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This policy brief is a publication of the UNDP in Uzbekistan and provides the framework for selecting certain strategic alternatives or activities within the discussion of the current policy programme. The target audience of this document includes policymakers, the donor community, independent analysts, and other development stakeholders. The opinions expressed in this policy brief belong to the authors and do not necessarily reflect UNDP's standing or policy. All rights are reserved.

«Road Construction: The current state and prospects for the participation of the private sector»

Introduction

Major investments into the development of a nation's transport communications have often had a multiplier effect on the growth of the state's economy and trade prospects. From the 1970s to the 1980s the US, Japan and Canada invested heavily in transport communications, decisions which helped to ensure the high growth rate of each nation's Gross Domestic Product (GDP). Therefore, it is accepted that economic growth in many countries relies on the development of transport communications and the improvement of the flow of cargo traffic. For instance, it is shown that the 1% increase in the European Union's GDP, as experienced in the recent decade, has been accompanied by a 1.7% increase in total freight traffic¹.

Roads are an important part of the industrial and social infrastructure that supports Uzbekistan's economy. The nation's roads currently transport most of the nation's cargo and passengers, accounting for 85% of freight traffic and 95% of passenger traffic. This represents the special role and importance that Uzbekistan's roads play in the nation's economic life. An increased reliance on roads for cargo and passenger transport, in addition to other economic factors, has made it important to invest in the development of transport infrastructure. Some factors that illustrate the growing use of Uzbekistan's roads are outlined below:

- A gradual increase in freight traffic, with the growth rates of this traffic increasing each year by between 0.5 and 2.5%;
- An increase in the private ownership of light vehicles, illustrated by the fact that as of 2010 there were 27.1 cars per 100 families;
- The estimation that the freight transiting through Uzbekistan each year will amount to nearly a million tons from 2015–2020.

In this regard, specific emphasis should be paid to enhancing the construction, maintenance and operation of roads. According to the State Program for the construction and renovation of roads, 412.4 billion soums were spent expanding and developing the nation's highways in 2010. 609.8 billion soums were budgeted for this purpose in 2011, with 302 km of road slated for commissioning.

It is widely recognised that roads need to be upgraded, with many sections of international and national roads falling short of specified requirements. It is also the

¹ <http://review.uz/ru/article/45/2>

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case that the current financing for the construction and repairing of roads cannot meet increasing demands. There have also been multiple cases where contractor organisations have failed to provide high quality services. According to experts, the quality control and monitoring of road construction requires on-going improvement.

This study's purpose is to determine the current status of road construction and operation in Uzbekistan, while evaluating the private sector's involvement in this industry. This study will also develop recommendations regarding the enhancement of legal and regulatory frameworks, and the introduction of the private sector into the road-building industry.

I. The current state of the construction, maintenance and operation of roads

Uzbekistan's capacities for road construction and renovation, along with the development of road infrastructure, have seen significant improvement in recent years. A large-scale program for the reconstruction and development of the Uzbek National Highway (UNH) till 2015 was launched in 2009. The total length of highways to be renovated or reconstructed within the UNH amounted to 2,755km, or 70% of the nation's international roads. This program envisages the construction of four-lane Category I international roads. This work will ensure the uninhibited passage of vehicles with an axial load of 13 tons, thus meeting international standards.

The length of Uzbekistan's general purpose roads currently exceeds 42.6 thousand km, with half of these being local roads. Approximately 200 to 250 km of road is built each year, while 1,500 to 2,000 km of road undergoes repair. From 2009 to 2010, 395km or less than 1% of Uzbekistan's roads were built and reconstructed. Experts have determined these rates to be clearly inadequate, outlining a need for new approaches in regards to road construction.

Box №1. The Classification of General Purpose Roads in Uzbekistan

General purpose roads have been subdivided into international, national, and local roads:

International roads include highways that connect capitals of sovereign states and are part of the international highway network in line with interstate agreements. There are 11 international roads in Uzbekistan, including Tashkent-Dushanbe (M-34), Tashkent-Osh (A-373) and other roads.

