

KVESHETI-KOBI ROAD

FREQUENTLY ASKED QUESTIONS



KVESHETI-KOBI

NEW WAY OF DEVELOPMENT

1. WHAT IS THE PURPOSE OF THE KVESHETI-KOBI ROAD PROJECT?

The aim of the Kvesheti-Kobi road project is to unlock the development of the region and enable continuous, safe movement at any time of the year. This opportunity is currently unavailable for an average of 100 days a year, due to severe climatic conditions.

The new road will facilitate the connection of the local population with the outside world; it will promote tourism, reduce travel time and costs, increase Georgia's transit

2. WHAT ARE THE MAIN ADVANTAGES OF THE KVESHETI-KOBI ROAD PROJECT?

As a result of the project, the risk of traffic accidents and travel time will be reduced, in contrast to the existing road. The total length of the road will be reduced by 11 km, therefore, travel time from Kvesheti to Kobi will be reduced to 15 minutes instead of 1 hour. The 9 km tunnel will ensure the transit of cargo at any time of the year.

Infrastructure will be improved and road safety ensured, including the possibility of avoiding the danger caused by bad weather (avalanche, heavy snow).

In addition, living conditions of the local population will be improved. The new road will facilitate the connection of the local population with the outside world, thus contribut-

3. WHAT DOES THE KVESHETI-KOBI ROAD PROJECT INCLUDE?

Construction of 23 km long, 2-lane asphalt-concrete road, 5 bridges and 5 tunnels, as well as rehabilitation of 1 bridge is planned within the framework of the Kvesheti-Kobi road project. The total length of the tunnels is 11.5 km. The longest tunnel is 9 km long and 15 meters in diameter. These figures place the mentioned tunnel among the most unique tunnels in the world. The tunnel will start near the village Tskere and end in the village Kobi. The rest of the tunnels will be relatively small (1541 m, 194 m, 388 m and 299 m).

The total length of the bridges is 1.6 km. One of the bridges will be a 426 m long, with 166 m high arched bridge; it presents a case of a very difficult engineering construction. Its arch is 285 meters long and, at this stage, has no analogue in Georgia. From an architectural point of view, the bridge will be organically incorporated into the existing landscape and in the future will be considered as one of the sights of Georgia. The rest of the bridges will be relatively small (322 m, 218 m, 148 m and 42 m).

In addition to the main road infrastructure components, a visitor center will be established under the project. This facility will act as a potential center for agricultural business, conservation, ecotourism development and sustainable community development in the project area. The residents of Khada Valley will directly benefit from the visitor center, established in the framework the project.

4. WHAT IS THE COST OF THE PROJECT AND WHAT IS ITS SOURCE OF FUNDING?

The total construction cost of the project is 1.2 billion GEL. In addition to the state budget of Georgia, the construction works are financed by the Asian Development Bank and the European Bank for Reconstruction and Development (EBRD).

5. WHEN WILL CONSTRUCTION BEGIN AND HOW LONG WILL IT LAST?

The project is divided into 2 contracts. The contracts were signed with the construction companies in 2019 and construction started in 2021, despite the COVID-19 situation. The duration of construction works is expected to last 4 years until 2024.

6. WHICH COMPANIES CARRY OUT CONSTRUCTION WORKS?

The works are being carried out by:

Lot 1: Tunnel section – China Railway Tunnel Group Co., Ltd. (CRTG);

Lot 2: Road section – China Railway 23rd Bureau Group Co (CR23);

And supervised by: international supervision company UBM INTERNATIONAL UNITED CONSULTANTS INC. (UBM), chosen via international procurement procedure.

7. FROM AN ECONOMIC POINT OF VIEW, HOW PROFITABLE IS IT FOR THE STATE TO INVEST THE AFOREMENTIONED AMOUNT OF LOAN FOR THE INDICATED SECTION OF THE ROAD? HOW WILL IT BENEFIT GEORGIAN ECONOMY?

The Kvesheti-Kobi section construction project is a distinctive project; it is based on a preliminary feasibility study conducted with the support of the World Bank, followed by a feasibility study and finally, a detailed project which was prepared based on the research and taking into account the recommendations of specialists.

