⁵). Thus, the average calculation per facility was **450** people/facility. Considering that the survey covered 12 facilities during the rounds 1 and 2, the estimated sample was **5400** people. Using an online sample calculator (<https://allcalc.ru/node/100>), at a confidence level of 4%, a sufficient number was determined - **540**

¹⁵ The indicator for “Project Direct beneficiaries under the Component 2 (quantity)” for the fifth year of the Project is 9450 people. The indicator for “Women beneficiaries under the Component 2 (percentage)” for the fifth year of the Project is 50%.

respondents. The number of respondents to the pilot testing, approximately 5% (of the target sample of 540 people), was **26** people.

As a result, the total number of respondents was: 540 people + 26 people = **566** people (for the survey).

Sampling for the 2nd phase: The general population obtained by calculation (by multiplying the average number of beneficiaries per 1 facility by the number of facilities in the 3rd round) is 4,050 people. Calculation of the target sampling (with a general population of 4,050 people) at a confidence interval of +/- 4% leads to 523 respondents (for the survey).

Thus, in total, about **523** people will be surveyed.

The **respondents** to the survey consisted of:

- school students (9-11 grades) receiving educational services in these institutions
- teachers of these educational institutions;
- doctors and medical personnel providing medical services.

Gender composition of participants

According to the results of the survey within the framework of the baseline survey for the facilities of the 1st and 2nd rounds, the **total number of respondents is 566 people**. Among them:

- **Women** - 479 people (**≈ 84.6%**)
- **Men** - 87 people (**≈ 15.4%**)

As part of the second phase of the baseline survey, conducted among the beneficiaries of the **3rd round, 527 people** participated in the survey. Among them:

- Women - 366 respondents (**≈ 69.5%**)
- Men - 161 respondents (**≈ 30.5%**)

A total of **1,093 people** participated in the baseline survey within the three rounds.

- **Women** make up the overwhelming majority - **about 77.3%**,
- **Men** made up **about 22.7%** of all respondents.

This distribution is explained by:

- Traditionally higher presence of women among employees in the educational and health areas;
- Greater accessibility of women to participate in surveys, including due to their involvement in educational and upbringing processes;
- More active participation of mothers in the lives of children in schools and preschool institutions.

Results on satisfaction with building conditions

The survey covered the assessment of **four services**: heating, lighting, ventilation and hot water supply. Each service was assessed on two parameters:

- availability and adequacy (for example, heating, lighting, air, water),
- stability and reliability (for example, outages, odors, water temperature).

General level of satisfaction:

63.4% for the 1st phase (buildings of Rounds 1 and 2) and 37.6% for the second phase (Round 3) of the 2nd phase of respondents noted that they were **satisfied with the conditions** in the buildings prior to the commencement of retrofitting.

The most vulnerable aspects were:

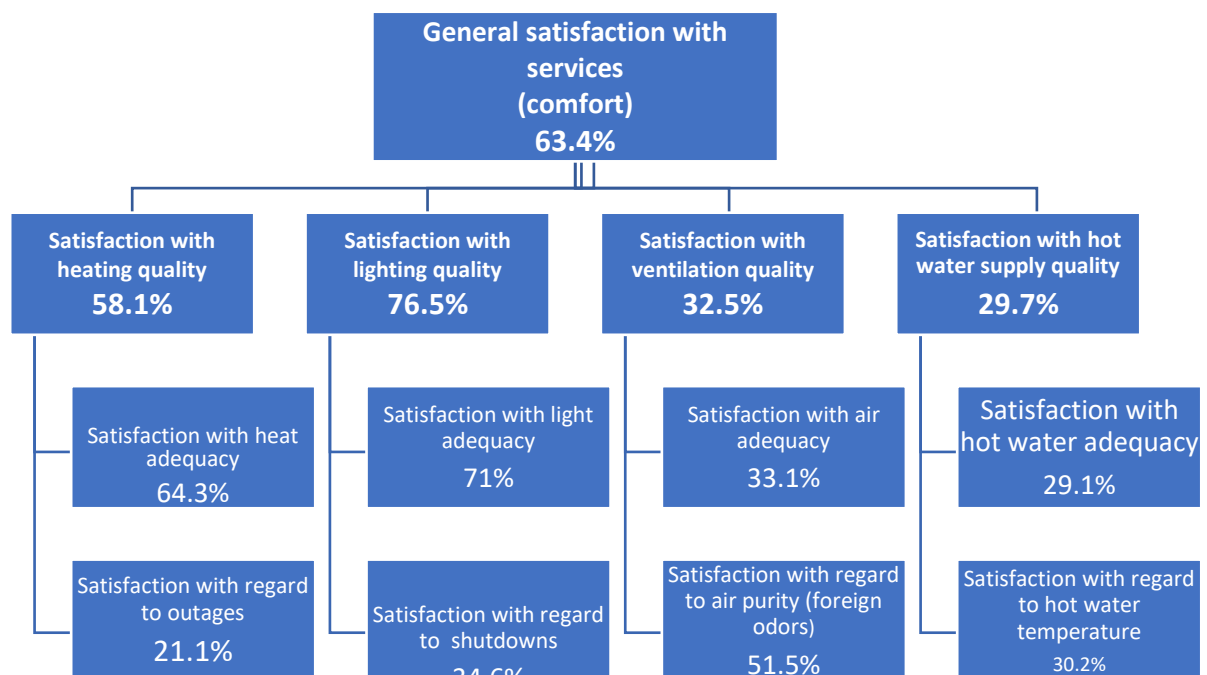
- **insufficient heating and ventilation**, especially in old buildings with ineffective heat insulation,
- **frequent power outages and problems with the quality of hot water.**

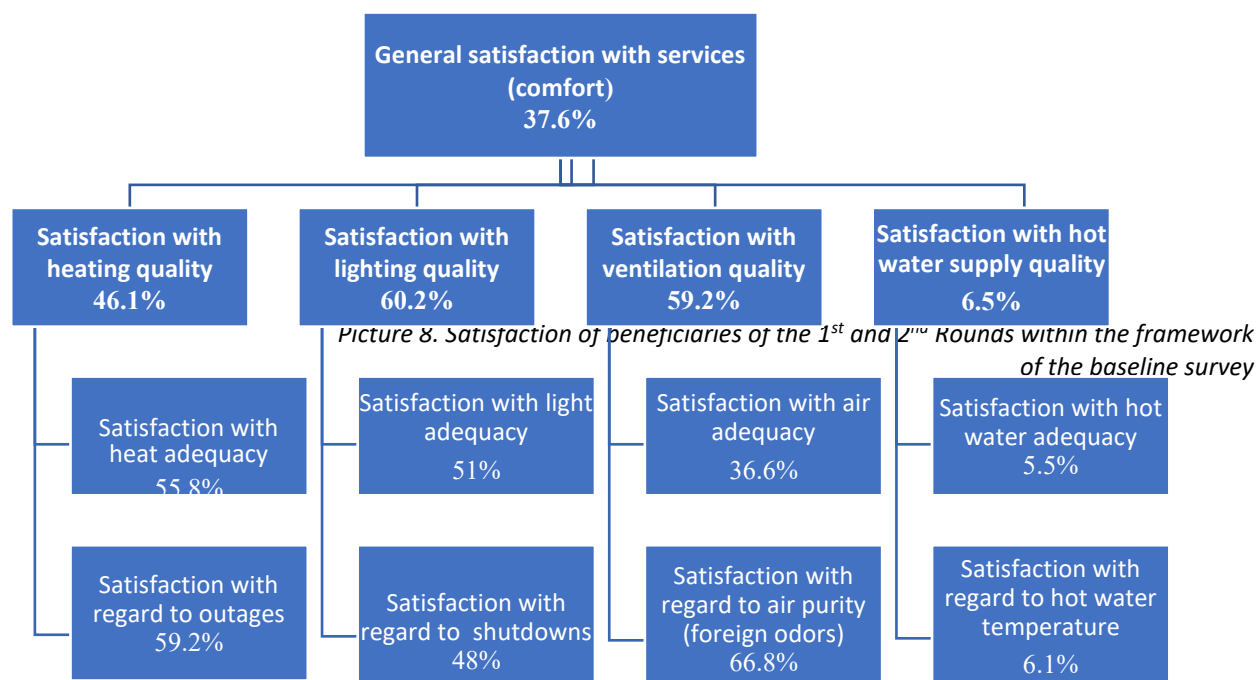
The survey showed that the overall level of satisfaction with services within the **first phase** (comfort level) is insufficient and amounts to only about 63.4% (See Picture 7). That is, less than two thirds of respondents are satisfied with the existing services of heating, lighting, ventilation, and hot water supply.