A number of roads in Uzbekistan have been classified as *national roads*. These include roads that enable transport communication between the country's administrative, cultural and industrial centres, and the roads that link these centres to railway stations, ports, docks and neighbouring states. These national roads include those that link Ferghana and Andijan, and Gulistan and Samarkand.

There are also networks of local roads. These roads connect the republic's administrative centres and regions to districts and rural centres, while connecting district centres to national roads and railway stations.

Source: based on the Law of the Republic of Uzbekistan "On Automobile Roads", 2007

A series of major efforts have been channelled towards the development of international and national roads. 2010 saw the construction and renovation of a 238 km UNH section, a task that represented 67% of that year's completed works. In monetary terms \$378 million was invested into road construction and reconstruction in 2010, representing a 31.5% increase from levels in 2009. \$547 million was allocated for the construction and reconstruction of 302km of roads in 2011².

The Uzbekistan government is currently focused on assuring reliable year-round transport communication between the Ferghana Valley, where a third of the nation's population resides, to other regions. The National UNH program has also placed special emphasis on accelerating the reconstruction of the Tashkent-Andijan highway that crosses the Kamchik mountain pass, in addition to the construction of a

² The speech of the President of the Republic of Uzbekistan, Islam Karimov, at the government session dedicated to addressing the outcomes of socioeconomic development in 2010 and key priorities for 2011;

four-lane road with concrete paving. The importance of the development of this region's roads is evident from the fact the area relies almost entirely on automobile transport, with rail transportation being almost non-existent. This puts the existing road infrastructure under pressure, while increasing related transport costs.

Table No. 1. General Purpose Roads in The Republic of Uzbekistan

№	Highway Types	Quantity	Mileage	
			Km	in %
1.	International Roads	11	3979	9,3%
2.	National Roads	229	14069	33,0%
3.	Local Roads	1802	24606	57,7%
Total:		2042	42654	100%

Source: List of General Purpose Roads; Decree No. 169 of the Cabinet of Ministers of the Republic of Uzbekistan.

Meanwhile there is also a need to pay attention to the condition of domestic roads, along with rural, urban and residential roads. In accordance with current procedures, the funding for the construction, reconstruction and maintenance of urban and residential streets has been sourced from local budgets. In reality it has come to light that local authorities cannot cope with their entrusted functions, due to their lack of funds, road-building machinery and skilled labourers.

In accordance to current procedures the Republic Road Fund (RRF), the SJSC 'Uzavtoyul' and its regional subdivisions, have all acted as contractors in regards to general purpose roads. The RRF is a single-customer service within the Council of Ministers of the Republic of Karakalpakstan and regional khokimiyats (local administration). The RRF acts as a contractor for road construction works on international and national roads, while single-customer services within regional khokimiyats are in charge of similar works on local roads.

In addition the contractors are entrusted with the technical supervision of works in progress, must adhere to design parameters and estimate documentation, and must comply with oversight and acceptance practices. Construction and renovation works has in some cases been entrusted to non-specialised organisations, meaning that completed works are not always of high quality. In order to ensure adequate quality control, it is recommended that the possibilities of transferring the technical supervision of road construction to an independent agency should be explored.

Table No. 2. Functions of a Contractor for Construction, Reconstruction, and Repair of General Purpose Roads

Functions	RRF	Single Customer Services within khokimiyats	SJSC "Uzavtoyul"
The development and expert examination of designs and estimate documentation for international and national highway projects and holding competitive bidding.	√		
The conducting of competitive bidding (tenders) for local road sites.		√	
The conclusion of construction contracts with winning bidders.	√	√	
The undertaking of technical supervision.	√	√	
The maintenance and repair of general purpose roads.			√

The subdivisions of the SJSC 'Uzavtoyul' are responsible for general purpose roads, and are tasked with their maintenance and repair. These works are completed at the expense of the RRF, in accordance with expenditure estimates approved by coordination with the SJSC 'Uzavtoyul'³. Experience shows that the quality of road repair and maintenance has not always been regulated.