Based on these studies, the alignment selected for the Kvesheti-Kobi section was identified as “the best solution in terms of all analyzes (technical, economic, CBA – cost-effectiveness analysis, MCA – multifunctional analysis).

The Kvesheti-Kobi road project is economically profitable for the state and the population of the country. The project will employ over 600 people, most of whom will be local residents. In addition, during the project, the employed people will need food provision and shelter. This, in turn, will create new jobs and indirectly employ many locals.

After the completion of the project, new tourist destinations will be created, an interesting and attractive prospect for both tourists and investors.

Additionally, a 5 km access road to Gudauri and a tourist center will be constructed, thus ensuring a more comfortable and safer commute and establishing a tourist attraction.

Social activities and trainings to help the local population benefit from the increased tourism opportunities following the improved infrastructure will take place within the framework of the project.

In addition to the tourism development, transit traffic should be noted as well. Kvesheti-Kobi road will provide transit cargo traffic at any time of the year, increase throughput, reduce travel time and costs, which, in turn, will have a positive impact on Georgia's transit potential, affecting its position as a regional transit and logistics hub.

8. HOW WAS THE ROUTE SELECTED?

Project feasibility studies had been prepared, as well as social and environmental impact assessments, stakeholder engagement plan and other technical reports.

At the stage of preparation of preliminary technical-economic substantiation, the project was divided into three sections: 1. Zhinvali-Kvesheti; 2. Kvesheti-Kobi; 3. Kobi-Lars; the Kvesheti-Kobi section was considered a particularly critical section due to the circumstances under consideration. In turn, three corridors were identified on the Kvesheti-Kobi section (2), up to 40 primary alternatives (including zero alternative – not executing the project) were considered, nine different alternatives were developed and explored.

The four alternatives proposed by the qualified experts of the international consulting organization were selected in the final report of the preliminary feasibility study, as a result of a multifunctional analysis. Subsequently, preparation of a more detailed feasibility studies was continued on the mentioned four alternatives.

Preferred direction was selected for each section, in line with the feasibility study. Appropriate alternatives were strongly recommended for each section, based on the multifunctional analysis that includes functional (route geometry, projected traffic intensity, number of road users, reduced travel time and costs), economic (total investment cost, total maintenance costs, economic benefits including the returns), environmental and social criteria (biodiversity, surface waters, groundwater, protected areas, soil and air pollution, landscape, resettlement needs, noise, vibration, cultural heritage sites, impacts on local population during construction and road use, frequency of traffic accidents)..

Accordingly, the selected Kvesheti-Kobi alternative was determined as the best solution, taking into account all the factors (technical, economical, in terms of CBA cost-effectiveness analysis and MCA multifunctional analysis).

9. HAS THE CONSTRUCTION OF THE RAILWAY BEEN DISCUSSED IN THE PROCESS OF RESEARCHING ALTERNATIVES? AND IF SO - WHY WAS THIS IDEA REJECTED?

Due to the strict minimum geometric parameters of the railway, even at the hypothetical level, its construction would be associated with colossal expenditures, and excessive damage to the environment. By their very nature, the road and rail net-

work serve a variety of transits, transports and customers. Thus, highway option was considered during alternatives research.

Currently, there is no railway network on the North-South corridor. The construction of a railway to the north to the Russian Federation would have far more negative environmental impacts than the improvement of the existing road network, as it would be necessary to build the entire railway from Tbilisi.

10. HOW WERE CONSTRUCTION COMPANIES SELECTED?

Procurement of the construction works of both contracts of Kvesheti-Kobi – road section and tunnel section (length 9 km) was carried out in accordance with all international procurement rules, according to the Procurement Regulations for ADB Borrowers developed by the Asian Development Bank.

The winner of the tunnel construction works was the company with the lowest price, meeting all the qualification requirements of the tender: China Railway Tunnel Group Co. Ltd. The winner of the access road construction works was the company with the lowest price, meeting all the qualification requirements of the tender: China Railway 23rd Bureau Group Co., Ltd.

