REPUBLIK OF TATARSTAN

KAZAN INTERNATIONAL AIRPORT (KIA)

AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

June 2008

Preliminary Draft

Russia, Republic of Tatarstan
Reimbursable Technical Assistance
ECSSD/FEU

Document of the World Bank
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Executive Summary

This Report has been drafted by the World Bank for the Ministry of Transport and Roads of the Republic of Tatarstan under the terms of the Agreement for Advisory Services on Assistance in Developing Kazan International airport (KIA) dated 21 January 2008.

At the policy level the Government of Tatarstan (GOT) and KIA need to develop a strategy for route development encompassing:

- changes in immigration procedures that may affect traffic (such as the implementation of visas on arrival, transit visas and short term visas),
- the role and position of Tatarstan Airlines, which currently enjoys a protective environment where competition is limited by policies aimed at restricting the capacity offered by other airlines,
- the promotion of Kazan as a tourist destination,
- the entrance of new carriers including Low Cost Carriers (LCC) operating international routes from Europe,
- regulatory modifications facilitating the operation of LCC within the Russian domestic market,
- policies design to facilitate the development of hotel capacity in the city.

In terms of airport infrastructure and services development, the GOT needs to upgrade and expand the Kazan International Airport (KIA) infrastructure to keep pace with traffic growth and develop KIA into a competitive, medium size sub-regional hub airport during the 2008-2012 period. A preliminary traffic forecast of passengers and aircraft movements indicates that the existing landside facilities have insufficient capacity, and that future traffic growth will result in further deterioration in already poor levels of service to passengers. Airside infrastructure has sufficient capacity to meet medium-term aircraft movements growth, so the investment priority should be in terminal expansion and upgrading. This would also facilitate the development of commercial revenue opportunities for KIA.

KIA is among the regional airports with lowest turnaround charges, although its charges are higher than the Moscow airports and Samara. Its financial performance is severely constrained by high operating costs, particularly in relation to labour. KIA’s passengers serviced per employee ratio is over 7 times higher than those found in comparable international airports. KIA’s low revenues and high cost base severely reduce cash flow available for investment and service improvement.

Given fiscal constraints on public funds available for investment, and lack of KIA financial capacity, the Government has requested the World Bank to perform this review of PPP options for the development of KIA. In summary, the World Bank would recommend a phased PPP strategy based i) initially on a operation and maintenance (O&M) contract to improve KIA efficiency and services, to be followed by ii) a concession arrangement whereby the private investor will finance major capital investment.

i) O&M. The current financial performance of KIA is insufficient to form the basis for significant private investment that would provide value for money for the Government. Therefore we propose a medium-term O&M agreement with a private operator to bring KIA performance up to a standard that will maximize the value of the airport.
ii) **Concession.** Once KIA achieves the target performance gains, a concession arrangement will be developed and a concessionaire selected through transparent, international public procurement to renovate, expand and operate the terminal building, plus its related services (i.e., ground handling, car parking, etc.) and to operate and maintain the airside infrastructure. The concessionaire would finance the renovation and expansion of the landside assets, currently estimated at **Rubles 4,500 million**, supported by a Government grant of approximately 30% to 45% of this amount. The Government would also fund the airside investments, as per the same Master Plan, using the federal grant, the cost of which is currently estimated at **Rubles 2,750 million**.

These calculations are, however, preliminary and need more substantiation through the undertaking of a more detailed Master Plan and PPP project feasibility study. Such additional work would firm up revenue and cost estimates and associated projections. The government should also consider market testing PPP options for KIA through seeking expressions of interest in the international press and discussing the project with potential market participants (such as investors, airport/infrastructure operators and developers, and commercial and multilateral lending institutions).

For the government to successfully develop, bid out, and subsequently manage a PPP project for KIA it is recommended that it establish a dedicated team with the appropriate experience and skills. This government team will need to manage specialist advisors (legal, technical, financial) in structuring the project, taking it to market (market testing, prequalification and bidding stages), and subsequently negotiate and reach financial close with the preferred bidder. The government will also need to plan how the KIA PPP contract will be managed and regulated after award – this will be critical to ensuring the winning bidder delivers on all of its’ contractual obligations post-award.
1 INTRODUCTION

1.1 Scope of Advisory Services and this Report.

This Report has been drafted by the World Bank for the Ministry of Transport and Roads of the Republic of Tatarstan under the terms of the Agreement for Advisory Services on Assistance in Developing Kazan International airport (KIA) dated 21 January 2008. This Report covers Phase 1 of the Terms of Reference (TOR): Business Development Strategy and PSP Options.

Part A of the TOR covers the undertaking of background analysis (see Sections 2, 3, 4, and 5 of this Report) and the production of a preliminary report on the medium term strategy for KIA. The TOR also refers to reviewing available options for strategy implementation, including capacity requirements (see Sections 3, 4 and 5), financing structures (see Section 8) and PPP options (see Sections 6 and 7).

Part B of the TOR relates to the preparatory phase for the selection of an adequate private sector partner to develop KIA.

- Master Plan – with respect to the likely environmental and social aspects of the Master Plan we outline the major risk issues in Section 7, and Annex 8 contains the IFC/World Bank Environmental, Health & Safety Guidelines for Airports which the Master Plan should incorporate and adopt. The draft Terms Of References (TORs) for Technical Advisors and for an Environmental & Social Impact Assessment (see Annex 3 and Annex 7) should help ensure that these specialist advisors make productive contributions to the updating of the 2003/04 Master Plan by the government and KIA/Design Institute, Gipro NII Aviaprom.

- Traffic Analysis – we have undertaken a preliminary traffic analysis (see Sections 3 and 5) and provided a draft TOR for a specialized air transport consulting firm to undertake the much needed traffic analysis in tandem with the Master Plan revision (see Annex 2). The TOR also sets out a suggested selection process.

- Financial Model – we have developed a fully functioning preliminary financial model for current KIA operations and PSP option development and review see Section 8 of this Report for financial aspects of PPP options and Annex 2 for the overview of key assumptions and controls used in the model). This model is enclosed with this report.

- Technical Assistance Plan – Section 10 of this Report sets out a description and costing estimate of a technical assistance program for the development of KIA on a PPP basis.

- Institutional Capacity Development – in Section 9 we recommend that the government sets up a dedicated transaction team to develop and manage this PPP transaction as well as set up an airport management team. Section 10 provides PPP project preparation guidelines.

1.2 Background

Tatarstan is one of the largest republics in Russia in terms of population, economic, scientific and cultural potential. The convenient transportation infrastructure, rich natural resources and manpower, developed industry and stable agricultural sector secures a noticeable place for
Tatarstan in the economic life of the country. Its history determines ethnographic and cultural peculiarities of the vast region at the border between Europe and Asia. The Republic’s population is represented by several nationalities, including Tatars (48.5% of the total population), Russians (43.3%), Chuvashs (3.7%), Ukranians (0.9%), Mardovians (0.8%), Maris (0.5%) and others.

Kazan, the capital of Tatarstan, is trying to widen its economic base. Kazan is the centre of one of Russia’s main oil producing regions. It is also the second most industrialized region after Samara Oblast. 151 large and medium-size companies are situated in the city of Kazan, including 98 Joint venture companies. 48% of goods produced in Kazan, are sold inside the Republic of Tatarstan, 31% in the rest of Russia, and 21% is exported to the CIS countries and countries outside.

Kazan is a city of over one million people and the largest port on the Volga River referred to as “the port of five seas”. Expanding KIA to cater for the developing tourism industry as well as meeting Kazan’s potential as a transportation hub for the rest of Russia will require investments in modern airport infrastructure to update the 1970s airport infrastructure; particularly the landside component (i.e., passenger terminal and related facilities). Other supporting investments would include motorways, hotel infrastructure, tourism ports along the Volga River, etc.

The Government of Tatarstan (GOT) realizes that in order to develop and operate a modern and full scale sub-regional hub airport in Kazan they will, in the long term, need to partner with a consortium of firms that could bring expertise in: (i) airport construction, (ii) airport operation, (iii) airport route expansion and bilateral negotiations, and (iv) airport retail (commercial) operations. Initially the government may consider an interim operationa and maintenance contract to improve the efficiency of operations and levels of service. We understand that the GOT intends to conduct an open international bidding process to select the strategic partner for this process under international standards of governance and transparency.

2 AIR TRANSPORTATION IN RUSSIA

Passenger traffic: The air transport industry in Russia has seen its ups and downs. Between 1950 and 1987 air transport grew dramatically, the number of passengers increased over eighty times. In 1987 passenger traffic was almost totally internally driven, 97% of total traffic was domestic1. The period between 1989 and 1996 was marked by a transitional process. Between these years, GDP suffered a cumulative drop of 40%. That marked the period of deepest transformation of the air transport sector, governed by a process of decentralization and desegregation of air transport enterprises into separate airlines and airport companies. During the nineties corporatization of the Russian airlines started, and the private sector was allowed to acquire equity shares in the sector. In 1995 Aeroflot was transformed into a joint-stock company, with almost half of its shares held in private hands.

Since 2000, the Russian aviation sector has experienced substantial growth of about 9 percent a year on average — both in terms of passenger flows and passenger kilometers flown with passenger traffic showing an average annual growth rate of 4 percent over the past decade. The passenger turnover went up from 53.4 billion passenger km in 2002 to 93.7 billion passenger km in 2006. Russian carriers transported 38 million passengers in 2006, as compared with 35.1 million in 2005 an 8.3 percent increase with strong traffic growth rates projected for the next decade – of 7.5 to 9.5 percent through end 2010 and with a slowdown thereafter of 5.1 – 7.8 percent through 2020.2 While fuel price increases have affected passenger growth rates in recent

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1 Soviet Air-Passenger Transportation Network Matthew Sagers, Thomas Maraffa Geographical Review, Vol. 80, No. 3(Jul., 1990), pp. 266-278
2 Russian State Institute of Civil Aviation figures.
months, most of Russia’s 180 domestic airlines have met the challenge by reducing operating costs, increasing fares, and modernizing their fleets.

Table 2.1: Russia: Air Transport Passenger Traffic

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</thead>
<tbody>
<tr>
<td>Passengers (mln)</td>
<td>26.96</td>
<td>25.11</td>
<td>22.33</td>
<td>21.46</td>
<td>21.83</td>
<td>25.1</td>
<td>26.53</td>
<td>29.42</td>
<td>33.8</td>
<td>35.10</td>
<td>38.0</td>
</tr>
</tbody>
</table>


The cumulative revenues generated by the airline passenger segment during 2006 were US$ 6 billion with the top 15 airlines cornering 78 percent of the passenger volume, and with the top five accounting for half the traffic. The top five airlines are Aeroflot, S7, Transaero, Rossiya, and UTAir. International routes witnessed a 21 percent growth in new destinations while domestic routes grew by 10.5 percent.

Air cargo: In Russia today, air cargo accounts for approximately 30 percent of all civil aviation operations and about 20 percent of revenues. Air cargo has grown during recent years at 3.0-3.4 percent per year. In the first nine months of 2006, cargo carried by Russian airlines amounted to 8.6 billion tons/km — an increase of nearly 8 percent when compared to the same period in the previous year. The highest growth rate was experienced on international routes (9.7 percent), while domestic cargo services declined slightly by 0.3 percent.

Two companies have led the Russian air cargo sector these being the national flag carrier Aeroflot, and Volga-Dnepr. In the first nine months of 2006, Volga-Dnepr carried almost 110,000 tons of cargo, surpassing Aeroflot for the first time (104,000 tons).

Table 2.2: Top 5 Russian airlines by cargo and mail carried for the first nine months of 2006

<table>
<thead>
<tr>
<th>Airline</th>
<th>Cargo and mail carried on international and domestic routes, tons</th>
</tr>
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<tbody>
<tr>
<td>1 Volga-Dnepr</td>
<td>109,843.0</td>
</tr>
<tr>
<td>2 Aeroflot — RA</td>
<td>104,481.9</td>
</tr>
<tr>
<td>3 S7 Airlines (former Sibir)</td>
<td>20,730.0</td>
</tr>
<tr>
<td>4 Polyot</td>
<td>18,645.1</td>
</tr>
</tbody>
</table>

3 Russia’s Transport Clearing Chamber data; and data derived from Russia & CIS Observer Articles
Table 2.3: Cargo turnover by Russian airlines

<table>
<thead>
<tr>
<th>Cargo turnover, mln tkm</th>
<th>2004</th>
<th>2005</th>
<th>First nine months of 2006</th>
</tr>
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<tr>
<td><strong>Total cargo turnover,</strong></td>
<td>10,468.0</td>
<td>10,550.0</td>
<td>8,634.92</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>- international routes,</strong></td>
<td>6,069.3</td>
<td>6,133.0</td>
<td>5,066.23</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Routes between Russia and countries outside CIS</td>
<td>5,557.6</td>
<td>5,612.7</td>
<td>4,602.22</td>
</tr>
<tr>
<td>Routes between Russia and CIS countries</td>
<td>511.7</td>
<td>520.3</td>
<td>464.01</td>
</tr>
<tr>
<td><strong>- Russian domestic routes,</strong></td>
<td>4,398.7</td>
<td>4,417.0</td>
<td>3,568.69</td>
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<tr>
<td>including:</td>
<td></td>
<td></td>
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<tr>
<td>regional routes</td>
<td>106.0</td>
<td>113.6</td>
<td>85.5</td>
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Source: Russia’s Transport Clearing Chamber

2.1 Future of Air Transport Industry in Russia

Constraints in future growth of air transport: Future growth in passenger traffic will be hampered by the country’s weak aviation infrastructure characterized by outdated airports, and runways in poor condition. According to Rosaviatsiya, there are currently 351 airports in Russia of which 68 have the status of being international airports with 62 being airports of federal significance. Also, Russian airports have traditionally not generated sufficient revenues to invest in expansion of their facilities and betterment of the quality of service.