And in terms of individual service indicators, the situation with the provision of services is also at an insufficiently high level. For example, the satisfaction rating with heating is 58.1%, lighting - 76.5%, ventilation (air supply) - 32.5%, and hot water supply - 29.7%. The lowest satisfaction rates are for ventilation and hot water supply. But it should be borne in mind that in some institutions the ventilation system does not functioning and there are no water heaters, which affected the respondents' answers.

And for the **second phase** in general, the Survey showed that the overall level of satisfaction with services (comfort level) is insignificant and amounts to only about 37.6%. That is, slightly more than a third of respondents are more or less satisfied (and completely satisfied) with the existing services of heating, lighting, ventilation, hot water supply. (See Picture 8). And in terms of individual service indicators, the situation with the provision of services is also at an insufficiently good level.

The lowest satisfaction rate (6.5%) is for hot water supply. And this is understandable, since the institutions have poorly functioning hot water heating systems or they are absent altogether, which affected the respondents' answers. The next insufficient satisfaction indicator is heating. Less than half of the respondents (46.1%) indicated that they are more or less satisfied with the quality of heating. And finally, the satisfaction rates for lighting and ventilation (60.2% and 59.2%, respectively) are also insufficient.





Picture 8. Satisfaction of beneficiaries of the 1st and 2nd Rounds within the framework of the baseline survey

Impact assessment

In the middle of the second half of 2024, a survey was conducted to **assess the impact of the HSIP** to identify the level of satisfaction of beneficiaries following the retrofitting of the building.

Overall satisfaction with these services was an integrated assessment by respondents of the overall comfort received from four services - heating, lighting, ventilation and hot water supply.

As stated in the Methodology of the Survey, the quality of heating was considered in the context of assessing the sufficiency of heat in the premises and the attitude towards unplanned shutdowns. The quality of lighting was also assessed through the sufficiency of the volume of light in the premises and the attitude of respondents towards power outages. The quality of air supply was considered through respondents' assessment of the sufficiency of air in the premises and the attitude towards its "cleanliness", that is, the presence of foreign odors. The quality of hot water supply was also assessed through the sufficiency of the volume of hot water provided and the temperature of the hot water. The survey showed that the overall level of satisfaction with services (comfort level) following the retrofitting was about **96.6%** (previously in the Baseline survey it was only 63.4% for the 1st phase (buildings of Rounds 1 and 2) and 37.6% for the 2nd phase (Round 3) of the Project). That

is, almost all respondents are satisfied with the improved services of heating, lighting, ventilation, hot water supply.

During the survey, a questionnaire was conducted among 378 beneficiaries of 21 public buildings (Rounds 1, 2 and 3) in all regions of the Kyrgyz Republic, including Bishkek.

Sampling. The general population of all beneficiaries for all pilot facilities that were retrofitted prior to the start of the winter season (2023/24) is 9,450 people. Calculating the target sampling for the given general population, with a confidence interval of +/- 5% and a confidence probability of 95%, results in a sampling of 378 respondents (for survey purposes)¹⁶ for 21 facilities.

Among the total number of participants, 73 respondents (19.3%) are men and 305 (80.7%) are women. The high percentage of women among respondents is explained by the fact that the majority of employees of social institutions, such as kindergartens, schools and hospitals, are women. In addition, mothers of schoolchildren and children from the regions actively participate in the surveys, which also contributes to the predominance of women among the beneficiaries.