11. WHAT METHODS WILL BE USED IN THE CONSTRUCTION?

The tunnel boring machine TBM will be used for the largest tunnel (9 km long and 15 m in diameter) it is the most modern, sophisticated method with minimal noise. TBM has the least impact on the environment and vibration is minimized. As for the construction of the other 4 small tunnels, open tunneling and drilling-blasting methods will be used, the detailed methodology of which will be determined and selected on the spot so as to minimize the impact on the natural and social environment.

12. WHAT ROUTE DOES THE ROAD COVER AND WHICH VILLAGES WILL BE INCLUDED IN THE PROJECT AREA?

The following villages will be included in the area of the new Kvesheti-Kobi highway: Kvesheti, Arakhveti, Zakatkari, Beniani-Begoni, Sviana-Rostiani, Mughure, Tskere and Kobi.

More specifically, according to the project, a new road will begin at the village of Kvesheti. Its initial section coincides with the existing road. The road then crosses the White Aragvi River near the village of Arakhveti via a 492-meter-long bridge and enters a tunnel with a slope of 4.5% that leads to the Kvesheti Plateau. From here the route continues to the village of Zakatkari, after which a new road crosses the river Khadistskali with a 164-meter-high arched bridge. Then two more bridges and two tunnels are needed to reach the Begoni Plateau. After the shielding tunnel, the road passes on the right bank of the river via another bridge and leads to the village of Tskere, from where it ends through a 9-kilometer-long tunnel in the village of Kobi.

13. THE ROAD WILL PASS CLOSE TO THE VOLCANIC ZONE. HOW DANGEROUS IS IT?

The existence of "volcanic rocks" is not a prerequisite for the activation of volcanic processes. According to geological studies, there is no danger of volcanic eruptions; Moreover, volcanic rock is a suitable material for construction.

14. DOES THE HIGHWAY INCLUDE ACCESS ROADS TO SMALL SETTLEMENTS?

Yes, access roads to local homes will be maintained or improved, as needed. Thus, it will connect villages and rural communities to the highway, which in itself implies access to larger markets, improved social services and greater economic opportunity.

15. WHY WAS THE EXISTING ROAD NOT REHABILITATED? AND WAS IT NECESSARY TO BUILD A HIGHWAY?

The option of upgrading the existing road was also considered at the project feasibility stage. Possible small-scale works to be carried out included repairing the existing road, adding protective barriers and tunnels, repairing retaining walls, buildings and cut slopes. However, even after these works, considering the forecast of traffic intensity increase on this section, in these climatic conditions, the general functionality, safety and durability of the road would still remain unsatisfactory and non-compliant with the European standards.

A larger-scale update of the section was also revised. In such a case, a radical change of inclination would be necessary, made possible only by making deep cuts in the slopes, by building new tunnels, bridges and other constructions. Such works require the complete closure of certain sections of the road over the years, thus creating major delays and economic problems for the country. In addition, from a geological point of view, the existing road carries a high risk of avalanches and landslides. Also, a 6 km section of this road runs through Kazbegi National Park. Consequently, the construction work would have a significant negative impact on the biodiversity present here. With all this in mind, upgrading an existing road was ruled out.

16. WHAT ALTERNATIVES WERE CONSIDERED FOR THIS ROUTE AND WHY WERE THEY REJECTED?

At the stage of preparation of preliminary technical-economic substantiation, the project was divided into three sections: 1. Zhinvali-Kvesheti; 2. Kvesheti-Kobi; 3. Kobi-Lars; the Kvesheti-Kobi section was recognized to be a particularly critical section considering the circumstances. Three corridors were identified in the Kvesheti-Kobi section (2), for which up to 45 initial alternatives (including zero, non-project implementation alternative) were considered, nine different alternative directions were developed and explored.

In the final report of the preliminary feasibility study, as a result of a multifunctional analysis, the four alternatives proposed by the qualified experts of the international consulting organization were preferred and the preparation of more detailed feasibility studies was continued on the mentioned four alternatives.

According to the feasibility study, the preferred direction was selected for each section. Based on the multifunctional analysis that includes functional (route geometry, projected traffic intensity, number of road users, reduced travel time and costs), economic (total investment cost, total maintenance costs, economic benefits), environmental and social criteria (biodiversity, surface waters, groundwater, protected areas, soil and air pollution, landscape, resettlement needs, noise, vibration, cultural heritage sites, impacts on local population during construction and road construction, road construction frequency), appropriate alternatives were strongly recommended for each section.