High import duties that increase aircraft price by 41 percent have limited the import of fuel efficient non-Russian airplanes by domestic airlines, leading to these carriers leasing aircraft that are up to 20 years old to serve international routes. Also, slow customs procedures force airlines to hold large inventories of spare parts at high cost. There also remains a shortage of domestic aircraft along with a limited supply of trained flight and technical crews as the airlines look to expand both in the domestic and global markets.3 In addition, depreciation of equipment and property at Russian airports is estimated at 70-80 percent. While the Russian Government has

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4 “Russian airlines set ambitious growth plans”; Komarov, Alexey; Aviation Week – Aug. 12, 2007
allocated to the air transport sector Rubles 10.7 billion in 2005 and Rubles 19.3 billion in 2006, the current size of underfunding is estimated as being Rubles 1.1 trillion (in 2007 prices).

The sector is also plagued by a weak regulatory structure with several regulatory bodies having loosely defined areas of responsibility in areas such as flight safety. An effort at streamlining regulatory oversight and procedures in order to improve sector performance needs to be introduced. In addition, the process of splitting air-transport enterprises into airline companies and airports independent from each other, which began in early and mid '90s, has now been suspended. New entrants will be required to operate under the new licensing regulation which reduces competition in the sector because existing operators can prevent competitors from using their airports. This reduced competition will be worsened by a continuing decline in the number of airports.

**Air transport strategy at Federal level:** Forming a reliable transit point for international freight is one of Russia’s economic priorities for integrating the country into the world economy. The federal targeted program “Modernization of the Transport System in Russia (2002-2010)” which includes a “Civil Aviation” Sub-Program, along with the “Transportation Strategy of the Russian Federation” adopted in May 2005 and in effect until 2020 are aimed at developing a coordinated surface, water and air transport system for the country.

Further growth in airport passenger throughput is also expected as a consequence of the Federal policy with respect to market access. Liberalization trends towards deregulation of international traffic rights will expand the presence of foreign carriers, operating to new destinations and with fewer restrictions on capacity. The ease of aviation policies will induce the proliferation of low cost carriers in a similar way that air travel in Europe was reshaped, allowing for a significant increase in city pair services. These low cost carriers will also play a critical role in domestic travel, absorbing traffic from other modes of transportation. Such has been the case of, for example, Sky Express that operates low cost services from Moscow's Vnukovo, accounting for as much as 24% of the seat capacity to Moscow. The progressive privatization of airlines and the entrance of new ones will speed up the process of fleet replacement with modern and fuel efficient aircraft. Airline efficiency and deregulation will result in more affordable travel within the country.

The main objective of the “Civil Aviation” sub-program is to use air transport to augment Russia’s economic growth and to improve quality of life through effective satisfaction of passenger demand for air transport services. The Sub-Program focuses on the development of air transport management technologies; airport development; modernization of existing aircraft to comply with ICAO noise reduction guidelines; development of ground-based air-transport infrastructure; improving flight-safety management systems; increasing supply of aircraft and simulators for civil aviation education institutions; and providing normative, legislative and scientific-technical support for civil aviation activities.

Russian aviation authorities have also drafted a strategy called the “Concept for Development of a Chain of Civil Aviation Airports in the Russian Federation until 2020”. The Concept strategy classifies all Russian airports according to their principal function, calculates investment needs and provides guidelines and targets for airport development. The strategy identifies 121 airports which will form the backbone of a chain of airports. Twelve of these airports will be international transit points each of whom is expected to host an airline, 22 airports shall be designated as key airports, and 15 airports will be required to ensure the connectivity of the network/chain. The chain will also include eight airports that were chosen on the basis of their

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5 The World Bank; Transport, Russia weblink
social significance (they are either located in big cities with large population centers, are resort cities or are cities at key central points in Federal okrugs) and 64 airports were designated as being alternative airfields. According to the Strategy, these 121 airports should never be closed – irrespective of their operating and ownership structures. The strategy estimates investment for the airport chain through 2015 at Rub. 870 billion with Federal authorities to cover 64 percent, 33 percent to come from regional sources and 4 percent to be sourced from public private partnerships. Regulators hope that the measures will increase air traffic in Russia from the current 38 million to 86 million passengers a year. Within the implementation of this strategy, KIA is entitled to receive a grant for the upgrading of the runway and taxiway system (airside facilities), which are considered federal assets and not subject to transfer to the private sector.

3 KAZAN INTERNATIONAL AIRPORT

3.1 Strategic Positioning of Kazan

Tartastan is located on the Northeastern frontier of Europe in the confluence of the Volga and Kama rivers. It is at a cross roads between Muslim and Orthodox Christian worlds. It is a secular republic with stability based on a high percentage of mixed marriages, official support for two languages and cultural tolerance. About the size of Ireland or Portugal, Tatarstan has four million inhabitants. As a transportation hub, Kazan serves a region encompassing over 80 million people.

Kazan is located 800 Km southwest of Moscow. It has a good location to develop major commercial routes (both tourism and cargo) with the following major markets:

- South and Central Russia
- Northwestern Russia (St. Petersburg) and Nordic countries
Eastern Europe and Baltic countries
Caucasus region, Turkey, Greece and Cyprus
Northern Africa (Egypt)
Central Asia
Western Europe

Such traffic and business development will require major upgrades and expansion of the facilities at KIA. However, the many times used maxim of “build it and they will come” will not apply in this case. Besides investing upfront in the airport development project, KIA and its strategic partner will have to work hard in the route expansion and business development of the airport. The GOT will need to link the KIA development strategy with the Ministry of Tourism development plans. Together, Ministry of Tourism and KIA, need to jointly develop a “reason” for passengers to “come to” or “pass through” Kazan. This strategy needs to address issues such as: (i) total hotel capacity, (ii) destination tourism programs (e.g., educational, religious, outdoors, etc.), (iii) access to foreign language assistance, (iv) visa requirements and (v) airline connectivity.

Similar strategies (i.e., route planning and expansion) as well as joint work with the Ministry of Industries and Planning will need to be developed for the cargo business. Partnerships will need to be built with major cargo operators in order to develop business based on Tartastan’s major industrial clusters (i.e., oil extraction, power, chemical and petro-chemicals, aircraft manufacturing, automotive) and agriculture production.

3.2 Description of Airport facilities

The KIA landside facilities consist of one main building for the processing of international and domestic traffic, and a second building for VIP and business class passengers.

The main building is subdivided laterally for arrivals and departures, in a single level configuration. Both arrival and departures halls have a reported capacity of 80 passengers per hour, posing serious constraints to the facilities during peak times in high season, where more than two operations coincide. For example, it has been reported that during the summer season, passengers for two Tatarstan Airlines flights are being processed jointly with a Lufthansa flight, causing serious processing disruptions. The situation will worsen with growth in the upcoming years.

For the 1,000th anniversary of Kazan, a new terminal building was built that is currently being used for VIP services, business travelers and occasionally economy passengers. While this building is currently underutilized, some efficiency improvements in its use will not resolve the problem of congestion of the main terminal building. The general layout of the main terminal building does not allow for the efficient processing of passengers, nor meets international standards of facilitation and acceptable levels of service. In addition, it has very little capacity for commercial development.

The airside comprises one big apron facing the terminal building, with ample capacity to accommodate expected demand, although in remote positions. The terminal building has sufficient front into the main apron to be expanded into a second level boarding area, with the

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6 Ilyushin 86 of 320 passengers
7 Airbus 321, with approximately 180 passengers
8 Over 650 passengers with a load factor of over 80%
implementation of parking stands served by boarding bridges. The runway system includes an old runway of 2,500 meters, which has been deactivated due to lack of maintenance. Flights are operated at the former taxiway, which has been converted into a 3,724 meters runway when the shoulders were incorporated into the runway to meet the 45 meters width requirement. While this runway is long enough to accommodate long-haul flights, its capacity is restricted by lack of a parallel taxiway. The runway is connected to the main apron by two connectors, located towards the end of the runway, requiring aircraft to roll down the runway for take-off or landing.

Navigational aids available are two ILS (Instrument Landing Systems) at each end, one of Category I and the other Category II. Seasonal foggy conditions require the equipment to be upgraded (to Category III), although that would require infrastructure modifications such as new taxiways (fast exits), different lighting and signaling, among others.

3.3 Market dynamics

There are three main dynamics affecting the market-based development of air transportation in Kazan:

- **Surrounding airports**: The airports of Kazan: Samara, Nizhniy Novgorod, and Ufa are all beyond a 4 hours drive. With such distances, none of them could be considered as a competitor for the origin and destination market of Kazan. However, since passenger traffic volumes in other airports have been greater than that of KIA for the past few years, they could have challenged Kazan as local feeding and distribution airport, if it wouldn’t be because of the proximity to Moscow, as the main hub of the federation. Other small airports within Tatarstan, with traffic throughputs of less than 150,000 passengers per annum, such as Bugulma and Naberezhnye Chelny are complementary, feeding traffic into the regional network.

- **Traffic connectivity**: KIA’s capability to develop origin and destination (O&D) traffic to international routes is challenged by the visa regime factor. The immigration rules make it necessary for passengers to travel through Moscow, inhibiting development of international links out of Kazan. The outbound passenger traffic from Kazan can only travel to countries with the policy of ‘visa at the port of entry’. This restrictive policy is limiting overall traffic connectivity. As an example, Moscow could be served by as many as twice the number of current frequencies (9 daily flights) under a more liberalized framework. In comparison, Samara is connected with Moscow by 15 daily flights. In addition, the considerable potential for seasonal charter flights relies on non-visa international destinations such as Thailand, Egypt and the UAE.

- **Protectionist aviation policy**: Relevant for airport development is the role and position of Tatarstan Airlines. The airline enjoys a protective environment where competition is limited by policies aimed at restricting the capacity offered by other airlines. The Republic has been adopting - informally - a policy of safeguarding the interests of the flag carrier, Tatarstan Airlines, by limiting market access to any foreign carrier that could erode its’ market share. In a similar fashion, but with lesser success, such protectionism has been implemented on a national scale, although pressure at the federal level has managed to achieve some liberalization, e.g. entry of the low cost carrier Sky Express on the Vnukovo-Kazan route. Although the Russian domestic market is not regulated, a great deal of protectionism in favor of specific carriers is being exercised at a regional level.
KIA management is eager to bring competition to the airport but is experiencing difficulties in developing routes that could jeopardize the market share of Tatarstan Airlines. The process of setting up new domestic routes from Kazan involves reaching a preliminary approval from KIA Company. The competitive landscape will not have much room for improvement as long as Tatarstan Government favors the Republic’s flag carrier over competing operators with intention to serve KIA.

3.4 Infrastructure Needs

KIA is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow's three airports. As the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with poor levels of service.

Tatarstan's tourism strategy involves developing Kazan as a tourist destination within the Russian and the CIS markets. At a later stage, it includes the promotion of the destination for the Eastern and Western European markets. However, aviation policies restricting entry access for new carriers and difficulties in obtaining entry-visas will limit any future development of international routes.

The following is a very preliminary assessment of the current infrastructure needs (based on visuals and traffic data). Accurate assessment of the infrastructure conditions as well as proper investment estimates should be done once KIA’s Master Plan is completed.

Airside infrastructure. The airport used to have a 2.5 kilometer runway, with a full parallel taxiway. Due to lack of maintenance and the need for extension, the runway was closed and the parallel taxiway (much longer, of 3,750) was widened and accommodated to become the main runway. While there are no immediate capacity concerns, due to the low level of traffic, it would be ideal to extend and rehabilitate the former runway (enlarging it over 1,000 meters). An extended runway with a full taxiway will provide significant additional capacity enough to cope with any future foreseeable growth. The airside navigational equipment (ILS, VOR, etc.) seem to be in good condition. However this would need to be confirmed in the KIA Master Plan. In addition, lack of adequate equipment which meets the requirements of international carriers is resulting in inefficiencies in operations, delays and additional costs to these airlines.

Ancillary Services (i.e., ground handling, transport, fuel farm, fire and rescue, etc.). Buildings and related infrastructure sustaining these services were constructed in the 70s with limited maintenance and rehabilitation. These infrastructure assets will need to be rehabilitated and modernized.

Passenger Terminal. The current passenger terminal is seriously constrained in terms of capacity. While passenger throughput is never limited by the terminal building, it does pose serious concerns in terms of the quality of service rendered to passengers, considered below any international accepted criteria. In addition, lack of appropriate equipment for passenger handling causes sever delays during peak time periods.

Based on a preliminary passenger forecast, the airport is to reach a 2.5 million passenger volume in a 25-year period. The main terminal building can be enlarged by an additional 30% to 40% space, including the rehabilitation of the second floor and the expansion of the building into the apron. With an expansion of this sort, including the incorporation of boarding bridges and a modern terminal layout, the building could be able to handle the expected growth in 2032.
Cargo terminal. Currently, there is a limited volume of cargo being handled at the airport. Local aircraft manufacturing (helicopters), spare parts for the oil industry and consumer goods are among the main items transported by air. While there are no forecasts available for cargo, it is not expected that this activity will be significant with respect to the overall activity of the airport. In terms of infrastructure upgrade of the cargo facilities, should be promoted by the private sector and should not be necessarily as an integrated part of the overall airport program.