Thus, the impact assessment complemented the quantitative indicators and provided **multi-level verification** of the results, confirming that the measures implemented not only ensured the physical retrofitting of the infrastructure but also led to an **improvement in the everyday conditions for building users**, which is in line with the sustainable development tasks and objectives set out in the project.

Thus, this Survey showed that the overall level of satisfaction with services (comfort level) following the retrofitting (Table 3) is about **96.6%** (previously in the Baseline Survey it was only 63.4% for the 1st phase and 37.6% for the 2nd phase of the Project).

Type of satisfaction	Indicator, impact assessment (%)	Indicators of baseline survey for Rounds 1 and 2	Indicators of baseline survey for Round 3
Core indicator: General level of satisfaction (comfort)	96.6	63.4	37.6
1. Satisfaction with heating quality	99.7	58.1	46.1
1.a. Satisfaction with heat adequacy	99.2	64.3	55.8
1.b. Satisfaction with heat outages	98.1	21.1	59.2
2. Satisfaction with lighting quality	96.6	76.5	60.2
2.a. Satisfaction with light adequacy	99.2	71.0	51.0
2.b. Satisfaction with power blackouts	99.6	34.6	48.0
3. Satisfaction with ventilation quality	92.3	32.5	59.2
3.a. Satisfaction with air adequacy	88.9	33.1	36.6

¹⁶ <https://socioline.ru/rv.php>

3.b. Satisfaction with air purity	99.6	51.5	66.8
4. Satisfaction with hot water supply quality	81.0	29.7	6.5
4.a. Satisfaction with hot water supply adequacy	83.3	29.1	5.5
4.b. Satisfaction with hot water supply temperature	85.2	30.2	6.1

Table 64. Comparative satisfaction indicators of Component 2 beneficiaries based on impact assessment and baseline survey

Information on citizens engagement

As is known, the Heat Supply Improvement Project (HSIP) does not belong to the Community-Driven Development (CDD) category of projects. It should be noted that the objectives and structure of Component 2 “Demonstrating the Benefits of Energy Efficiency Improvements in Public Buildings” are focused on technical improvements and increasing the energy efficiency and seismic stability of buildings, which requires a professional approach and implementation of engineering solutions. In this context, the emphasis is on retrofitting of infrastructure, rather than on the full engagement of local communities in the decision-making process. HSIP is aimed at retrofitting of buildings, increasing energy efficiency and improving heat supply for end users.

The project is financed and managed through specialized government agencies, with the involvement of contractors, which distinguishes this project from typical CDD projects, in which local communities play a leading role in management and implementation. The engagement of local residents is more consultative and informative, rather than having a decisive influence on key technical decisions of the project. However, efforts were made to engage citizens during the project implementation, which is an important element of social responsibility and is in line with the World Bank's recommendations on stakeholders inclusion:

Establishment of Building Users Committees (BUC)

In order to engage citizens in the project, for each building to be retrofitted, a building user committee was established by order of the head of the local government among local residents, which included key stakeholders, such as building employees, parent committees, administration, representatives of the mayor's office and NGOs. The building user committees performed a partnership function at the building level, ensuring additional interaction with contractors and ARIS. The building user committees monitored the implementation of works at the local level, measured progress, resolved emerging problems and ensured transparency of retrofitting.