Accordingly, the selected alternative was determined as the best solution, taking into account geological conditions, natural disasters, orography, road parameters, connection with Gudauri resort and existing villages, comprehensive technical and social environmental assessments, also in terms of CBA (cost-effectiveness analysis) and MCA (multifunctional analysis).

17. DOES THE PROJECT PROVIDE A WALKWAY FOR PEDESTRIANS?

According to international standards, the movement of pedestrians on the highway is prohibited. However, footpaths and pedestrian/cattle crossings will be constructed along the road at suitable locations for the local communities.

18. HOW WILL NOISE AND VIBRATION PROBLEMS BE REGULATED DURING THE CONSTRUCTION PROCESS?

The works contractors are required to create site-specific environmental management plans. The contractors will constantly monitor the process and if vibration or noise level exceeds the standards, mitigation measures will be taken, for example, to reduce the impact of noise and vibration using various equipment, or working methods.

In order to reduce negative impact on the local population, construction camps will be moved away from the settlement in accordance with the current environmental protection standards in Georgia.

In addition, a special tunnel boring machine TBM will be used for the construction of the largest, 9 km long tunnel. TBM is the most modern, sophisticated and silent method. It has the least impact on the environment and is characterized by low vibration.

19. WILL THE OPINION OF THE LOCAL POPULATION BE TAKEN INTO ACCOUNT IN THE CONSTRUCTION PLANNING PROCESS?

Meetings with stakeholders and the population of Khada Valley will continue throughout project implementation. Representatives of the Roads Department and the Asian Development Bank attended meetings with the local population, held in Spring, Summer and Autumn of 2021; an agreement was reached with the local population on a number of issues, in particular:

- Existing access road to Tskere will be maintained and improved;
- Before the start of the construction activities in Tskere, explosions will be simulated and vibration will be strictly monitored. Detailed description and marking of all buildings will be done in advance. In the event of any danger to the houses, temporarily resettlement of the residents will be implemented and the buildings will be subject of further redemption or fortification;
- The Roads Department will provide hard copy of an environmental impact assessment (EIA) document to the Tskere local residents once again;
- Availability of the water resources and their locations was studied in advance to avoid the risk of water loss during the construction. In case of water loss, its restoration and supply will be ensured/delivered;
- The implementation of the Khada Valley Development Plan is planned to start in January 2022. Prior to this, preliminary consultations will be held with the locals in order to take into account their interests as much as possible;
- There are 8 objects in Tskere, two of which have the status of a cultural heritage monument (Naraidze Castle Tower and Zakaidze Tower). Conservation works are planned on these 2 towers. Heritage monuments will be monitored during the construction process.

20. WHAT KIND OF BENEFITS WILL THE LOCAL POPULATION RECEIVE AS A RESULT OF THE IMPLEMENTATION OF THIS PROJECT?

The Kvesheti-Kobi road will bring economic benefits to local population in terms of increasing trade and developing tourism in various directions.

A visitor center will be established under the project. This facility will act as a potential center for agricultural business, conservation, ecotourism development and sustainable community development in the project area. The residents of Khada Valley will directly benefit from the visitor center, established in the framework the project. It aims to promote conservation and sustainable ecotourism in Georgia.

In addition to the economic benefits, social services will be available as a result of the project. The new road area will include 10 villages: Kvesheti, Arakhveti, Zakatkari, Beniani, Begoni, Sviana, Rostiani, Mughure, Tskere and Kobi. The living conditions in these villages and in the Khada Valley will be improved as a result of the project. The villagers are cut off from the outside world for approximately 98 days during winter, the villages of the valley are almost empty. There is no grocery store, pharmacy, no medical care available. During severe winter conditions, when the road is

closed, residents have to walk to Kvesheti, which is associated with difficulties and risks.

The new Kvesheti-Kobi road will solve all these problems. The existence of the road will revive the region, grocery stores, pharmacies and medical care will become available. Also, the population will have opportunity and conditions to return to the valley and develop small businesses.