Table 3.1: “Rough” Estimate of Investments Needs, KIA (2010-2019), MM of US$

<table>
<thead>
<tr>
<th>Infrastructure Type</th>
<th>Base Estimate</th>
<th>High Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airside (runway, taxiway, apron)</td>
<td>110.0</td>
<td>180.0</td>
</tr>
<tr>
<td>N. Passenger Terminal</td>
<td>180.0</td>
<td>250.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>290.0</strong></td>
<td><strong>430.0</strong></td>
</tr>
</tbody>
</table>

Note: Investment should be phased by carrying out passenger terminal improvements first and delaying airside works until 2017

Table 3.2

<table>
<thead>
<tr>
<th>Total investments (Rbl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airside</td>
</tr>
<tr>
<td>Landside</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Table 3.3

<table>
<thead>
<tr>
<th>Investments by year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airside</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Landside</td>
<td>675,000,000</td>
<td>1,350,000,000</td>
<td>1,575,000,000</td>
<td>900,000,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airside</td>
<td>550,000,000</td>
<td>825,000,000</td>
<td>1,375,000,000</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Landside</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

4 INSTITUTIONAL FRAMEWORK

The Ministry of Transport’s aviation policy supports a gradual liberalization of the market, promoting access and thus fostering traffic growth. Accordingly, responsible for the strategic planning of the sector, the Ministry has delegated all functions of operation, maintenance and investment of the KIA Airport by transferring the shares to the GOT. While federal regulations restrict the private sector participation in the operation of airside facilities (runways, taxiways and aircraft operational areas), landside operations have been included in the “principal privatization targets for 2006-2008”.

The current regulatory framework in Russia is suitable for the participation of the private sector in airport infrastructure, where airport, airline and air navigation services have all been completely separated into different entities. The technical regulatory body is the State Civil Aviation Authority and control on user fees and charges are set by the Federal Tariff Service, a Federal Executive Authority of the Government of the Russian Federation.

The Ministry of Transport is the policy making body for all transport in the Russian Federation. As such, is responsible for defining the country’s air transport policy including the definition of general and strategic plans for the sector. The Russian government started to show its commitment for liberalization of the domestic market with the 2002 abolition of the existing quota system. Since then, the government has been promoting strategic alliances at both a domestic and international level while the airlines are getting ready for competition.

Part of the government policy has been the adoption of a process of gradual improvement of the competitiveness of Russian carriers by adapting to international, commercial, environmental and service-related standards. Consequently on April 2006, Aeroflot, which is still 51% state owned, joined the Sky-Team Alliance and is undergoing a significant fleet modernization program, including the purchase of 22 Boeing 787-8s.

In a similar note, another purchasing order was announced for 25 Boeing 787s, commissioned by S7 (formerly Sibir Airlines), which serves the Kazan-Moscow route, accounting for as much as 12% of the total capacity offered. These announcements are the first signs of a major fleet upgrading transformation that will reshape the domestic aviation market within the federation and the CIS countries. Within the Russian Federation only, over 95% of the existing aircraft were designed between 1960 and 1980, and it has been estimated that over 1,600 airplanes in operation do not comply with ICAO noise standards.

In terms of international policy, the Ministry of Transport regulates market access to air carriers through the negotiation of bilateral (and multilateral) air services agreements with other nations (or group of nations). Those agreements regulate traffic rights, designation of carriers, tariffs and other issues such as safety and airport facilitation.

Traditionally, access into the Russian international market has been heavily regulated, with specific definitions of designated carriers, points of entry and capacity (including number of frequencies and types of aircraft). The government seems committed to ease regulations towards a more liberalized international market, stimulating competition which will increase traffic even further and foster investment in the sector.
5 KAZAN AIRPORT ECONOMICS

5.1 Main Constraints in Airport Revamping

One of the major challenges with the upgrading project of KIA is the relatively substantial level of investment required with respect to the traffic projections of the airport. It has been explained that after many years of lack of investment and poor maintenance, the airport facilities are not suitable to provide an acceptable level of service. The situation is exacerbated with the increase in traffic and the new demands for service levels not expected during the Soviet times. The expansion and upgrading of the facilities involve the implementation of modern structures and technologies, with much higher levels of performance and comfort than those considered when the airport was built. Such expansion requires significant capital expenditures.

On the other hand, the airport does not generate today sufficient financial resources (cash flow). It is expected that with the introduction of the private sector, significant improvements will be achieved in cost management. Efficiencies in operation and the implementation of technologies will result in cost savings and higher performance levels.

In addition, significant upside potential is expected to derive from the maximization of commercial revenues. The development of commercial activities, following international practices, and the expansion of the building, providing additional areas for commercial exploitation, will increase the revenue base per passenger. Both effects, the upside on revenues and costs savings, will be key in the improvement of the financial results from operational activities.

An additional challenge relates to the traffic patterns and expectations of Kazan. Without a strong local carrier, and given the proximity of KIA to the country’s main hub (comprised of the three largest airports), there are very limited possibilities to develop a hub. Therefore, the airport will remain dependent almost completely on origin and destination (O&D) traffic. Moscow’s airport, and in some extent St Petersburg, will remain to be the Federation’s gateways, with no room for another entry point in the Western side of the Urals.

While the future of Tatarstan Airlines, the only home base carrier, is uncertain, the O&D traffic will not be at risk. Any loss in market share of Tatarstan Airlines will be picked-up by the other carriers. Also, because of the lack of a significant mass of connecting traffic, there is no additional traffic that could be diluted with a reduction in the operations of the home base carrier. However, the restrictive aviation policy of protectionism towards Tatarstan Airlines has been a limitation in the O&D traffic growth of the city. Any further liberalization would allow more capacity in some of the more protected routes, lowering air fares and generating additional traffic. It is being feared that a liberalization trend will generate the bankruptcy of Tatarstan Airlines; however that has not been a guarantee either. On the other hand, if the company ceases operations, the aviation policy of the Republic may become more relaxed, with the subsequent impact on traffic growth.

Ultimately, traffic will be a function of the City Government to address the main issues restricting traffic today: hotel capacity, development of the tourism product (like city appeal, historical sites, academic center, conferences, conventions, etc.) and the increasing role in the country’s economy. Also the active promotion of new routes into new and uncontested markets could induce additional outbound traffic.
5.2 Traffic Patterns

A preliminary traffic forecast of passengers and aircraft movements have been carried out for KIA for a 25 year horizon. Econometric and market research methodologies were combined to make an estimation that constitutes the main driver of the financial analysis.

Traffic growth will be derived from the continuous expansion of the Moscow route, the development of new domestic links, and the progressive increase in traffic into CIS countries. The connectivity to European's main hubs will grow at a slower pace, assuming that these markets will be mostly served through Moscow. While the current European operators may increase their capacity to Kazan, there are no expectations that these routes will increase significantly in the near future.

KIA is to remain an intra-Russia and regional airport servicing needs of city of Kazan and surrounding areas within the Republic of Tatarstan

There is virtually no competition from surrounding airports. Origin and destination traffic of Kazan is greatly concentrated in the city and the surroundings, and all of the main airports are beyond the effective catchment area.

Due to the lack of a strong local carrier based in Kazan, there are limited expectations for significant traffic connecting at the KIA. Therefore, no competitive issues are relevant when assessing future traffic expectations.

About 732,000 visitors arrived in Kazan during 2007, based on hotel statistics. The visitors’ growth rate is expected to continue at the observed trend of 10% per year, fueled by the increasing development of local tourism. There are approximately 400 travel agencies in Kazan, of which up to 70 are focused on inbound tourism. The number of nights per stay is increasing, with an average of between 3 to 5 days.

Due to the high seasonality experienced in tourist arrivals, the hotel capacity is saturated during peak periods, while the overall occupancy throughout the year remains quite low (30% for 4 and 5 star-rating hotels, and below 70% for lower rated hotels).

The Government officials have assured the Bank that they are working toward Tatarstan inclusion in the list of free economic zones in Russian Federation to facilitate the growth of
tourism. It seems from the discussion that the bulk of this tourist traffic is regional and at best FSU-wide. The Bank has requested Tatarstan tourism data by nationality of travelers and type/mode of transportation as such breakdown is extremely helpful for market analysis and for forecasting future passenger traffic.

Also, the officials envision the growth of business tourism fueled by continuous development of industry and the natural resources sectors in the Republic.

**Figure 5.2: Passenger Forecast by Destination**

![Traffic projection (base scenario)](chart)

**Figure 5.3: Aircraft Movements Forecast, by Destination**
5.3 Analysis of the airline market

The World Bank conducted market analysis by examining the available capacity at KIA on scheduled commercial flights. It is based on available seat capacity rather than actual traffic, since traffic figures from the airlines are not available. The analysis used information obtained from OAG (Official Airline Guide)\(^9\) of scheduled non-stop flights departing KIA.

KIA is served by 11 airlines with flights to 22 destinations: 13 domestic and 9 international. International destinations are located in Eastern and Western Europe and Asia. Of the total number of flights out of Kazan, 84% are to destinations inside the Federation, 7% to Europe (Germany and Turkey) and 9% to CIS countries. The following figure (Figure 5.4) shows the distribution of capacity, measured in number of seats, by airport of destination.

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\(^9\) OAG comprises information of all reservation systems about scheduled commercial flights.
Almost 60% of the total capacity offered is concentrated towards Moscow’s three airports: Domodedovo, Sheremetyevo and Vnukovo. The top 6 airports concentrate 77% of the seat capacity, with the remaining 23% distributed among 17 airports.

The following figure (Figure 5.5) shows the seat distribution by carrier:

**Figure 5.5: Seat capacity by airline**

Tatarstan Airlines is the dominant carrier out of KIA, with 44% of the seat capacity, followed by Sky Express and S7 Airlines, with services mainly to Moscow, with 14% and 12% each. Only three carriers from outside the Russian Federation operate regular flights to Kazan: Lufthansa, Turkish Airlines and Uzbekistan Airlines.

Lufthansa is the longest standing foreign carrier in Kazan, operating for over ten years. The airline started with 2 weekly flights, and over time has increased to 4 weekly flights from Munich.
(for the last 3 years), with an intermediate stop in Samara on both ways. Depending on the season
the airline operates the route with A319 or A320 (and A321 during peak times such as Christmas
or special events), of which between half to two thirds of the capacity is taken by Samara. Almost
all traffic (95%) connects in Munich to destinations ‘beyond’, most of them throughout Western
Europe and North America. Lufthansa is not planning to increase the flight frequencies, while
they can still increase capacity to Germany by offering direct flights (without the stop in Samara).
Turkish Airlines operates 2 weekly flights to Istanbul, with either Boeing 737s or Airbus A320,
depending on the season. During the summer, Turkish Airlines also operates charter flights to
Antalya, with up to 3 weekly flights. It has been reported that Turkish Airlines requested an
increase in the number of flights to Istanbul, however the local authorities denied the request. The
route to Istanbul is also operated by Tatarstan Airlines, and local authorities fear that any increase
in the capacity offered by Turkish Airlines may erode Tatarstan’s market share.

The great majority of the capacity is offered by Tatarstan Airlines (U9), with as much as 44% of
the number of seats available out of KIA. The airline has focused on those markets where it is the
sole operator. Tatarstan operates to only three destinations on a competitive basis: Moscow,
Istanbul and Tashkent. On those markets, the strategy has been based on offering lower air fares,
although not necessarily by lowering the operating costs, resulting in a reduction in operating
profit.

The progressive increase in competition in the routes to Moscow by the entry of other carriers,
offering better service and good prices, has been eroding the overall load factor of the airline,
from 65-70% to 55-60%. Sky Express and Sibir (S7) are the most important competitors to
Tatarstan Airlines, jointly offering as much as 45% of the seats to Moscow (against 47% of U9).
Sochi, Istanbul and St Petersburg are the three next markets in importance for U9, although it
faces competition only on the route to Istanbul. The relative proximity of Moscow, and the
competition from near-by airports like Samara or Ufa, rules out any realistic possibility of
developing Kazan as a connecting point within Russia (a hub).

The airline is currently facing a general financial crisis that is disrupting the possibility of
implementation of any strategic plan. In addition, the airline is being forced into a major fleet
replacement program in order to operate any international (or inter-CSI) destinations. Orders for
acquiring up to two Canadian aircraft (Bombardier CRJ200 50-seaters) have been placed, and it
is expected that those planes will be allocated to domestic routes. Plans for the operation of
medium haul and European routes are unclear.

The current situation of Tatarstan Airlines, resulting from a financial crisis accentuated by the
pressure of the fleet replacement program, poses serious doubts about the capability of the airline
to develop the local aviation market. At the same time, the current aviation policy of favoring
the national airline is restricting access to new entrants and the increased of presence of incumbents.
KIA’s traffic development will depend on the relaxation of regulatory access into the market,
allowing an increase in capacity to satisfy traffic demands.