³ Decree No. 361 of the Cabinet of Ministers of the Republic of Uzbekistan dated 21 August 2003.

Box №2. The Unsatisfactory Performance of Road Construction Agencies

The Oliy Majlis (Parliament) has held a hearing on enforcement of the Law of the Republic of Uzbekistan “On Automobile Roads”, within the “Uzavtoyul” system in the Sirdarya, Jizzakh and Kashkadarya regions. The matter was specifically discussed on the 5th of May 2011, during a session of the Committee for Industry, Construction and Trade of the parliament’s Legislative Chamber. The following shortcomings were identified during this session:

- Design norms and standards have not always been fully complied with;
- No oversight has been offered in regards to construction, reconstruction, repair and maintenance;
- A state cadastre of general purpose roads has not been maintained;
- Norms and standards regarding the streets of residential areas have not existed;
- Work has been occasionally carried out by non-specialised road organisations, resulting in poor quality products;
- Attention has not been directed towards the training and retraining of human resources in the areas of road construction and maintenance.

The enforcement of the Law of the Republic of Uzbekistan “On Automobile Roads” within the “Uzavtoyul” system has been considered unsatisfactory.

Source: <http://www.uzdaily.uz/LWTPZ/articles-id-6693.html>

Some new mechanisms should be considered in order to address these matters, namely the distribution of proposals for road maintenance on a competitive basis. It is expected that using this system will make “Uzavtoyul” subdivisions more responsible in terms of the quality of their completed work.

The condition of roadside infrastructure and services, specifically that of motels, camping sites, petrol stations, automobile service stations and other facilities, requires special attention. It is also apparent that these services, often of poor quality, tend to concentrate in certain sections of highways. For instance there is at least one service facility for every 1.5 km along the road from Tashkent to Bukhara, while certain 10-km sections contain more than 30 meal stations. The high density of these services can have a detrimental effect on the safety and speed of road transport.

There are no integrated service facilities that offer the full range of services requested by travellers, including healthcare centres and drugstores, camping sites and motels, telephone stations and road maintenance services. Facilities have been built and continue to be built in violation of established technical requirements, and therefore often have a negative effect on road safety. Matters of concern include the lack of speed change lanes used to enter or exit roads, in addition to the tendency for parking lots to sit within road lanes. In addition the inconvenient positioning of services facilities force drivers to make unnecessary U-turns, while impelling passengers and drivers to cross roads at places unsuited for pedestrian crossing. This problem hinders the flow of traffic, reduces the speed of trucks, and increases the likelihood of accidents.

Table No.3. Certain Problems in the Development of Roadside Infrastructure

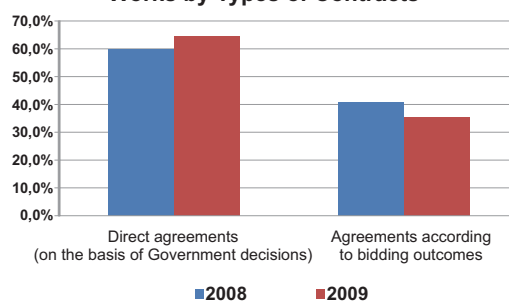
Service Infrastructure	Road Safety
<ul style="list-style-type: none"> • The condition of roadside facilities often fail to meet current standards and requirements of sanitation and hygiene; • There is an absence of specialised rescue services, medical and technical assistance; • There is a lack of adequate support for road repair points, falling short of modern requirements; • The available service facilities are built in conflict with existing documents and regulations. 	<ul style="list-style-type: none"> • There is a high likelihood of road traffic accidents, due to the close proximity of service facilities to roads; • There is an absence of speed change lanes; • There is an absence of parking lots outside of right-of-way road sections; • There is no road lighting within service areas and parking lots, as well as along road sections with a high risk of traffic accidents.