Many activities are planned to help the locals within the framework of the project, such as medical care and entrepreneurship trainings, so that the community can take advantage of the opportunities that the new road will create.

Phase I of the medical program has already been implemented, with the support and organization of the new road project. In particular, the population of Kvesheti and Khada Valley underwent free general medical examination on April 23. The medical brigade conducted at-home consultations for those patients, who were unable to visit the examination sites due to their conditions. As part of the program, patients were given medicine per doctor's prescription.

21. WHAT ARE THE BENEFITS OF THE NEW ROAD IN TERMS OF CAR SAFETY?

The length of the existing road is 34 km. After completion of the project, this length will be reduced by 11 km to 23 km, which will accordingly reduce travel time and costs. The road will be open for 12 months during all seasons (currently closed for a total of 100 days a year due to snow and avalanches). Travel time from Kvesheti to Kobi will be 15 minutes, instead of 1 hour.

In the last 5 years (2015-2020), 27 people have been killed and 331 injured in accidents on the existing road.

The new road will be built with international standard geometric parameters, road lights, pedestrian / cattle crossings and other road safety features, making travel significantly safer. In addition, segregating transit traffic on the new road by redirecting particularly heavy vehicles currently passing through Gudauri and other settlements, will significantly improve safety and reduce disturbances.

22. HOW WILL THE PROJECT HELP DEVELOP TOURISM IN THE REGION?

The new road and tunnel will increase access to the area during all seasons. Visitors, foreign or local tourists will feel safer. The Kvesheti-Kobi Road project will contribute to the development of tourist destinations such as Kazbegi National Park, impressive gorges and beautiful villages. As part of the project, consultations are currently underway with local people, government agencies and civil society to identify activities that can contribute to the development of the community-based tourism.

23. THERE ARE MANY NATURAL HABITATS IN THE PROJECT AREA. HOW WILL THEY BE PROTECTED?

Sensitive habitats in the project area were studied by experts as part of the Environmental Impact Assessment (EIA) and Biodiversity Action Plan (BAP). The EIA and BAP report provides recommendations and mitigation measures to protect biodiversity.

13 Consultation meetings were held from September 2018 to February 2019. They covered biodiversity issues with focus groups and stakeholders: Center for Biodiversity Conservation and Research; Caucasus Wildlife Fund; Sabuko; Georgian Center for Wildlife Conservation; Agency of Protected Areas; World Wildlife Fund.

The BAP (<https://www.ebrd.com/documents/environment/kveshetiko-bi-bap-in-english.pdf>) envisages measures to protect and enhance biodiversity in the area. Its implementation will be monitored by a working group of international biodiversity experts and ecologists.

24. THERE ARE NUMEROUS CULTURAL HERITAGE SITES AND CEMETERIES IN THE VALLEY. HOW WILL THEY BE PROTECTED?

Based on the study of the project area, local specialists conducted a number of assessments with respect to cultural heritage. These assessments filtered into the pre-feasibility and feasibility assessments as well as the project environmental impact assessment. Location data from this work on known cultural sites was used to ensure that the alignment was designed to avoid all known cultural heritage sites, including cemeteries. Detailed mitigation and management measures were set out, including the requirement to undertake pre-construction surveys for these sites and wider cultural heritage interests.

Subsequent survey work undertaken prior to construction has now identified multiple additional cultural heritage sites and mitigation measures are now being implemented for these sites, as well as those already identified during the EIA phase.

Pre-construction condition assessments of the sites have been undertaken and stringent vibration thresholds have been set for all sites. The noted thresholds are in line with international good practice and will ensure that contractor activities do not damage sites. In addition, fencing of some sites has been implemented to protect the sites; in some cases some restoration works may be required prior to the start of the construction, based on the feedback from the National Agency for Cultural Heritage Preservation (NACHP).

In addition to the above measures, cultural heritage monitors will be permanently on-site during construction activities, in line with the project approval conditions from NACHP to ensure any known or unknown cultural heritage sites are appropriately protected.