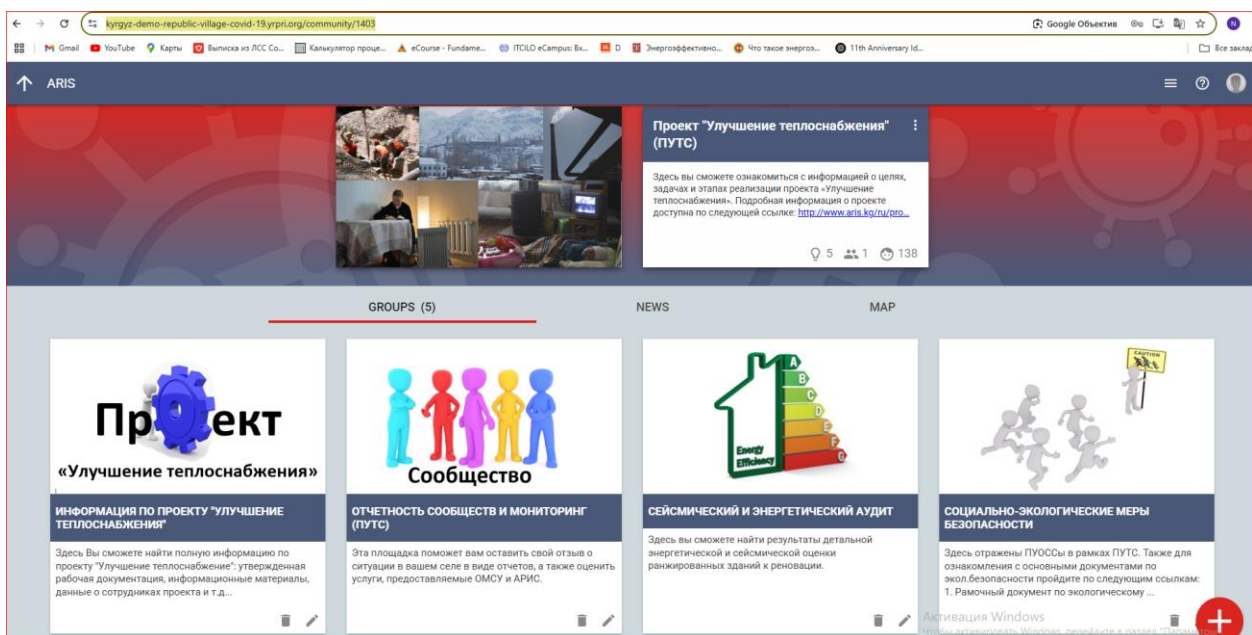
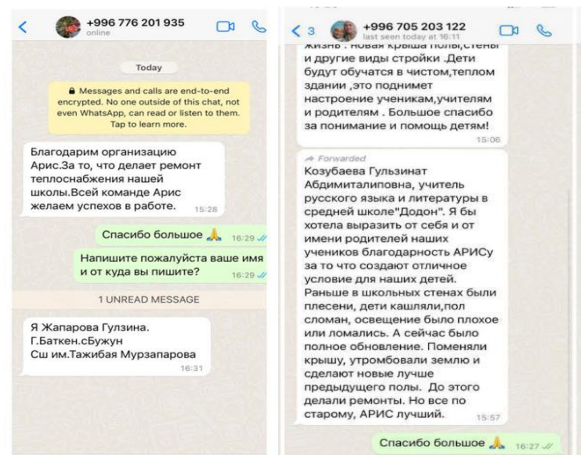
This also became an important tool for citizens engagement, as it gave them the opportunity to directly participate in the project and control its implementation. To date, upon signing of cooperation agreements between the AO, ARIS and the building administration, 21 building user committees have been established, which are responsible for monitoring and implementing of retrofitting. All members of the building user committees passed training from project staff, during which the timing and procedure for joint monitoring were clarified. A total of 105 members were involved in the committees, 51 of whom were women (49% of the total). The BUC also created WhatsApp groups to share monitoring results, retrofitting updates and photographs.

Online platform

In addition to face-to-face meetings with beneficiaries, ARIS also launched an online platform to inform and receive feedback on project. 21 pages were created for the buildings being retrofitted, which contributed to increased transparency and stakeholders engagement.

To date, approximately 1,652 comments containing opinions, remarks and suggestions from the public regarding the facilities which passed retrofitting have been received via the online platform. This has made it possible to quickly take into account the requests of beneficiaries and adapt project activities in line with local expectations.

These tools allow any stakeholder to submit a question, request, complaint or suggestion regarding the implementation of both the current project and other programs administered by ARIS. This approach has ensured two-way communication and increased trust among target groups.