II. The involvement of the private sector in road construction

Road construction in Uzbekistan has seen significant reform since 2003. This reform process has helped to ensure the steady flow of operational funds into this sector, facilitated by the establishment of a specialised agency or RRF. A more transparent bidding system for road construction works, one that uses tenders, has also been introduced. Regional road operation organisations and specialised road repair and maintenance enterprises have been created on the basis of the operational enterprises of the SJSC 'Uzavtoyul'. These organisations and enterprises maintain roads and bridges.

In theory, the law in Uzbekistan should offer a mechanism for the competitive selection of tenders, in regards to the completion of road works. In practice, however, most funding for road construction and repair has been provided by contracted organisations which work under direct contracts. This situation has been the result of specific government decisions. The amount of funding submitted under direct agreements in 2009 accounted to 65% of the year's total road works, a trend which continued into 2010. In accordance to data covering nine months of 2010, the funding obtained through direct agreements totalled to 86% of overall funding. This has inhibited the development of competition, in addition to the private sector's expansion into road construction.

Diagram No.1. Funding of Road Construction Works by Types of Contracts



Box №3. Road Construction Funding Mechanism in Germany

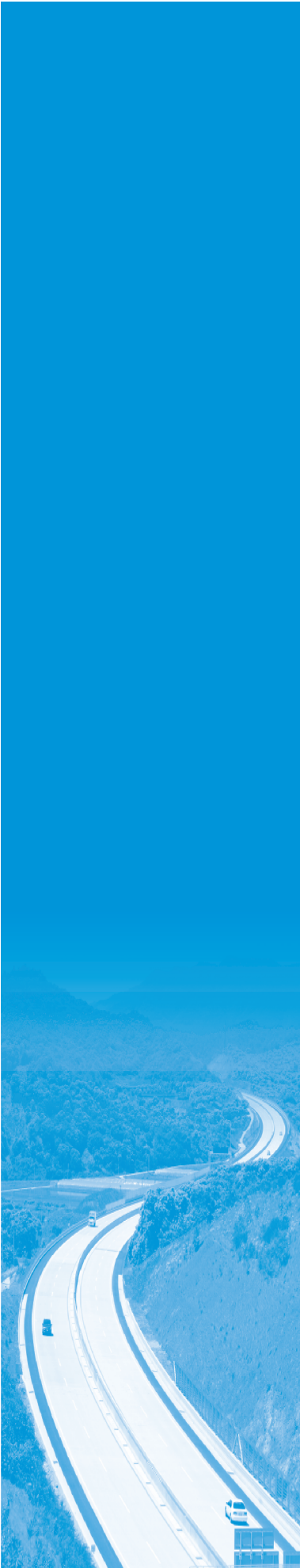
The Government of the Federal Republic of Germany (FRG) owns the nation's federal motorways, including roads (Bundesstrassen) and highways (Bundesautobahnen). The government also manages the expansion and maintenance of the nation's road network. Autobahns and speedways are funded by the federal budget, while the other motorways are built and maintained at the expense of regional budgets. Road construction has been mainly funded through the FRG budget, but public-private partnerships have also been introduced in various forms. A concession mode has also been provided for the construction of new roads. In this situation, private construction companies raise funds and are compensated for expenses within 15 years of a project's completion.

A new system, named the A-Model, has been introduced in order to expand Germany's existing road system. The model's main feature is that the government provides up to 50% of the funds required for construction projects. The concessionary's expenses are then reimbursed by means of revenue obtained from the passage of heavy duty trucks, specifically those with an unladen weight of more than 12-tons. Under the model a road's design, construction, management and maintenance falls within the duties of a concessionary, with contract periods set at 30 years.

A similar F-model applies to the construction of bridges and tunnels, when a concessionary raises funds, builds and maintains the project. The concessionary is compensated for expenses related to payments for all means of transportation, with a contract period of 30 years.