5.4 Competitiveness of Kazan’s Airport

As explained above, all of the surrounding airports with relevant commercial services are out of
reach of the relevant catchment area of Kazan. In addition, the proximity of Kazan to Moscow
diminishes the appeal of Kazan to develop a connecting hub to feed or distribute traffic into
Eastern Russia. Therefore, it cannot be claimed that there is a competition risk for Kazan.
However, the analysis of the competitiveness of Kazan addresses the comparative advantage that
the city may have as opposed to other comparable cities, in terms of economic development
derived from the air transport activity.
A comprehensive benchmarking analysis on airport fees and charges has been carried out comparing Kazan with the following airports (Annex 1 has the full report):

<table>
<thead>
<tr>
<th>Country</th>
<th>Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Azerbaijan</td>
<td>Baku – Heydar Aliyev International</td>
</tr>
<tr>
<td>2 Georgia</td>
<td>Tbilisi International</td>
</tr>
<tr>
<td>3 Russian Federation</td>
<td>Kazan International</td>
</tr>
<tr>
<td></td>
<td>Moscow – Domodedovo</td>
</tr>
<tr>
<td></td>
<td>Moscow – Vnukovo</td>
</tr>
<tr>
<td></td>
<td>Novgorod</td>
</tr>
<tr>
<td></td>
<td>Perm - Bolshoye Savino</td>
</tr>
<tr>
<td></td>
<td>Samara - Kurumoch International</td>
</tr>
<tr>
<td></td>
<td>St. Petersburg – Pulkovo</td>
</tr>
<tr>
<td></td>
<td>Yekaterinburg – Koltsovo</td>
</tr>
<tr>
<td>4 Ukraine</td>
<td>Kharkiv International</td>
</tr>
</tbody>
</table>

Source: World Bank estimates

The main conclusions of the analysis are the following:

- **Landing fees**: KIA is the fourth most expensive in the sample and the third most expensive in the Russian Federation for day operations. While this is certainly not an advantage for Kazan, it also leaves little room for implementing any increasing in charges aimed at improving the financial capabilities of the airport to afford the required capital expenditures.

- **Aircraft parking charges**: KIA is the second cheapest airport within the sample. While this feature may represent a comparative advantage, it is of relative importance. Most flights do not stay on the ground at KIA for a period of over 90 minutes, and such lapse of time is included as free parking after landing.

- **Passenger facility charges**: KIA’s charge is USD 8.03 per departing passenger, resulting in one of the least expensive airports in the sample (only Samara and Perm have lower values). Other airports feature charges as high as USD 31 (Baku). Moscow's airports of Domodedovo and Vnukovo charge USD 12.8 and USD 9.0 respectively. On a comparative perspective, Vnukovo's charge may leave some room for a slight increase in the passenger charge, should such a policy may become a priority for the airport management.
To conclude, a comparison can be made by summing up all the fees and charges applicable to the passengers and the airline, for a specific operation (assuming a particular type of aircraft and for a specific moment of the day). The analysis is then carried out for a "turnaround", referring to all the activities that take place on the ground between flights. The comparison includes landing fees, parking fees, all fees on passengers, security and charges for the use of navigation aids. The calculation was performed for an Airbus A320 aircraft\(^\text{10}\), for two turnaround times (of 2 and 4 hours) and for daylight and night operations.

The following graph (Figure 5.6) compares turnaround costs including landing fees, parking fees, passenger facility charge, security and navaid.

![Figure 5.6: Airbus A320 turnaround cost (daylight operation)](image)

Source: World Bank estimates

It can be seen that KIA is at slightly higher levels of costs than Moscow’s airports, but still significantly cheaper when comparing with Baku, Tbilisi, St Petersburg and Yekaterinburg. The airport can be considered competitive based on the current costs, and could eventually afford a slight increase in the fees levied on passengers without a significant impact.

### 5.5 Projection of Airport Revenues

Also, it is important to point out that all of the airports in Russian Federation will gradually be adopting the international tariff structure based on flight destination rather than on carrier origin. While the current system charges by the nationality of carrier (Russian v. foreign), international norms allow only the discrimination of charges by the location of the destination (international or domestic flights). There is a progressive international pressure for the adoption of these structures that are not protective of carriers based on their nationality. While there are no expectations that tariff structure changes will result in forecast changes (there is little elasticity of passenger demand on airport charges), such reforms will have an impact in the airport’s economics.

The progressive fleet replacement program that is already taking place within Russia and the CIS countries will also have implications in the economics of the airports. On one hand, new fleets will result in more efficient services, with a derived increase in frequencies. On the other, new

\(^{10}\) Turnaround cost for the Embraer 170 and Boeing 787-8 can be found in the Appendix 1.
aircraft are lighter in proportion of their capacity, representing fewer revenues from weight-calculated charges.

Figure 5.7: Breakdown of projected revenues

5.6 Labor

Kazan International Airport has been gradually increasing its employee base from year to year: 1,074 in 2005, 1,123 in 2006, and 1,141 in 2007. Labor and benefits is the largest O&M expense item on KIA P&L now and going forward (see Figure 5.8). The labor levels and efficiency parameters are far below those in comparable airports. For example, only 610 passengers were serviced by KIA per employee in 2007 while comparable airports serviced about 4600 passengers per employee.
Success of the airport as a stand-alone entity, improvement of KIA’s income and cash flow profile, and enhancement of the KIA appeal to private sector market players is largely dependent on streamlining its employee numbers along the ones of comparable airports. This point was also mentioned in our report as of 2007 where a conclusion was reached that historical costs amounting to 50%+ of total O&M expenses is too high and should be managed downwards. A drastic cut to employee numbers should be considered by KIA, if labor law and union environment will allow for such action to be taken. Involving the private sector in the management of KIA could spur constructive discussions and progress in this matter.

Even at the calibrated rate assumed for projected labor costs growth in the pre-feasibility model, the historical level of labor and benefits expenses is above and beyond the norm. It is vital for KIA to develop a business plan that will detail such costs and allocate them to each service line of the airport for the purpose of monitoring and managing the needed reduction of these high labor costs. Downsizing and re-deployment of employees may prove a difficult challenge for the management of KIA and might hinder potential public-private partnership transaction(s), yet is a necessary step that KIA management should consider.

6 PPP OPTIONS AND PROPOSED PSP STRATEGY

As a response to the urgent need for infrastructure development of Kazan International Airport and based on our initial analysis, it is recommended that a scheme be considered where the private sector is initially involved in the operation and management of the airport, with a view to subsequently involving the private sector in the wider role of infrastructure development (including finance), operation and maintenance of the airport. Given the regulatory restrictions that prevent private participation in the ownership of the airside infrastructure, the longer-term option would be a Master Concession Agreement that combines two different schemes, one for the airside facilities and one for the landside facilities. The preferred option for the landside would be a 25 to 30 year BOOT (Build, Own, Operate and Transfer) for the development and expansion of the terminal. For the airside, an Operation & Maintenance (O&M) arrangement would allow the Government to undertake and finance the
development, whilst the concessionaire would be responsible for the maintenance of the facilities.

6.1 Public-Private Partnership (PPP) as a procurement method to encourage private sector participation (PSP)

PPP is a partnership between the public sector and the private sector for the purpose of delivering a project or a service traditionally provided by the public sector. PPPs recognize that both parties have certain advantages relative to the other in the performance of specific tasks. By allowing each sector to do what it does best, public services and infrastructure can be provided in the most economically efficient manner.

Figure 6.1: PPP Options – Increasing Extent of Private Sector Participation

Private sector participation in airports, through ownership, management, or new investment programs, can take many forms, including outright sale of shares or assets (full privatization), concessions, long-term leases and operation and maintenance (O&M) contracts. Choice of structure has implications on level of investment (and associated risk) and desired return for the private partner. To date, private sector management has focused on landside concessions, but governments are increasingly seeking to involve the private sector in the provision of airside services as well.

With respect to PPP options, it is important that the government recognizes the value of developing such projects correctly before tendering them, and the value of tendering them through an open and transparent bidding process. The government needs to be aware the single sourcing or directly negotiating transactions of this nature are not recommended procurement options; such an approach often leads to poorly structured, expensive projects with a higher failure rate. By using competitive pressure in the tendering process, the government can drive down pricing and improve revenue sharing opportunities with the investor. In assessing the potential for competition, the most important factor is likely to be the scale of the market for air transport and its growth potential in the region.

The decision on whether the government wants to invite private sector participation or retain a public sector investment structure should be made based on its own policy objectives, considering how much value added or value-for-money (VfM) a private sector option can generate and what is the potential for risk transfer/sharing. It would be useful to compare the provision of investments and services by purely public versus a combination of public-private provision. If during this process, and ideally having developed a suitable public sector comparator (PSC) benchmark, the decision has been reached to go for private sector investment,
Given the weak financials of the airport and uncertainty of traffic growth, some form of public financial support will be required. It may take form of a government guarantee, public funding or capital grant (or a combination of these). Which ever approach is adopted, the government must be capable of supporting the fiscal cost of financing the airport.

Depending on how much risk the private sector is willing to take, the government might need to step up as an active investment partner to attract good quality service providers. Unless the government and KIA understands the realistic market growth potential and available investor’s appetite, choosing to introduce PSP competition might not result in a positive outcome. Thus, even if private sector investment appears to be financially viable, there may be insufficient appetite in the market (risks seen as too high, lack of PPP track record in Tatarstan etc) for a full scale private sector funded PPP project. In such a case, the government may be better advised to initially consider a lower risk transfer arrangement such as a performance based operation and management contract (with public funding of investment) with an option to subsequently enter into a more comprehensive PPP arrangement (eg concession) at a later date.

In the long term, the government’s financial position should improve if airport infrastructure investment and provision is less dependent on limited government funding. However, placing too much emphasis on maximizing the proceeds from the sale or lease of assets, or on retaining rights to profits can lead to immediate difficulties and the need for costly contract renegotiations. There is a need to balance the government’s desire to maximize proceeds whilst ensuring the long term viability of the airport. The objective should be to optimize the balance between risk transfer and project cost. This implies that the government should seek the best possible deal from the private sector by encouraging competition through international competitive bidding. The private sector is profit driven, and thus will minimize costs and work on maximizing revenues through more efficient provision of infrastructure services. In this case, the government will select the best service provider as its partner. However, if there is no competitive bidding arrangement the investor is likely to seek profit maximization, thus compromising on quality of service at the City’s expense. Moreover, if there are problems in contract management and project implementation, the private partner will have the upper hand since it enjoys quasi-monopolistic position. This is likely to increase the cost to the government further than originally estimated.

6.2 What are the options for Public-Private Partnership?

Optimal provision of the infrastructure requires allocation of responsibilities for the following:

1. Asset design and “build,”
2. Finance for asset delivery, and
3. Asset ownership.

The organizational responsibilities that complement the assets include the following:

4. Operations and maintenance,
5. Revenue collection, and
6. Management of the organizations vested with 1-5.

There are typically two major motivations for introducing PSP in airports: 1) need for investments (including capacity expansion, rehabilitation, improvement, etc.) when public funds are not available or are limited (because there are other priorities or because it is a matter of national policy that the state does not get involved in airport development), and 2) need for better management to improve operational efficiency and service levels (even without the need for
private sources of investment) Both motivators are present for KIA, and in this respect it is, therefore, critical that attention is focused on integrating all 6 aspects for the development of KIA as a PSP/PPP project.

In figure 6.2, the horizontal axis labeled “PSP Type” represents the extent of PSP, which increases when more of responsibilities 1 to 6 are allocated above the line to a single (or multiple) private sector firm(s). Each of the models of PSP that are shown in figure 6.2 is described as follows.

**Design and Build (D&B).** Traditionally, infrastructure was financed mainly by taxpayers (through subsidies and other types of financial support), rather than users (through charges). Governments had their own building departments and construction workers were government employees. Slowly, governments decided to subcontract “build” and, increasingly, design of infrastructure to specialist private firms. Governments and their employees retained all other responsibilities.

**Design Build Finance (DBF).** Pressure on government revenues from taxation has required them to borrow for infrastructure investments from quasi-private (for example, development banks) and private lending institutions. Other than the design and build functions, all other responsibilities remained vested with governments. In these cases, subsidies might be reduced to the levels of operating and maintenance costs.

**Design Build Finance Maintain (DBFM).** In this model, responsibility for asset maintenance is also subcontracted to specialist private firms, for which they typically receive fixed payments. Performance payments for maintenance, however, may be implemented in order to provide the incentives to the private firm for rapid maintenance to keep equipment in operation.

**Design Build Finance Operate Maintain (DBFOM).** In this model, the role of private firms is further extended to include operation of the infrastructure, typically in the same manner as the maintenance function.

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**Figure 6.2: PPP Options in Airport Infrastructure**

Private Sector Participation in Air Transport Infrastructure Booz Allen World Bank
The DBFM and DBFOM options usually involve contracting out, incorporating the provision of specific operational and maintenance functions by the private sector in return for a fixed (or pro rata) fee(s). There is no requirement to invest and no returns from the infrastructure accrue to the provider of these functions. The contract, however, could be performance based, in which case there might be some dependence on the revenues and profitability of the airport (or of the activities for which the contracted party is responsible if they can be isolated). Contracts are often structured such that the contracted party receives a share of airport revenues, while paying a lease or rental charge to the airport owners, in which case they bear some of the revenue risk. Maintenance and cleaning functions usually involve short-term contracts (one year or less) that may or may not be performance based.