Contribution of HSIP Component 2 in achievement of Sustainable Development Goals (SDG)

Component 2 of the Heat Supply (HSIP) Improvement Project, aimed at demonstrating the benefits of the energy efficiency improvements of public buildings, has a direct and indirect impact on the achievement of a number of Sustainable Development Goals enshrined in the UN Agenda for the period up to 2030.

The contribution to the achievement of the Sustainable Development Goals (SDGs) under Component 2 is implemented through the activities of Subcomponent 2.1:

- Activity 1: Investing in energy efficiency improvements in selected public buildings;
- Activity 2: Energy efficiency building capacity.

Both areas together contributed to the achievement of a wide range of SDGs, delivering both infrastructural and institutional changes.



Activity 1: EE investments in selected buildings

This area covered all technical activities, including heat insulation, replacement of windows and doors, modernization of heating, water supply and ventilation systems, installation of metering devices and other retrofitting work.

Contribution to SDG:

- **SDG 3. Health and prosperity (3.d):**
Improved temperature conditions, reduced humidity and drafts in the premises contributed to a decrease in respiratory and cold diseases, especially among children and the elderly.
- **SDG 4. Qualitative education (4.a):**
The creation of a favorable microclimate in educational institutions has increased the concentration of students, reduced the number of classes missed due to illness, and generally improved the quality of the educational process.
- **SDG 5. Gender equality (5.5):** Women, as the main category of employees of institutions (teachers, educators, nurses), received safer, more comfortable and professionally suitable working conditions. This also contributed to the reduction of professional burnout and improvement of motivation
- **SDG 7. Energy efficiency (7.3):**
Reducing the consumption of heat and electricity through technical measures, increasing the energy independence of buildings is the key contribution of the event to sustainable resource consumption
- **SDG 11. Sustainable cities and settlements (11.3):**
Improving urban and rural infrastructure contributes to sustainable development of territories, including reducing the load on utility and energy networks
- **SDG 12. Efficient resource consumption (12.2):**
The project reduced the level of inefficient use of energy resources, formed the practice of energy savings and the use of resource-efficient technologies
- **SDG 13. Combating climate change (13.2, 13.3):**
CO₂ savings by reducing energy consumption. Through the retrofitting of buildings, the project contributed to the adaptation of infrastructure to climate risks and the resilience of communities

- **SDG 17. Partnerships for sustainable development (, 17.17):**
The event facilitated the establishment of working links between central and local governments, educational institutions, civil society and international donors.

Activity 2: EE capacity building

This included conducting educational events, trainings, information campaigns and dissemination of methodological materials among project teams, local authorities, contractors, service personnel of institutions and building users.

Contribution to SDG:

- **SDG 4. Qualitative education (4.7):**
Improving the qualifications of specialists involved in the management of public buildings, including technical staff and local governments
- **SDG 5. Gender equality (5.5):**
Ensuring the participation of women in training and educational activities, including women administrators and technical staff, has strengthened their role in decision-making at the institutional level
- **SDG 7. Energy efficiency (7.3):**
Expanding knowledge in energy savings among all levels of project participants increased the effectiveness of implementation of technical measures and the sustainability of the results
- **SDG 12.8. Education for sustainable development:**
Through information and educational activities, the project formed a long-term responsible attitude towards resources among employees of institutions and local authorities.
- **SDG 13.3. Raising climate awareness:**
Incorporating climate aspects into training modules and communications has contributed to increased environmental awareness and adaptation of building users' behavior
- **SDG 16.10. Access to information:**
Regular reports, open information events, publications on the ARIS website ensured transparency and accessibility of information on project progress
- **SDG 17. Partnerships for sustainable development (, 17.17):**
The event facilitated the establishment of working links between central and local governments, educational institutions, civil society and international donors.

HSIP Component 2 is an example of an integrated approach to sustainable development: through technical measures on energy efficiency, it simultaneously contributes to improving the quality of education and health, gender equality, climate risk reduction and local community development. Component 2 demonstrates how investments in infrastructure modernization can become a multidisciplinary contribution to the implementation of the SDG agenda in practice.