There have been positive developments, specifically through the adoption of the Presidential Decree No. 1475 of the Republic of Uzbekistan on the 7th of February 2011 'On Optimisation of the Public Procurement System and Wider Involvement of Small Business Entities'. This document has stipulated that only small business entities can bid for construction and reconstruction contracts with a value of up to 500 million soums. It is expected that private business will account for up to 40% of all repairs undertaken in the road sector by the end of 2011.

There has been a persistent trend in recent years towards the involvement of private business in the road sector. In particular, the number of private companies participating in tenders held by RRF has increased. This is evident in the fact that



during 2008 the number of bidders from among private companies totalled to 23 entities, in comparison to 61 public companies, while during the first 9 months of 2010 the number of private firms participating in bidding totalled to 31 entities. Likewise the projects undertaken by private enterprises acting as general contractors totalled to 15% of the total value of capital and medium-level repair in 2009, a figure that increased to 25% in 2010. However, the extent of private participation in the construction and reconstruction of roads remains low. There are also no formal restrictions regarding the private sector's access to competitive bidding. However, in view of the broad scope of required work and the lack of required equipment and machinery, private firms often cannot compete with state enterprises. According to experts, the services offered by private sector entities are not sufficient to improve the quality of infrastructure while attracting additional investment.

Box №4. PPP does not imply Toll Roads

A system of payments which changes in accordance to a road's use is called a system of shadow tolls. As a system whereby road users do not make direct payments for passage, this represents a promising method of funding.

In this situation the government and a developer enter a contract, offering annual payments set at flat amounts that are adjusted for traffic density and road conditions. These payments may be used by the developer to repay loans and to ensure profits regarding stakeholder equity. This approach has been adopted in Italy, Spain, Portugal, Hungary and Great Britain.

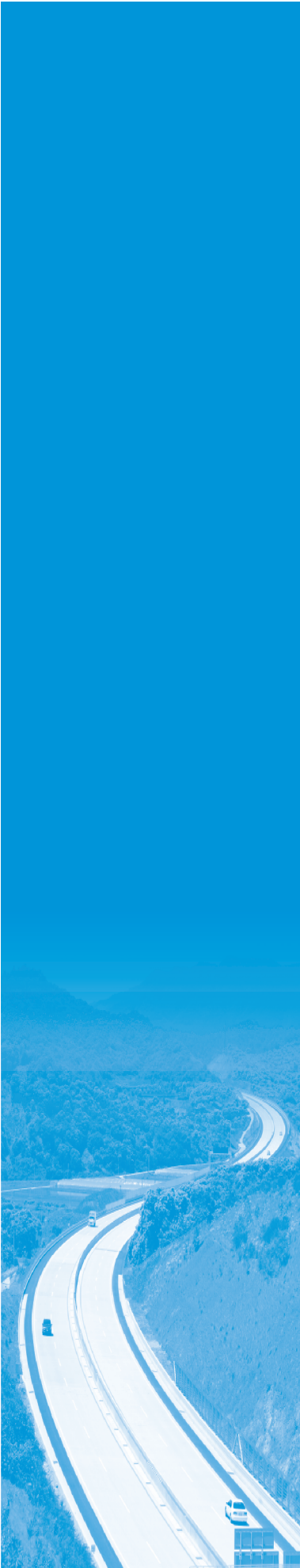
An analysis of Uzbekistan's legislation and current practice has shown that the following issues may enhance the private sector's involvement in the construction, repair and operation of roads.

1) The development of competition in the road construction market. The current road construction and repair market is highly concentrated. Enterprises that are part of the SJSC 'Uzavtoyul' are known to monopolise local markets in the country's regions and districts. Meanwhile the regional and district offices of the SJSC 'Uzavtoyul' manage the repair of local streets in cities and other settlements; operations which total to about 90% of the nation's roadwork. In contrast, the ability of private entrepreneurs to operate in this market has been limited by their undeveloped logistics base, limited financial resources and lack of experience regarding the implementation of large-scale and complex projects. Many private firms are subcontracted to providing particular services, since only a limited number of private companies can undertake the full range of works required by the RRF and can commission large-scale 'turnkey' projects.