Operations management contracts would generally assume longer terms. Examples of these include the 6-year management contract from the Cuban Government to Aeropuertos Españoles y Navegación Aéreas (Spanish Airports and Air Navigation) to run the new airport at Cayo Coco and the 15-year management contract to operate facilities at Guangzhou Baiyun airport granted to Guangzhou Baiyun Airport Facilities Management and Operation Company. Management contracts allow the private sector contractor to transfer best practice across a range of airport activities, which might include elements of investment, thereby reducing costs and enhancing revenues and improving standards of services. They have been almost exclusively applied by public airport authorities in developed OECD countries as a means of improving service quality and the financial performance of the airport. In developing countries, the stimulus to engage the private sector is more frequently related to securing additional funding for investment projects and for gaining the benefit of private sector skills in project management.

**Design Build Own Operate Transfer (DBOOT).** In this model, private contractors are hired to design and construct the project, obtain finance, and operate and maintain the facilities. Ownership of the facilities is later transferred back to government.

**Design Build Own Operate (DBOO).** This is the same as DBOOT, but without transfer back to the government.

The DBOOT and DBOO models are common concession formats, in which case the contractor controls project design, construction, operation, and maintenance of facilities. They usually involve a combination of equity investment and debt finance. The extent and scope of the private sector operator’s responsibilities can vary. For example, it may cover financing and operation of all airport assets, or it may only cover a particular facility, such as a terminal. They can include commitments to investment programs aimed at expanding capacity and can involve different levels of revenue risk-sharing through, for example, different concession fee structures. Examples of relatively long-term contracts for managing and operating facilities include Argentinean airports, Mexican airports, Tirana Mother Theresa Airport, and Athens International Airport. Concessions for terminal management and operations exist at Budapest Ferihegy Airport and Terminal 3 at Toronto Airport, while El Dorado Airport in Bogota operates a unique concession for runway management and operations.

Concessions are often awarded to a consortium of companies. Their makeup might depend on factors such as the nature of the project and the extent of any constraints imposed by government; for example, many governments require a significant or majority stake-holding by indigenous business. Projects involving construction and operation of passenger terminals will usually involve an airport operator alongside local construction companies and investment banks. Shareholders take limited equity stakes (perhaps 5–10 percent of funding) in a vehicle for the consortium (typically a firm with a new name), with the bulk of finance coming from debt or development bank funding.
Other forms of partial privatization include the joint venture/strategic partnership model. They usually involve a private sector firm acquiring a stake (often a minority shareholding) in an SOE, which, in turn, provides a vehicle for introducing private sector finance and operational expertise in order to directly relieve public financing constraints and to improve operational and financial performance; for example, Osaka Kansai Airport, constructed by Kansai International Airport Company, two-thirds of which is owned by central government. Partial divestiture models expose the business to at least some external capital market discipline. Examples include Fraport in Frankfurt, Flughafen Wien in Austria, Unique owning Zurich Airport, and the international airports in Thailand.

**Privatization.** Full privatization involves the transfer of ownership of assets and control of the business from a public corporation to private investors through a flotation or a trade sale. The privatized entity is subsequently responsible for operating the facilities and financing investments, either internally through retained earnings or externally through the issue of new equity or debt. Public flotations involve the sale of equity to institutions and the public (generally through initial public offerings, or IPOs). Divestiture to the private sector may be complete or incomplete and may take place in more than one stage. Public flotations reach the widest possible range of private investors and institutions. It is the most costly, however, in terms of marketing and preparation. A feature of U.K. privatizations is the retention by the government of the so-called golden share, enabling intervention on decisions with long-term strategic importance or issues affecting the public interest.¹² It requires that certain provisions of the privatized company’s Articles of Association (dealing with the relationships between shareholders) cannot be changed without the specific consent of the golden shareholder. They typically involve measures to prevent concentrated shareholdings.

**Private sales.** Private sales in general can take two forms: private placements and trade sales. Private placements usually take the form of sale to a consortium of commercial companies, one of which will take responsibility for managing the enterprise. A trade sale usually involves a competitive tendering process. Selection criteria will usually focus on the price that the tenderer is willing to pay and assurances on meeting public service obligations. Trade sales, however, may entail a negotiated sale with a single potential buyer.

**Management buyouts.** Management buyouts involve the managers acquiring ownership and control of the assets of the business. Such privatizations led invariably to highly leveraged companies, with the assets acquired used as security to borrow a large part of the purchase price. They tend not, however, to remain leveraged for very long. Managers usually become either very rich or, sometimes, bankrupt. If there is a high risk of this, it may be wise for governments to investigate pre-prepared backup options to pick up the pieces.

**Long-term leases.** Long-term leases involve payment of a (periodic) fee for rights to control (manage) and operate the infrastructure. In some cases, ownership of the infrastructure is transferred in the future to the lessee for a nominal charge. The lease may be tradable and the lessee retains rights to all revenues earned. Examples include the Canadian and Australian airports. The Australian model has been interpreted as the transfer of management control from government to the private sector. The Australian federal government has entered into long-term 50-year leases with consortia of private businesses. Government cedes control over day-to-day and year-to-year operations, while maintaining discretion over what kinds of long-term facilities and changes to the airports can be made.
6.3 Scope of Private Sector involvement in KIA

**Market Testing:** For KIA the government will need to assess market/investor appetite for PPP options in Tatarstan. Some kind of market testing is recommended that would encompass:

- Investors
- Airport Operators, Contractors, Airlines
- Lenders (local, regional, international, IFIs)

This might be achieved through the seeking of expressions of interest in the international press.

**Phased approach to PPP:** in many developing and lower middle income countries a phased approach to the introduction of PPPs has been adopted – especially where there is a lack of institutional capacity and experience in developing such transactions. In such instances a simpler PSP model is initially adopted (eg management or O&M contracts), followed by a gradual increase in private sector participation (and associated risk transfer to the private sector) over time. This graduation can be seen by moving from left to right on figures 6.1 and 6.2.

The government should be prepared to consider this approach if initial feedback from market testing indicates that such an approach may be more appropriate than starting further along to the right of the PPP axis (eg BOOT type structures).

The initial tendering of an Operation and Management Contract would mobilise private management expertise to help improve the efficiency of operations at KIA whilst minimizing risk exposure to the government until it builds up sufficient institutional capacity to develop and manage more complex PPP transactions.

**Master Concession Agreement Model for PPP**

The government, may however, prefer to adopt a more high risk strategy for developing KIA on a PPP basis – on the assumption that there is sufficient market appetite for such an approach, and that the government can allocate sufficient resources (funds, qualified and experienced staff) to develop and manage a more complex PPP structure.

Due to federal regulations that prevent private sector ownership of airside facilities, and recognizing the current financial condition of KIA, the project could mix two different approaches for the PPP in the landside and the airside.

- For the landside investment and operations, KIA would transfer to a special-purpose-company (SPC – Concessionaire) the responsibility for management, operation and investment for all facilities related to the processing of passengers at the terminal buildings (international and domestic) and all premises located outside the operational area13 of the airport.

- For the airside, KIA should transfer to the same SPC the responsibilities for operating and maintaining the facilities that would remain under federal ownership.

Both approaches will be combined via a **25 to 30 year master concession agreement (MCA)** stipulating rights and responsibilities of the grantor (i.e., City Government) and of the concessionaire (i.e., private sector party in the PPP scheme).

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13 Areas dedicated to movement of aircraft and other facilities or zones on the aerodrome vital to the safe operation of aircraft
The SPC (concessionaire) should be responsible for the following operational activities:

- essential airport activities: provision and operation of the facilities for the processing of passengers and baggage involved in the interface between land and air transport (provision of spaces inside the terminal: areas for check-in counters, security, immigration, boarding, arrivals, governmental agencies and access to surface modes of transportation)
- regular and preventive maintenance of the airside facilities in coordination with KIA
- commercial activities aeronautical related: all ramp services provided to aircraft on the apron, including loading and unloading of passengers and baggage (through boarding bridges, vehicles, loaders, etc.); provision of in-flight catering services and line maintenance services to aircraft
- purely commercial activities (provision of all services within the terminal building and the landside): of food and beverage, travel retail operations (duty free and duty paid), renting of spaces to airlines and others, access to ground transportation providers, car parking, hotels, development of real estate, advertising inside and outside the terminal buildings, etc.
- In addition, further consideration should be given to the inclusion in the concession agreement of the responsibilities to further develop the cargo business at KIA. This could represent an interesting option to include in the investors consortium interested in bidding for the Kazan airport expansion a well known air cargo operators. Cargo operations could also be considered separately from the new terminal concession.

In addition, the SPC will be responsible for the following development activities:

- carry out the construction of the landside facilities, according to the design provided by KIA
- financing all landside development activities at the airport, through a combination of public and private finance

Air Navigation Services (ANS, or Air Traffic Control) would remain under the responsibility of the State Air Traffic Management Corporation of the Russian Federation. This involves the approach services of aircraft until they pose in the runway, and the movements of aircraft on the ground until engines are stopped and chocks are set to break the aircraft wheels. Aircraft will then become the responsibility of the ANS when chocks are withdrawn and the aircraft commences its movement, either by its own engines or assisted.

**Landside Option 1: DBFOM(Design, Build, Finance, Operate, Maintain) or BOT (Build, Operate and Transfer):**

Under the DBFOM option, the private sector is engaged in providing managerial expertise in the operation and development of the business, and to carry out the investments in infrastructure. Public ownership of the assets is retained and management, operation, and investment are contracted out. This formula allows for the transfer of design, construction, operation and financing risk to the private sector for a specific period of time.

The BOT model does not involve any ownership transformation, and the private sector receives assets in the form of a concession or lease, with responsibilities to maintain and to operate, for a
limited period of time. At the end of the concession or lease period, the responsibilities for the 
operation of the airport revert to the government.

The term of the concession [or lease] usually depends on the original motivation that generated 
the participation of the private sector. Typically, the private sector gets involved in developing
the infrastructure through investing, as well as to provide professional airport management.
When investing is the main motivation, the term of the lease is determined by the necessary
period for the private sector to recuperate the investments (debt repayment plus equity returns).
Leases are significantly longer in countries when governments do not have restrictions on private
ownership of public infrastructure.

**Landside Option 2: DBOO (Design, Build, Own, Operate) or BOOT (Build, Own, Operate and
Transfer):**
The second option, which is a variation of the BOT, implies the partial or temporary private
ownership of assets. The private sector is also involved in operation, development and financing,
but owns the facility for a specific period, after which the ownership of the facility is returned to
the City Government.

The capital expenditure required for the development of landside facilities is about Rubles 4,500
million. All of the cash disbursements are expected to occur within the first 4 years. However,
value creation from business development [commercial revenues] will take some time. At the
early stages, most cash flow will be generated from regulated aeronautical services. While there
is great potential of value generation from commercial activities, it will take over 5 years to be
fully developed, mostly dependent on the completion of the new terminal. In summary, the lead-
time of the project is relatively long compared to the associated up-front costs, which are
significant.

**Airside Option 1: O&M (Operation & Maintenance)**
Given federal regulations that prevent private sector participation in ownership of airside
infrastructure, and the proposal by the government to fund airside investments using federal
grants, under this scheme the functions involved in the operation and maintenance of the facilities
throughout the period of the master concession will be transferred to the concessionaire. Capital
expenditures related to airside facilities are expected to be around Rubles 2,750 million. Funding
for these investments will need to come from public sources, either City or Federal

**The Master Concession Agreement (MCA)**
The scheme selected for the development and operation of the landside facilities and the one for
the operation and maintenance of the airside facilities are to be combined under a single Master
Concession Agreement. The same private sector party is engaged for a period of 20+ years to run
both the landside and the airside facilities, blending the two different schemes under a single
agreement.

Such a master agreement allows for significant economies of scale in the development and
maintenance, while combines expertise normally found in the same firm. It is customary around
the world that the same company develops and operates both the airside and the landside. In
addition, blending both schemes allows for the cross subsidization of development and
maintenance of the airside, through the complete operation of the landside.
7 RISK ASSESSMENT MATRIX

The BOOT concession model is subject to several risks as described in the next section. Among the most important risks for investors (and lenders) are those affecting debt service payment capacities of the concessionaire, and include: (i) relationship with the federal government (transfer of shares and tariffs approval), (ii) traffic concentration by Tatarstan Airline, and (iii) current legal risks affecting all concession contracts in the Russian Federation.

7.1 Political and Regulatory (Contractual) Risks

These are risks known as non-project related risk, typically under the influence or domain of government authorities (both at the federal and local level). Sponsors (i.e., private sector party to the PPP arrangement) and lenders usually have very limited (or not at all) influence in the management of such risks. In the case of the PPP for the expansion of KIA (BOOT as defined in section 6 of this document) the following are the key risks under the political and regulatory category.

7.1.1 Political risk.

These are the risks related to events of expropriation, political violence, currency convertibility and transfer. Currently Russia is rated BBB + and Tatarstan is rated BBB- (stable) by Fitch and BB-(positive) by S&P. Political risk perceptions by international investors today at federal and local level appear to be relatively modest in the air transport sector. Perceptions in other sectors, where recent changes in public sector policies have occurred are much higher (e.g., oil and gas and energy sector). At present we do not consider that these types of risks will have a major impact in the financing of the project.