25. HOW IS THE LAND REGISTRATION/ COMPENSATION PROCESS CONDUCTED? DOES THE STATE TAKE INTO ACCOUNT THE INTERESTS OF THE POPULATION?

The Roads Department of Georgia implements the procedures provided in the Resettlement Plan prepared within the framework of the construction of the Kvesheti-Kobi road and agreed with the donor organization (Asian Development Bank). As a result, in order to redeem the land plots owned / used by the project-affected local population, the Roads Department pays the relevant reimbursement (This document includes the assessment of land, building structures, annual crops and perennial crops, as well as severe impacts and compensation for unregistered plots and vulnerable families.)

Residents of the villages: Zakatkari, Rostiani, Benian-Begoni, Iukho and Tskere expressed dissatisfaction with the compensation provided in the Resettlement Plan, in particular, disagreed with the 1 sq.m. land valuation. In the framework of the decision made by the commission on November 1, 2019, in order to determine whether the existence of functional zoning had an impact on the assessment of the land owned by the affected local population, the Roads Department applied to the Levan Samkharauli Forensics Bureau which submitted an expert report on the unit and total market values of 124 plots of land located in Dusheti district. Based on this conclusion, the market value of the unit of land plots in the development zone of the Kvesheti-Kobi highway has increased compared to the original price. The Asian Development Bank accepted and endorsed the Department's decision on the above issue.

At this stage, the implementation of resettlement procedures poses no problems, as the measures taken by the Roads Department, in order to set a new price, positively motivated the citizens and the price for 1 sq.m. land plot offered by the Department proved to be acceptable to them.

The Roads Department in conjunction with the National Agency of Public Registry, assists local people in registering land in a simplified way under this project. Land registration is regulated by existing legislation. There have been frequent cases when citizens have legalized the previously unregistered lands in use with the relevant documents.

Only those plots of land were registered in the name of the state which, at the time of the inventory, were not registered in the ownership and no one complained about their use. However, this does not mean that if a citizen has sufficient legal grounds to register such plot of land, he will not be able to register the land.

26. HAS THE CONSTRUCTION OF THE NEW KVESHETI-KOBI ROAD ALREADY STARTED AND AT WHAT STAGE IS THE WORK?

Construction of 23 km long road and 9 km long tunnel of the new Kvesheti-Kobi road project has already started and at the moment, construction works are underway on both sections of the highway.

Evacuation tunnel works are underway within Lot 1 (part of the tunnel) and the construction of the main tunnel by TBM has started. The deadline for completion of construction work is October 2024. Lot 2 (part of the road) is under construction of the 2nd bridge, arrangement of a water pipe at km 0.7, excavation of the first tunnel and arrangement of the entrance portal. The deadline for completion of the construction works is set for October 2023.

More specifically, on the first lot of the road, which includes the Tskere-Kobi section, at this stage, the tunnel boring machine TBM is assembled and being tested, and on the second lot, on the 12.7 km section of Kvesheti-Tskere, the portals of the first tunnel is being arranged.

27. AT WHAT STAGE IS THE PROCESS OF TBM TRANSPORTATION? HAS THE ASSEMBLY WORK BEEN COMPLETED?

At this stage, the main parts of the TBM (Tunnel Boring Machine) specially designed for the Kvesheti-Kobi road project are already in place. The assembly works of the machine were carried out in parallel mode of transportation and at this time, the assembly of the construction part is completed. Only works related to various functional elements are left. Finally, the construction of the tunnel with TBM started in September 2021.

28. ARE VACANCIES BEING ANNOUNCED WITHIN THE PROJECT AND HOW MUCH IS THE PAY?

Works on both sections of the Kvesheti-Kobi highway have entered an active phase. Accordingly, vacancies for various positions will be announced periodically. More than 500 workers have been employed on the Lot 1, and more than 150 – on lot 2. Most of the hires are local. The number of hires will keep increasing. According to a preliminary estimate, 58% of qualified staff, 20% of semi-qualified and 22% of unqualified staff will be required. Fees will be determined according to the duties and schedule.

Information on active vacancies will be periodically posted on the project website, village message boards and Facebook page.

 **PROJECT WEBSITE**
kveshetikobiroad.ge

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