CONCLUSION AND FINDINGS

Key lessons learned

The implementation of the project under Component 2 has identified several key lessons and challenges that may be useful for future investment projects in heating public buildings in the Kyrgyz Republic, as well as for the broader development of the heating sector in the country. Taking into account the challenges and successful solutions identified, the following conclusions and recommendations can be formulated:

1. Careful preparation and energy audit at the early phases.

Walkthrough energy audits of buildings ensured precise identification of priority facilities for retrofitting, ranking according to energy consumption and social significance indicators, and realistic planning of

activities. For future projects, strengthening the preparation phase with more detailed technical surveys and taking into account the climatic features of the regions will improve the accuracy of calculations and the effectiveness of activities.

Problems encountered by Component 2 and solutions:

- **Shortage of energy audit specialists in the market.** To eliminate the shortage of energy audit specialists in new projects, active training and preparation programs should be established, which will create the required personnel reserve.
- **The occurrence of discrepancies between the data in the building's technical passport and the actual indicators identified during measurements.** To eliminate discrepancies between the data in the technical passport and the actual measurement results, a detailed check was carried out during walkthrough audits before the list of facilities for participation in the project was approved. This approach ensured the reliability of the initial data and eliminated potential errors.
- **Some buildings initially did not comply with the current Sanitary Rules and Standards.** This problem mainly affected health facilities, where a complete re-profiling was expected at the expense of project funds. However, this turned out to be impossible due to high costs and inconsistency with the project objectives

2. Coordination at all levels of management.

Experience has shown that strong support from local self-government bodies (LSGB) and close cooperation with government agencies such as the Ministry of Finance, the Ministry of Energy, the Ministry of Education and the Ministry of Health play a critical role in ensuring access to facilities, solving logistical problems and coordinating activities. Future projects should strengthen local engagement, for example by holding training workshops for local administrations on energy efficiency and the operation of retrofitted facilities.

Problems encountered by Component 2 and solutions:

- **Lack of alternative buildings for the relocation of students and staff during retrofitting.** When selecting facilities, special attention will need to be paid to the municipality's ability to provide alternative premises for the temporary accommodation of students and staff during the retrofitting period. Municipalities will be required to confirm their willingness to provide such premises in advance, and this will be a mandatory condition for the facility participation in the project. This approach will avoid delays in relocation during implementation, preventing the project from slowing down.
- **Inactive participation of local governments during retrofitting, lack of engineering supervision.** When submitting an application, municipalities shall confirm the availability of engineering supervision, which will be present at all phases of retrofitting. Engineering supervision shall be provided at the expense of municipal funds, which will increase responsibility and ensure control over all phases of work. This mandatory requirement will contribute to increasing local responsibility and improving quality control of the work performed.

3. Comprehensive planning and accounting of retrofitting. The project was initially focused on improving energy efficiency and seismic stability, but some facilities required additional retrofitting work.

Problems encountered by Component 2 and solutions:

- **Lack of envisaged funds for retrofitting, funds were provided only for improving the energy efficiency and seismic stability of buildings.** In future, it is required to budget funds for repairs following the retrofitting, since municipalities, as a rule, do not have the necessary funds for such measures. This will facilitate a comprehensive approach aimed at improving both energy efficiency and the overall safety of buildings.

4. Systematic training and professional development. Under Component 3, training was organized for local government employees, public building administration, and technical personnel. However, practice has shown that sustainable results require a more in-depth and systematic approach to training.

Problems encountered by Component 2 and solutions:

- **On-site monitoring process: frequent staff turnover, lack of measuring devices.** As part of the preparation of design and estimate documentation (DED), it is required to envisage the procurement and installation of the necessary monitoring devices, such as devices for measuring air humidity and temperature both indoors and outdoors, preferably with remote control.
- **Human factor: during inspections of facilities, some beneficiaries habitually use the old method of ventilation - by opening windows.** It is required to conduct additional information campaigns aimed at raising public awareness of the importance of energy efficiency and energy saving.