7.1.2 Regulatory (contractual risk).

These are the risks related to the Government actions leading to a default of its contractual obligations in the 25-year MAC/BOOT (both at the federal and local level). Under this category the more relevant risks in the case of new-expanded passenger terminal at KIA are:

**Tariff regulation (terminal end user fees and new departure fees):** Tariffs are regulated by the Federal Tariff Service (FTS, a federal body of the executive power within the jurisdiction of the Government of the Russian Federation). In the case of airport related fees the FTS regulation operates on a case by case basis. FTS receives from the decentralized Airport Company a specific request for tariff revision. Consultations at FTS could take several months until a decision is reached. The PPP private partner will be subject to both the KIA (who will de-facto act as MCA regulator and supervisor on behalf of the Government Tatarstan), and the FTS regulatory risks. Given the importance of these cash flows (terminal end user fees) in the annual revenues of the BOOT concession, this is likely to be an important risk from the investors/lenders prospective. If additional fees are to be implemented to fund development of airside facilities under the O&M scheme, tariff regulation risks will be greater. Mitigating this risk will be very important in the structuring of the financing package for the Master Concession Agreement. Approaches to mitigate these type of risks include among others: (i) well structured economic regulation clauses in the concession contract with compensation to the master concessionaire if well founded tariff adjustments are delayed beyond a certain target (e.g., beyond 6 months), (ii) economic equilibrium clauses (i.e., a clause providing compensation to the concessionaire when economic equilibrium is lost due to tariff adjustments), (iii) partial risk guarantees provided by International Financial Institutions (IFIs).
Early termination payment (and any other material breach of contract)\textsuperscript{14} This is the risk that under a termination event (attributable to the concessionaire or to the local / federal government), the Grantor (City of Kazan) would have difficulties (financially or legally) to honor the early termination payment commitment. This is always an important risk from lenders’ prospective. In this case, most of the risk is directly linked to the Government payment capacity currently rated at BBB-.

Airside investments by the Government of the City of Kazan: Development of the airside facilities, under the O&M scheme, will be dependent on coordination with the City and Federal Government with respect to their contributions (grant) to capital expenditures. Risk alleviation should depend on a schedule of contributions well defined and guaranteed. In addition to the financial implications of a possible lack of coordination on investment commitments, traffic volumes could also be affected. Decrease in traffic volume growth would affect cash flows and debt service capacities. This risk is directly linked to the City Government credit rating and the federal government regulatory risk (e.g., design and permit approval). Mitigation approaches to this risk include among others compensation clauses or term extensions.

Changes in air traffic legislation (regulation and air service agreements) affecting passenger movements at KIA. Traffic rights between Russian Federation and the rest of the world are under the responsibility of the Ministry of Transport (in consultation with Foreign Affairs and Defense). Aviation policies with respect to air service agreements are negotiated at the federal level. New policies could affect routes capacities and fares with direct implications in KIA traffic estimates. This is a usual risk in airport infrastructure PPPs. It is normally mitigated via an economic equilibrium clause.

7.1.3 Legal risks

These are the risks related to the federal and local legal system capacities to enforce the law and its procedures on a fair and timely basis to both parties in a contract or legal arrangements. These types of risks are still perceived by international investors to be important in the current context of the Russian Federation. As the BOOT for the new terminal construction advances, the team of advisors will develop the adequate mitigation approaches to deal with this risk.

7.2 Project Specific Risks

These are the types of project related risks typically under the influence or domain of the project sponsors (i.e., private party to the PPP transaction – MCA). There are still some residual risks under the project specific category where government actions could affect the outcome (e.g., long lead approval times for design and construction permits could lengthen construction period increasing upfront financing costs to the project).

(d) Completion risk

These are the risks related to the construction of the infrastructure asset in the expected time and under the original cost estimates. Delays in construction and cost overruns could seriously impact internal rate of return of the project and its debt repayment capacities. This is normally a risk managed by the concessionaire (private sector). It is usually mitigated via the execution of an EPC Contract (engineering, procurement and construction) between the concessionaire and an independent construction company.

\textsuperscript{14} Material breach of contract is represented by default on government obligations with major impact on project cash flows affecting debt repayment capacity of the project
(e) Performance risk

Risk related to the technical and operational know-how of the concessionaire in the MCA. These risks include among others: ability to handle passengers and luggage, to promote commercial development, to partner with airlines, etc. A process of pre-qualifying bidders based on their experience of managing such facilities will help mitigate this risk.

(f) Traffic Risks

Risks related to the airlines and passenger traffic flows into KIA. As previously mentioned a portion of this risk is related to the abilities of the concessionaire to effectively operate the airport plus the standard market risks the private sector takes in business ventures. However, there is a residual traffic risk related to government actions in the regulatory framework governing air transport operations at KIA. Advisors to the City Government in this transaction should address the mitigation of this risk during the due diligence phase.

(g) Environmental and Social Risks

Risks related to the impact of actions by the parties in the concession contract (City Government and concessionaire) to the environment surrounding KIA. Usually these risks are divided into: (i) past environmental liabilities, which are usually the responsibility of the previous operator (usually the grantor of the concession – City/Government) and (ii) future environmental impact which is usually included in the project cost estimations (i.e., noise mitigation, fuel farm adequacy, etc.) and is under the responsibility of the concessionaire. Airport terminal infrastructure is usually relatively low on environmental costs (both past and future) when compared with other transport infrastructure (i.e., toll roads, subways, bridges, etc.) which could involve relocation, harm to endangered species, etc. Normally these types of risks are mitigated by conducting a sound and adequate environmental and social impact assessment (ESIA), and in the case of KIA it is recommended that this be undertaken in conjunction with the Master Plan updating.

The overall objectives of the ESIA for KIA would include:

- To make available for the tender process a feasibility-study-level EISA and the corresponding comments, officially filed requirements and approvals of environmental authorities on federal and state/city level. These will be crucial information for any bidder in assessing potential risks and liabilities associated with environmental and social issues.

- To conduct early consultations with affected stakeholders, especially the local residential population affected by present and future airport operation. This can be another key constraining factor for design, construction and operation. A major information and consultation campaign for the public needs to be completed and diligently documented before the tender is issued. Only a thorough consultation process in which all sensitive issues and potential friction are at least in principle resolved, gives a sufficient level of certainty for the concessions design and planning process.

- To initiate and lay out a process for a continued dialogue with environmental authorities and obtain their in principle endorsement of the general environmental approach, which will hedge regulatory risks for potential bidders, increase level of investor confidence and ultimately the chance for a higher number of interested investors.

- To mitigate the risk of undue delays during project implementation, e.g. by environmental authorities protracting or withholding approvals, or due to protests and lawsuits of affected stakeholders not sufficiently informed, consulted and/or compensated in the pre-tender phase.
The ESIA will also, as important preparatory step, clarify the legal and administrative framework of the project and establish relationships and dialogues with the relevant authorities.

It is recommended that the ESIA subdivide the airport into the following zones, which should be defined and delineated during an initial scoping phase of the study:

(i) core facilities, i.e. airport facilities within the airport’s cadastral boundaries/right of way (ROW), including runways, taxiways, aprons, cleared areas, ground handling and terminal buildings, other structures (tower, fire brigade, maintenance, storage) and infrastructure (fuel storage, distribution and disposal; heating/cooling facilities; deicing pad, equipment disposal and recycling; power supply; service roads; wastewater/storm water collection; drainage and treatment; solid waste management, removal and treatment, access and service roads; parking space for employees / passengers, bus or rail terminals);

(ii) areas where significant impacts are anticipated, such as approach and departing paths for landing and take off (LTO) impacted by noise and emissions from approaching and departing aircraft, or areas impacted by emissions from the core facilities (noise, exhaust gases, vapors from fuelling activities and fuel storage).

(iii) Linked development and infrastructure such as existing and planned access roads, rail links, parking facilities, and commercial zones.
8 FINANCING STRUCTURES AND OPTIONS

The Government of Tatarstan (GOT) realizes that in order to develop and operate a modern and full scale sub-regional hub airport in Kazan they will need to partner in the longer term with a consortium of firms that could bring expertise in: (i) airport construction, (ii) airport operation, (iii) airport route expansion and bilateral negotiations, and (iv) airport retail (commercial) operations in addition to building and financing the infrastructure. We understand that the government’s goal is to improve efficiency of airport services and infrastructure and improve total investment in the infrastructure through privately financed investments.

At this preliminary stage of project development (pre-feasibility) we have developed a basic financial model capable of analyzing the feasibility of a number of financing structures. This model is enclosed with this Report. Annex 2 provides an overview of the key assumptions and controls used in the model. We have focused in particular on two principle financing structures: public financing and PPP (non-recourse) financing.

8.1 Availability of public financing

Funding for the maintenance and development of landside facilities comes out of the budget of the Republic of Tatarstan. However, the planned capital expenditures necessary to reconstruct the airside infrastructure will be funded out of the budget of the Russian Federation (the airside infrastructure is federally owned and will not be transferred to the private sector). Tatarstan receives annually funding, though subsidies, for air infrastructure from the Federation.

Tatarstan has applied for infrastructure funding from the Russian Federation, and we understand that KIA qualifies to receive a grant from the Federal Government to modernize the airside infrastructure. The timing of this grant is not yet fixed but is currently forecast for 2010-2011 and may amount to $120-130 MM USD (to be confirmed) in 2008 money according to the preliminary studies. The funds are to be utilized to refurbish the taxiway, runway and aprons in Kazan airport.

The Republic’s Government officials view the refurbishment of the airside and expansion of Terminal 1 of KIA as the first step in development of the airport. It is clear that the phasing of a terminal expansion would need to be looked at in close relationship with the phasing of the runway, taxiway and aprons refurbishment, from an operational and financial perspective, and also from the perspective of its impact on possible Private Sector Participation.

8.2 Analyzing financing options

The World Bank has developed a basic financial model for current and projected KIA operations for the purposes of assessing the feasibility of PSP options. At this pre-feasibility stage, the model projections are based on a number of basic assumptions for possible revenue and cost growth which would need to be tested and confirmed through the subsequent development of a comprehensive Master Plan and associated traffic study by KIA. Scenarios were run under purely public, purely private and a hybrid PPP financing. The following summarizes the results of our scenario analysis and also indicates the size of public funding contribution likely to be required to make investment feasible from a PPP structure perspective.

Key assumptions: The working assumption (base case) in the financial model is that the investments for landside and airside are phased (as discussed previously). The landside project would be undertaken in 2010-2013 with a total estimated cost of Rubles 4,500 million, while the airside refurbishment valued at Rubles 2,750 million would occur later, in 2017-2018 when additional landing/take-off capacity would be required. This phasing is proposed since additional runway capacity in not likely to be required until this later time, whereas there are more pressing
needs for upgrading the landside infrastructure. It is further assumed that the proposed grant from the Federal Government would cover 100% of the total cost of the airside investment. It is important to note, however, that the timing of the airside investment can be changed in the model without impacting any outputs of the financial model since this is assumed to be grant funded. It is recognised that bringing forward the airside investment in line with the landside investment could be necessary to mitigate political risk for private investors (and is consistent with the GOT’s current application for Federal grant funding). For the landside project, the financing structure is more flexible. The model was tested for various combinations of public and private financing, the results of which are presented below.

Public financing:
If the project is fully financed with public money (ie grant funded from public sources), the total required contribution would be Rubles 3,740 million (USD 160 million), which would cover the full cost of the landside investment in 2010-2013 (Rubles 760 million of total landside investment would be funded from operating cash flows). In this scenario, without debt service or dividend requirements, the airport would generate sufficient cash flows to fully cover the airside investment in 2017-2019, without additional government contribution. This option can be recommended if the City wishes to remain in full control of the airport and has the resources to finance the project.

Private financing:
KIA cash flows cannot sustain 100% private financing (sourced through a combination of debt and equity). No combination of debt and equity would satisfy the financial requirements of both investors and lenders. In the extreme case, with 100% equity financing, the project would generate a 28.4% return on equity, assuming the government still subsidizes the full cost of airside investment. If equity investors provided 100% of landside and airside financing (without a government grant), the equity return falls to 21.2%. However, it is highly unlikely that equity investors would be willing to participate without a significant level of debt financing.

Public Private Partnership (PPP) (base case scenarios):
The project may be financed by a combination of private financing (debt and equity) and a public grant. We have run a number of PPP financing scenarios on the financial model and have focused on two to provide a likely range of required government financial support for developing KIA on a PPP basis.

(i) 50% Debt and 50% Equity Financing
This is a relatively conservative PPP financing scenario, reflecting the case where lenders were uncomfortable with the projects risk profile and would seek to pass more risk onto the investors. Under this scenario the minimum level of public sector contribution (grant) required would need to be in the region of 30% (Rubles 1,350 million or USD 57 million) of the total capex required for the landside investment (value Rubles 4,500 million or USD 190 million). With this level of public sector contribution, the equity return is 22.3%, with an average Debt Service Coverage Ratio (DSCR) of 3.63. Of the remaining financing needed for landside capex, 17% (Rubles 750 million or USD 32 million) will come from operating cash flows and 53% (Rubles 2,400 million or USD 102 million) will come from debt and equity (50%/50%). In this PPP scenario, it is assumed that the airside investment in 2017-2019 is 100% financed by government grant (total value 2,750 million or $116MM).
### Table 8.1: Landside Financing (50/50 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating CF</td>
<td>17%</td>
<td>750</td>
</tr>
<tr>
<td>Capital grant</td>
<td>30%</td>
<td>1,350</td>
</tr>
<tr>
<td>Debt</td>
<td>26.5%</td>
<td>1,200</td>
</tr>
<tr>
<td>Equity</td>
<td>26.5%</td>
<td>1,200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4,500</strong></td>
</tr>
</tbody>
</table>

### Table 8.2: Airside Financing (50/50 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating CF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capital grant</td>
<td>100%</td>
<td>2,750</td>
</tr>
<tr>
<td>Debt</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>2,750</strong></td>
</tr>
</tbody>
</table>

### Table 8.3: Total Financing (50/50 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating CF</td>
<td>10%</td>
<td>750</td>
</tr>
<tr>
<td>Capital grant</td>
<td>57%</td>
<td>4,100</td>
</tr>
<tr>
<td>Debt</td>
<td>16.5%</td>
<td>1,200</td>
</tr>
<tr>
<td>Equity</td>
<td>16.5%</td>
<td>1,200</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>7,250</td>
</tr>
</tbody>
</table>

Table 8.4: Base Case (50/50 scenario)

<table>
<thead>
<tr>
<th>Minimum DSCR</th>
<th>1.36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average DSCR</td>
<td>3.63</td>
</tr>
<tr>
<td>Equity IRR</td>
<td>22.3%</td>
</tr>
<tr>
<td>D/E ratio</td>
<td>50/50</td>
</tr>
</tbody>
</table>

Table 8.5: Debt Service Coverage Ratio for Select Years (50/50 scenario)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCR</td>
<td>1.40</td>
<td>1.36</td>
<td>1.97</td>
<td>2.72</td>
<td>4.46</td>
<td>6.42</td>
<td>3.63</td>
</tr>
</tbody>
</table>

Figure 8.1
Figure 8.1 above shows the earnings (or net income) generated by the airport before investment and financing requirements for the 50/50 scenario.