2) The expansion of funding sources for road construction. The roads of cities, district capitals, residential and rural areas, along with those inside farms, are all in poor condition. This situation has been primarily caused by a lack of financial resources available for the construction, repair and maintenance of roads, the latter financed only from local budgets, in addition to the lack of equipment possessed by road maintenance enterprises.

The road construction works that have been funded only through earmarked budget funds may not be able to address the need to rehabilitate the entire motorway network. International experience has indicated that the current volume of private investment into roads has constantly increased, especially in South America, Asia and Europe. Likewise, many countries have resolved financial issues by attracting private sector funds through the mechanisms of public-private partnership. In a number of European countries, including Italy, Spain and Portugal, the private enterprises that are entitled to undertake road construction works can maintain motorways for 10 years. This cooperation allows the private sector to generate income through public subsidies for the construction and operation of a motorway section, while possessing exclusive rights to build and operate roadside infrastructure facilities.

In many countries including France, Israel, Korea, Japan, India, Brazil, Argentina, and Chile, private companies are able to carry out roadwork based on the principle of 'Build-Operate-Transfer'. This system allows private enterprises to invest their funds



into the construction of alternative road sections, which can be operated for a period of less than 15 years. At the end of the period specified in the contract, the enterprises will hand over the facility to the government's balance sheet. This system allows the attraction of investments to the private sector, while increasing the interests of private operators in relation to the high-quality performance of road construction work, in line with the requirements established by state agencies. The system also ensures that roads are maintained to a high level, while additional conveniences can be created for passengers and drivers in order to increase the number of vehicles and passengers that might use the road.

The application of these mechanisms in Uzbekistan requires the extensive amendment of regulatory and legal documentation. These amendments are needed to settle issues regarding interaction between government agencies and the economic entities that invest in road construction and other relevant projects.

3) The enhancement of bidding mechanisms for construction and repair work, and the costing and monitoring of the execution of contract clauses. In accordance with law, the contracts for the implementation of large-scale projects whose costs exceed \$50,000 will be based on the results of tenders. Experience indicates that many private enterprises have no ability to participate in these tenders, due to factors beyond their control. These factors include the limited time allowed for the preparation and submissions of bidding documents, and the inability to obtain bank permits within short time periods. The period for competitive bidding is usually set for 30 calendar days, which is insufficient for most tenderers. There is also no established practice regarding advance notice, in association with competitive bidding. The tender process also requires contractors to offer a bank guarantee of working capital at an amount of no less than 20% of the tender subject. In this situation the guarantee will most likely be confirmed by high-level, republican bank. It is a process which requires additional time for the approval and registration of the documents in question.

Conclusions and proposals

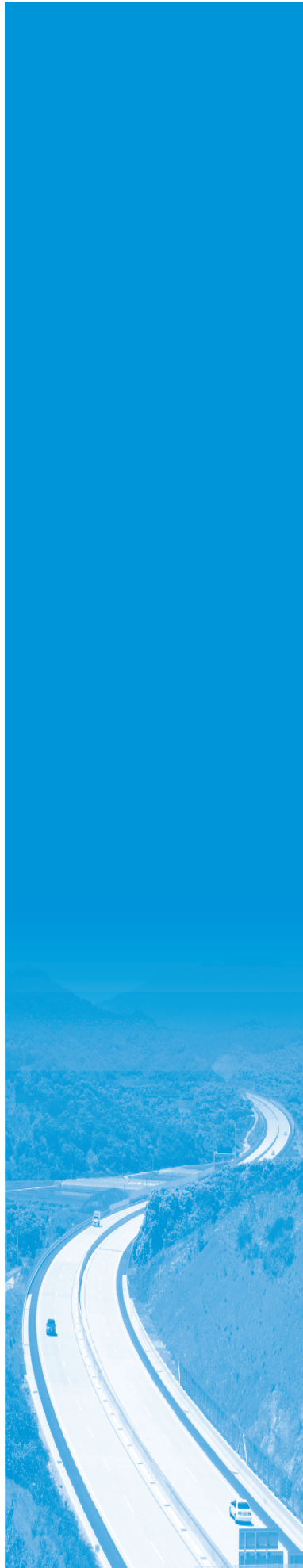
The following proposals relate to the further enhancement of the regulations and provisions controlling the construction, repair and operation of motorways. The proposals have been established on the basis of the abovementioned analysis:

1. The enhancement of regulatory and legal frameworks for the development of competition, and for the involvement of small and private business entities in the construction, repair and operation of motorways:

- The development and adoption of a Law of the Republic of Uzbekistan 'On Public-Private Partnership'. This law should regulate methods of attracting private sector funds into infrastructural projects, while making amendments and additions to existing laws including 'On demonopolization and privatization', 'On Competition' and others;
- The introduction of amendments into the Law of the Republic of Uzbekistan 'On Concessions'. These amendments incorporate the subject of motorways into concession agreements between government and private investors, while increasing the maximum effective period of a concession agreement from 15 to 30 years;
- The development and adoption of regulations and bylaws that govern the procedures of attracting funds from private investors into road construction projects, through the basis of concession agreements;
- The investigation of the legal and regulatory frameworks that govern legal relations in the road construction sector. This investigation will help to define the responsibilities of various government agencies and offices, to identify funding sources, and to strengthen the powers of local authorities.

2. The strengthening of public control, the development of competition, and the capacity building of private enterprises in the road sector:

- The transfer of the technical supervision of road construction from contractors,



including the RRF and single customers services at khokimiyats, to an independent agency. This will allow for the adequate control and the effect monitoring of road construction works. A similar system has been introduced and has been successfully used in many countries;

- The application of economic incentives which will allow for the adequate quality of motorway operation. This will involve the introduction of a mechanism for the competitive selection of construction companies for road maintenance. This measure will ensure that private entities are able to access the market, while placing pressure on the SJSC 'Uzavtoyul' to undertake the quality maintenance and repair of general purpose roads.
- The creation of incentives for strengthening the logistic bases of nongovernmental enterprises within road sectors. These incentives can include the provision of customs and tax privileges for the importation of specialised building equipment, along with the granting of long-term loans and leasing.

3. The introduction of public-private partnership mechanisms, and the broader involvement of private enterprises in the road sector:

- The introduction of mechanisms which allow concessional agreements to carry out the construction and reconstruction of international and national roads. The government has attracted private investors-concessionaries to cover portions of investment projects, within this mechanism, while recognising the compensation conditions stipulated within the agreement. These conditions include the right of investors to operate and maintain motorways within a specified period of time, and the right to construct and operate roadside infrastructure facilities;
- The introduction of the practice of shifting the right to operate and maintain motorways, primarily the roads within cities, district capitals and other residential areas, to contracting organisations. These organisations may include the small and private business entities who are engaged in road repair and construction for no less than three years;
- The application of mechanisms for the competitive selection of tenders by contracted organisations, in order to undertake the construction, reconstruction and repair of general purpose roads. The maximum threshold for financing under direct agreements, without competitive bidding, should be set at an amount that does not exceed 25% of the total annual financing.

4. The Enhancement of Bidding Procedures and Costing Mechanisms:

- The introduction of a practice of advance notification, in regards to bidding in the mass media. This should occur at least 15 business days before bidding applications are accepted, and before the bidding is announced;
- The reduction of the time required by banks to assess applications submitted by economic entities and contracting organisations. This should provide a guarantee of turnover funds for road facilities, at an amount of no less than 20% of the value of the subject under bidding;
- The improved transparency of the bidding/tender process, which can be achieved by publishing relevant announcements on government websites. Community representatives, including mahallas (community organisations), NGOs and independent experts, should be included in bidding commissions. They should also have a right to lodge appeals in economic courts, in regards to the decisions



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