5. **Flexibility in planning and risk management.** To ensure successful implementation of activities, once facilities have been agreed and work has been planned, external risks and seasonal features shall be taken into account. The COVID-19 pandemic has shown that projects shall include mechanisms to quickly respond to force majeure. Future projects are encouraged to develop backup plans and mechanisms for rapid adaptation in emergency situations.

Problems encountered by Component 2 and solutions

- **Incorrect planning of work schedules by contractors due to seasonal conditions.** During pre-bidding meetings, contractors should be made aware of the obligation to take into account climatic and seasonal features when preparing a work schedule. This will help to minimize the risks of downtime and ensure that work is completed within the optimal time frame.
- **Unscrupulous contractors who underprice tenders, which leads to delays.** To avoid situations where contractors win a tender at underpricing but fail to complete the work on time, it is required to conduct additional discussions of materials prices and check market prices. It is possible to additionally include penalties in the contract terms.
- **Lack of energy-saving devices on the market (recuperators, heat insulation materials of a certain density) - imported from other countries.** At the design and selection phase of materials, consultants will need to take into account the availability of energy-saving devices, building materials and equipment on the local market, which will avoid supply issues and ensure continuity of work at the facility.

6. **Role of International Financial Institutions.** International financial institutions, such as the World Bank, played a key role in the successful project implementation. Financial and technical support, monitoring of the implementation of activities and assistance in resolving administrative issues allowed Component 3 to achieve its stated indicators.

Problem encountered by Component 2 and solutions:

- **The process of coordinating each procedure with donors delays the implementation process.** To expedite the process of coordinating and minimize delays, a simplified and transparent mechanism for interaction with donors should be developed. The procedure for coordinating should be clearly specified, and the main decisions should be agreed upon in advance to avoid bureaucratic delays.

7. **Increasing public awareness.**

The human factor remains critically important in the operation of retrofitted facilities. Increasing public awareness of the importance of energy efficiency contributes to a more responsible use of resources.

Problem encountered by Component 2 and solutions:

- **Low level of awareness about energy saving among the population.** Information campaigns and trainings on energy efficiency and energy saving should be launched.

Conclusion:

Thus, the successful implementation of Component 2 has revealed both strengths and growth points that will allow for more effective preparation for the next phases of retrofitting. The solutions proposed to address the problems encountered will help to increase the sustainability and effectiveness of future energy efficiency projects for public buildings in the Kyrgyz Republic.

Component 2 has demonstrated significant improvements in the energy efficiency of public buildings. The measures implemented contribute to resource savings and improved quality of educational and medical services.

Recommendations:

- **Expansion of the project** to other regions;
- **Continuation of monitoring** the effectiveness of the implemented solutions;
- **Further development of energy efficiency programs** in the country;
- **Development of a methodology** for long-term monitoring of the results of retrofitting

Annex 1. Project results framework

Project Development Objective Indicators by targets/Results

Indicator name	Baseline value	Intermediate targets					Final targets
		1 (2019)	2 (2020)	3 (2021)	4 (2022)	5 (2023-2024)	
Projected lifetime fuel savings under the Component 2 (megajoules (MJ))	0.00			62 165 838.00	124 331 676.00	186 497 514.00	186 497 514.00
Percentage of project beneficiaries reported improved heating quality under Component 2 (Percentage)	0.00	0.00	50.00	60.00	70.00	70.00	70.00
Number of retrofitted public buildings	0.00	0.00	7.00	14.00	21.00	21.00	21.00
Projected (cumulative) lifetime energy savings for Component 2 (megawatt-hour (MWh))	0.00	0.00	0.00	17 269.00	34 536.00	51 805.00	51 805.00
Projected (cumulative) lifetime CO ₂ savings for Component 2 (tons/year)	0.00	0.00	0.00	864.00	1 726.00	2 590.00	2 590.00
Project Direct Beneficiaries under Component 2 (quantity)	0.00	0.00	3 150.00	6 300.00	9 450.00	9 450.00	9 450.00
Female beneficiaries under Component 2 (percentage)	0.00	50.00	50.00	50.00	50.00	50.00	50.00
Percentage of project beneficiaries who reported effectiveness of citizen engagement (%)	0.00						50.00