**Figure 8.2**

Figure 8.2 demonstrates the growth of net cash flows after operating, investment and financing activities for the 50/50 scenario.

(ii) 70% Debt and 30% Equity Financing

This is a more aggressive PPP financing scenario, reflecting the case where lenders were more comfortable with the projects risk profile and would seek to pass less risk onto the investors. This structure is more typical of well designed infrastructure PPP transactions in medium risk
countries. Under this scenario the minimum level of public sector contribution (grant) required would need to be in the region of 45% (Rubles 2,020 million or USD 85 million) of the total capex required for the landside investment (value Rubles 4,500 million or USD 190 million). With this level of public sector contribution, the equity return is 32.0%, with an average Debt Service Coverage Ratio (DSCR) of 3.61. Of the remaining financing needed for landside capex, 17% (Rubles 750 million or USD 32 million) will come from operating cash flows and 38% (Rubles 1,720 million or USD 73 million) will come from debt and equity (70%/30%). In this PPP scenario, it is assumed that the airside investment in 2017-2019 is 100% financed by government grant (total value 2,750 million or $116MM).

Table 8.4: Landside Financing (70/30 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating CF</td>
<td>17%</td>
<td>760</td>
</tr>
<tr>
<td>Capital grant</td>
<td>45%</td>
<td>2,020</td>
</tr>
<tr>
<td>Debt</td>
<td>26.5%</td>
<td>1,200</td>
</tr>
<tr>
<td>Equity</td>
<td>11.5%</td>
<td>520</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>4,500</td>
</tr>
</tbody>
</table>

Table 8.5: Airside Financing (70/30 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating CF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capital grant</td>
<td>100%</td>
<td>2,750</td>
</tr>
<tr>
<td>Debt</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equity</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>2,750</td>
</tr>
</tbody>
</table>

Table 8.8: Total Financing (70/30 scenario)

<table>
<thead>
<tr>
<th>Source</th>
<th>Share</th>
<th>Amount (Rbl m)</th>
</tr>
</thead>
</table>
Operating CF 10.5%  760
Capital grant 66%  4,770
Debt 16.5%  1,200
Equity 7%  520
Total  7,250

Table 8.9: Base Case (70/30 scenario)

| Minimum DSCR | 1.35 |
| Average DSCR | 3.61 |
| Equity IRR | 32% |
| D/E ratio | 70/30 |

Table 8.10: Debt Service Coverage Ratio for Select Years (70/30 scenario)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCR</td>
<td>1.39</td>
<td>1.35</td>
<td>1.96</td>
<td>2.71</td>
<td>4.43</td>
<td>6.38</td>
<td>3.61</td>
</tr>
</tbody>
</table>
Figure 8.3 above shows the earnings (or net income) generated by the airport before investment and financing requirements for the 70/30 scenario.

Figure 8.4 demonstrates the growth of net cash flows after operating, investment and financing activities for the 70/30 scenario.
9 INSTITUTIONAL REQUIREMENTS

9.1 PPP Team for KIA Transaction

Given the highly complex and demanding nature of PPP transactions, it is recommended that the government consider the establishment of a form of organizational entity for the development and management of the KIA PPP transaction.

The Bank has been advising on other infrastructure PPP transactions in Russia. In Saint Petersburg the City has established a number of project specific joint stock companies to manage the development and bidding out of these transactions, including Pulkovo Airport. It is recommended that the government establish a dedicated KIA (PPP) transaction team with the necessary experience and skills. This team/unit could be established in the Ministry of Transport and Roads.

This team will need to have the following core technical skill set:

- Commercial/technical project management
- Project/commercial finance, including familiarity with financial modeling
- Legal/project contract drafting and management
- Good spoken and written English language capability
- Good communication skills (public, commercial, international environments)

The team will also need dedicated modern office accommodation with international phone lines, printers and copiers, fax machines, broadband access, meeting rooms etc.

This team will be responsible for managing all the activities outlined in Section 10 of the report, managing the whole of the PPP project life cycle from inception and feasibility analysis to contract negotiation and management. Managing the (international) advisors in developing a project structure that is attractive to international investors/operators as well as meeting local/national political and social objectives will be an important and challenging role.

In addition, the team will need to build a website. This will be invaluable for marketing the project, as well as for publishing all legal documents such as relevant laws and regulations, bidding documents, answers to bidder queries, decision announcements etc.

In the longer term, if the government develops a policy of using PPPs for infrastructure development and management, and looks to develop a pipeline of PPP projects (eg toll roads, urban light rail/tram, independent power generation, water supply concessions), it should consider setting up a PPP management unit. This is a major undertaking by any government and should be undertaken in the context of national/sector and fiscal management policy.

In order to assess the feasibility of setting up such a unit, the government would need to undertake a number of preparatory tasks, including:

- Design of the Fiscal Risk Management Framework
- Analysis of Tatarstan’s needs in establishing a PPP Management Unit
- Analysis of possible organizational and legal forms for establishing a PPP Management Unit in Tatarstan
- Development of methodologies that will be used by the PPP Management Unit.
The location, role and responsibilities of such a PPP Unit would need to be the subject of a further study involving wide stakeholder consultations (e.g., line ministries, finance and treasury ministries and other coordinating ministries). This study would also need to develop an appropriate training program to develop local staff capable of developing and managing PPP transactions.

### 9.2 Airport Management Team

In parallel with establishing the KIA PPP development team, it is recommended that the GOT set up a special purpose unit that will be responsible for the management, operation and development of KIA. Depending on the PPP model selected for KIA engagement with the private sector, the unit would take one of the three following forms:

- The unit will manage the airport through the process of transformation, and will take a steering role until the private sector takes over,
- The unit will remain as the airport manager, in the case that the PSP is not pursued,
- The unit will manage the airport, steer the process of transformation, and remain together with the private sector under a formula of joint management.

In line with modern airport management practice, the following organizational structure is proposed for KIA:

![Organizational Structure Diagram](image_url)

The roles and responsibilities of these key staff are summarized below:

**Chief Executive Officer (CEO):** The CEO will be responsible for leading the entire organization. The CEO will need to have significant senior management experience, working with boards of directors on executing strategy and developing business plans. The CEO will have strategy implementation skills and experience in conflict and crisis management. In addition, the CEO will need proven experience in managing major private sector infrastructure projects or utility businesses, ideally in an airport or transportation environment.
Chief Financial Officer (CFO): The CFO will be responsible for financial planning and development of financial strategies to support growth. The CFO should have extensive experience in the financial management of major private sector infrastructure projects or utilities and be capable of working closely with financial institutions. The CFO will need to manage the introduction of modern management and accounting information systems and modern, international standard financial reporting policies and procedures. The CFO will need proven experience in designing and implementing performance measurement programs and negotiating tariffs in a regulated environment. CFO will lead the Finance Department, consisting of Accounting, Purchasing and Budgeting & Planning. In addition, the Finance & Administration Department will include Information Technology and the Administration Departments.

Commercial Director: will be responsible for the promotion and development activities of the airport. This will include the responsibility for route development, commercial development of KIA’s facilities and assets, concessions, airline relations, passenger services and marketing.

Chief Operating Officer (COO): will manage the Operations Department, responsible for three major areas: Airside Operations, Landside Operations and Cargo Operations. The COO will coordinate with the Safety & Security Manager and the Chief Engineer over all operational aspects of their activities. The COO will need substantial aviation operational experience, as well as the ability to develop strategies for the growth and development of the airport and its operating organization.

Public Affairs Director: will be responsible for publicity, media relations and customer and community relations. This department will work closely with the Commercial Department, coordinating activities aimed at the promotion of the airport with the aim of boosting commercial activity.

The senior management team will be supported by four senior managers, heading four departments:

Human Resources Manager: responsible for recruitment, development and training of staff, this manager will support the development of the entire organization.

Safety & Security Manager: will manage the department responsible for overseeing all safety and security functions at the airport, including ICAO norms and recommendations (in particular, Annexes 14 and 17 to the Chicago Convention of 1944). The Safety & Security department will also provide support to all the other areas of the organization, with specific emphasis on the Operations and Engineering activities.

Chief Engineer: will lead the Engineering Department, and be responsible for the maintenance and operational support activities relating to airport assets, utilities and infrastructure.

Head of Planning and Development: will be responsible for the design, coordination and execution of development plans approved by the Board. Will work in close cooperation with the Operations, Safety and Security and Engineering Departments.

A number of this airport management team are likely to be international recruits who will bring significant international experience with them. The team will be responsible assessing the capabilities and training requirements of KIA staff. Much training and development of
management and technical staff in the airport industry is undertaken through short-term ‘on-the-job’ training programmes using secondments or placements with leading international airports. Alternatively some major international airports may be able to offer fee based technical assistance programmes to help local staff introduce modern management practices and technologies.

10 BIDDING PROCESS – PROJECT PREPARATION GUIDANCE

Given the fact that the Master Plan (including an environmental and social impact study) still needs updating, that an international standard traffic study is required, and that technical design feasibility study will need to be developed, it is envisioned that the complete bidding process including the preparatory work and the implementation of the transaction could take at least 2-3 years.

10.1 Preparatory work

Technical Design

KIA should move to commission the update (expanded) of the 2003/4 Master Plan. Institute for the Kazan Aviation Industry (Kazan Gipronniaviaprom Ltd, KGL) could be used for this purpose, although support from an international specialist airport consultancy could prove valuable for the development of a PPP project. We have prepared a draft Terms of Reference for the appointment of Technical Advisors (Annex 3) and of an Air Transportation Specialist (Annex 4). These Terms of Reference will need to be edited by the government to conform to the details of the project to be bid out. This work needs to be completed as part of the feasibility phase and will provide preliminary design and technical plan as well as the detailed cost estimates. The Master Plan will include the key recommendations regarding the capacity requirements for the period 2009-2020. (i.e. airside infrastructure, landside infrastructure and cargo operations), as well as preliminary technical design for the passenger terminal (will be later used for selection for architectural design). Based on the minimum specifications, the city can open an international architectural contest for the design of the new terminal. The awarded architectural firm will be responsible for the complete technical design of the facilities, with final design specifications for the construction. Based on those specifications, a projection of the financial resources required will be presented.

The technical design should leave no room for subjective interpretation by the bidder about the technical design and the maximum construction time framework. Leaving limited flexibility to bidders to offer modifications or deviations to the technical design and construction work schedule, will assure an impartial assessment of the proposals in terms of qualification and financial cost.

Financial Review

A financial review will have to be carried out by a financial advisor with significant experience in PPP/airport transactions. A draft Terms of Reference for the appointment of (international) financial advisors is attached in Annex 5. These Terms of Reference will, however, need to be amended to reflect the structure of the project to be bid out. The financial review will involve the complete business modeling of the project, including all required capital expenditures, and the assessment of the required funds to be generated either internally or through the provision of external financing sources.

The business modeling will involve the review of all revenues to be collected by the SPC (commercial aeronautical related and purely commercial non-aeronautical) and all operating costs.
related to the activities under the responsibility of the company. The review will then include the funds related to investing activities.

The attractiveness of additional commercial developments such as the operation of hotels, conference center, office space and shopping malls will be included as part of the analysis. In addition, the operation of cargo terminals will also be evaluated at this stage, although it will require a legal opinion with respect to the feasibility and the risks involved. The financial review will study the feasibility of the different options for transaction, as well as for regulatory definitions such as tariff setting, market access to service providers, mechanisms to securitize future flows, etc.

**Legal & Institutional Review**

An international law firm with local representation in Russia will have to be retained as a legal advisor to the KIA in order to conduct the following:

- Comprehensive airport due diligence
- Required institutional arrangements
- Legal aspects of the transaction design including drafting of the transaction documentation (i.e., MCA, prequalification criteria, bidding documents, and award procedures).
- Legal aspects of the proposed financing structure
- Legal assistance in the closing and negotiations of the international bidding.

We attach a draft Terms of Reference for the appointment of (international) legal advisors (see Annex 6), but this will need to be customised in line with the transaction structure selected to bid out.

**Environmental and Social Impact**

An environmental and social impact study related to the expansion program will have to be carried out, in line with the international accepted norms. We attach a draft Terms of Reference for the appointment of a consultant to undertake such a study (see Annex 7). However, the scope of such a study will be dependent on the results of the updated Master Plan and feasibility engineering design for the airport expansion. Annex 8 contains the IFC Environmental, Health and Safety Guidelines for Airport Construction and Operation.

**10.2 Transaction Design**

The financial advisor, in tandem with the advice provided by the legal advisor, will provide the design of the transaction and the implementation road map. The design will involve the structuring of the different organizations and companies to be created, their inter-relation, and the necessary changes to be carried out within the institutional arrangement.

**10.3 Implementation**

**Information Memorandum**

The financial advisor will be responsible for the preparation of an Information Memorandum that should include: business overview, traffic analysis and market outlook, the institutional and regulatory arrangement, legal issues, aeronautical and non aeronautical (commercial) activities, management and labor issues, financial information, etc.
The information memorandum will contain the final outcome of the Technical Design, of the Financial Review, the Legal Review and the Environmental Analysis.

Data Room

All relevant information to bidders will have to be organized in a physical room, and visitation to that room by bidders will have to be coordinated. Access will be restricted to bidders.

The information in the data room will be supporting and complimentary information to the one presented in the Information Memorandum.

The financial advisor will be responsible for the coordination of the data room and for Assembling the inputs from the Technical, Financial, Legal and Environmental advisories. The organization of the Data Room and the Information Memorandum at an early stage is critical for the preparation of the promotion of the project.

Promotion

The financial advisor will be responsible for the publicity of the process and the request for expressions of interest from the potential bidders. A teaser will be prepared, followed by a targeted road-show at specific locations around the world where potential bidders can assist and get informed about the transaction details.

The road-show process provides a realistic feedback of the private sector interest and concerns, allowing for an iterative process of correction and adaptation to a formula that best suits both sides of the transaction. The promotion process will conclude with the reception of the Expressions of Interest of the potential bidders.

Pre-qualification process

The financial and the legal advisors, together with the airport management, will develop the pre-qualification criteria and will evaluate the bidders that are eligible to present a technical and financial proposal.

Development of bidding documents and criteria

The legal advisor, with the input of the airport management and the financial advisor will prepare the complete set of bidding documents.

The financial and the legal teams will develop the bidding criteria for the technical and financial evaluation of proposals.

Request for Proposals and Preparation of Bidders

The request for proposals will be duly advertised using international media resources. Sufficient time should be given to the bidders to conduct their own evaluations of the business proposal and the transaction, involving the necessary technical, financial and legal due diligence.

At this stage, structured meetings with bidders will be carried out for clarification and feedback purposes. The data room and the relevant airport facilities should be available at this point in time, for visitation and consultation in coordination with the airport management.

Technical Evaluation

Once proposals are received, the technical proposal will be opened first and evaluated whether it complies with the requested conditions, and on what degree.

The technical proposal will be judged by an evaluation team, probably formed from the financial and legal advisors, with participation of operational personnel.
Financial Evaluation

After the Technical Evaluation is completed and the results published, the financial proposal is opened. Both the financial and the technical proposals will be evaluated jointly, according to the defined criteria.

A preferred bidder will be selected from both evaluation processes, whom will be invited to the negotiation stage.

Negotiation

At this stage, the preferred candidate will be invited to improve his offering, as well as the second and the third scored proposals.

Award

After the negotiation is finished the absolute preferred bidder will be selected. The award decision will then be published.

Financing

In parallel to the bidding process, once the transaction design has been completed, a process of engaging International Financing Institutions (IFIs) may follow. Institutions aimed at providing financial backing to private sector initiatives will be considered, such as the International Finance Corporation (IFC), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), etc.

Based on similar PPP transaction in the airport infrastructure sector cost estimates for the required technical assistance program for the MCA would be in the region of US$ 5 million.

The Grantor (Tatarstan Government) will manage the selection process for the private sector party to the proposed public private partnership transaction. The concession will consist of a 20+ year Master Concession Agreement comprised of a BOOT for the construction, maintenance and operation of the new terminal passenger facility and related infrastructure (landside), and an O&M contract for the operation and maintenance of the runway, taxiway and apron system (airside). The selection process will be implemented via an international public bidding to select an experienced airport operator in consortium with qualified investors to assume responsibilities for the construction and financing of the new infrastructure. This process will be similar to the one being conducted in St Petersburg on a number of PPP transactions, including Pulkovo Airport, where the Bank has been providing advice to the City.

The technical assistance program will be structured as follows:

Financial Advisor. Responsible for the financial review, project finance structuring and marketing, and representation of the transaction to local and foreign investors. Preliminary draft terms of reference are attached in Annex 5.

Legal advisor. Responsible for legal design of the MCA (BOOT + O&M) transaction and drafting of supporting contracts and agreements as well as all documentation related to the international bidding process. Preliminary draft terms of reference are attached in Annex 6.

Technical Advisor. Responsible for ensuring the technical design and associated performance specification is of a quality suitable for international tendering. Preliminary draft terms of reference are attached in Annex 3.

Air Traffic Consultant. Estimates used in the Master Plan are indicative and useful for preliminary PPP transaction design. For purposes of the international bidding process KIA would
need to retain the services of an air traffic consultant to develop a traffic simulation study for the operations of the KIA including both passengers and cargo. Preliminary draft terms of reference are attached in Annex 4.

In addition, there will be a need to employ **tax and insurance advisors** to provide specialist input in these areas. Important tax issues will include project specific application of VAT and the possible introduction of tax incentives to attract investors (eg relief on import duties, tax holidays). The insurance advisor will be required to review/draft insurance related clauses and annexes in the project documents.

Based on current estimates for similar transactions in airport infrastructure it is estimated that the Technical Assistance Program to complete award of the MCA could be **executed in 24 months**. This timing however, would be dependent on KIA/GOT having comprehensively updated the Master Plan. Tentative costs estimates for the proposed technical assistance program based on similar PPP transactions in the air transport sector are in the region of **US$ 5 million**.
ANNEX 1

KIA COMPETITIVE BENCHARKING STUDY

1. Executive Summary

The benchmarking study compares regulated charges in Kazan International Airport (KZN) against a set of 10 relevant airports in the region, shown in the table below (Exhibit 1).

**Exhibit 1: Airport sample**

<table>
<thead>
<tr>
<th>country</th>
<th>Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Azerbaijan</td>
<td>Baku - Heydar Aliyev International</td>
</tr>
<tr>
<td>2 Georgia</td>
<td>Tbilisi International</td>
</tr>
<tr>
<td>3 Russian Federation</td>
<td>Kazan International</td>
</tr>
<tr>
<td></td>
<td>Moscow – Domodedovo</td>
</tr>
<tr>
<td></td>
<td>Moscow – Vnukovo</td>
</tr>
<tr>
<td></td>
<td>Novgorod</td>
</tr>
<tr>
<td></td>
<td>Perm - Bolshoye Savino</td>
</tr>
<tr>
<td></td>
<td>Samara - Kurumoch International</td>
</tr>
<tr>
<td></td>
<td>St. Petersburg – Pulkovo</td>
</tr>
<tr>
<td>4 Ukraine</td>
<td>Kharkiv International</td>
</tr>
</tbody>
</table>

Source: prepared by the consultant

The analysis covers the following charges:

- landing charge and lighting surcharge
- aircraft parking
- passenger charges (including the passenger facility charge and other charges)
- security
- navaid

The information was obtained from the International Air Transport Association’s (IATA) Airport & Air Navigation Charges Manual, February 2008 revision. Said manual contains charges information for more than 300 airports worldwide, including those contained in this report.
As a first approach, every charge was compared independently from the others for all the airports. Time-based charges, such as parking, were compared for two different periods (2 and 4 hours), while aircraft based charges were evaluated using three different aircraft types that are expected to be present at KZN on the following years such as the Embraer 170, Airbus A320 and Boeing 787-8. Specific aircraft parameters are shown in the following table (Exhibit 2).

### Exhibit 2: Aircraft parameters

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Type</th>
<th>Maximum take-off weight (tons)</th>
<th>Seats</th>
<th>Assumed load factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embraer 170</td>
<td>regional jet</td>
<td>35.9</td>
<td>70</td>
<td>60%</td>
</tr>
<tr>
<td>Airbus A320</td>
<td>narrow-body</td>
<td>77.0</td>
<td>16</td>
<td>60%</td>
</tr>
<tr>
<td>Boeing 787-8</td>
<td>wide-body</td>
<td>219.5</td>
<td>235</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: prepared by the consultant

The second approach added all the charges to determine the cost of a turnaround (turnaround refers to all activities that take place on the ground between flights, such as passenger and baggage loading/unloading, aircraft servicing, etc.).

All values are shown in US dollars.

### 2. Landing charge and lighting surcharge

All of the airports in the sample charge a unit rate per ton of Maximum Take-Off Weight (MTOW), ranging from USD 6.3 to USD 14.0; the rates are fixed and independent of the aircraft weight. Landing fees are entirely variable, meaning that there are no fixed charges, although one airport –St. Petersburg- entails a minimum fee that is charged when the aircraft MTOW by the unit rate is below that threshold.

Lighting surcharges (or night surcharges) are applied at 7 out of 11 airports, and increase landing fees by 20%. Some airports apply the increase twice, once for each movement, resulting in a 40% surcharge for night turnarounds.

Given that at least one airport in the sample features a minimum charge, and to ensure an apples-to-apples comparison, landing fees were compared as the cost of landing a typical narrow-body aircraft (Airbus A320) at each airport. Only one aircraft was used since the relation between the airports remains constant for different types.

The following graphs display the landing fees for an Airbus A320 on daylight hours (Exhibit 3) and on night hours (Exhibit 4).

---

15 An aircraft movement consists of a landing or take-off.
At USD 903, KZN landing fees are the fourth most expensive in the sample and the third most expensive in the Russian Federation for day operations.

**Exhibit 4: Airbus A320 landing charge (night operation)**

For night operations however, landing fees in KZN become cheaper than most of the other airports. This is explained not only because there are no night surcharges in Kazan, but also because many of the airports that apply surcharges base them on aircraft movements instead of just landings, resulting in 40% increases over daylight operations.

3. **Parking charge**
The parking fees scheme is almost identical at every airport: there is a three hour grace period, after which a percentage of the underlying landing fees is charged for a certain period of time thereafter, which varies from 1 to 24 hours.

Tbilisi in Georgia and Kharkiv in Ukraine also feature the three hour grace period, but charges for time thereafter is based on a unit rate per ton of MTOW instead of as a percentage of landing fees.

The following graph (Exhibit 5) compares landing charges for a 2 and 4 hour period for an Airbus A320. Zero values indicate that the period is below the free time allowance, hence no charges are made.

Exhibit 5: Airbus A320 parking charge

None of the airports charges for 2-hour parking. 4-hour parking for an Airbus A320 cost from USD 12 at Kharkiv to USD 150 in Yekaterinburg. KZN ranks among the cheapest airports at USD 45\textsuperscript{16}.

4. Passenger charges

All items that are charged based on the number of passengers are referred to as passenger charges, and include things such as the passenger facility charge (or boarding fee), security fees and other special fees and taxes. Even though some of these charges might be paid by the airline, they are always passed on to the passenger and added to the fare.

Some of the passenger charges are imposed by a federal or local government (such as tourism taxes for example) and the airport does not collect nor receive that money. In most cases these charges are collected by the airlines and passed directly to the appropriate recipient.

The Passenger Facility Charge (PFC) is normally based on the number of enplaned passengers, although some of the airports in the sample charge the PFC on departing and arriving passengers.

\textsuperscript{16} The three-hour grace period in KZN could not be confirmed. It was assumed that it actually exists since every other airport in the Russian Federation features it.
In order to make the values comparable, the rate was doubled in those airports where it is charged on inbound and outbound passengers.

The difficulty in comparing passenger charges lies in the fact that while the IATA Airport Charges Manual details every fee/tax levied on passengers, it does not clarify whether or not they are collected and kept by the airport. With that in mind, two different evaluations were carried out: the first one (Exhibit 6) includes only the passenger facility charge, while the second one (Exhibit 7) contains all charges and taxes levied on the passengers.

Note: security charges are included in the next section because at some airports it is based on the aircraft MTOW rather than the number of passengers, thus making it impossible to compare unless some assumptions are made.

Exhibit 6: Passenger facility charge

![Graph showing passenger facility charge for various airports]

Source: prepared by the consultant

KZN’s passenger facility charge is USD 8.03 per departing passenger, resulting in one of the least expensive airports in the sample (only Samara and Perm have lower charges). Other airports feature charges as high as USD 31.

Exhibit 7: All passenger charges and taxes
The following table (Exhibit 8) details the “Other” concept.

**Exhibit.8: “Other” charges**

<table>
<thead>
<tr>
<th>airport</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Baku</td>
<td>n/a</td>
</tr>
<tr>
<td>2  Tbilisi</td>
<td>Airline regulation fee</td>
</tr>
<tr>
<td>3  Kazan</td>
<td>n/a</td>
</tr>
<tr>
<td>4  Moscow – Domodedovo</td>
<td>n/a</td>
</tr>
<tr>
<td>5  Moscow – Vnukovo</td>
<td>n/a</td>
</tr>
<tr>
<td>6  Novgorod</td>
<td>n/a</td>
</tr>
<tr>
<td>7  Perm</td>
<td>n/a</td>
</tr>
<tr>
<td>8  Samara</td>
<td>n/a</td>
</tr>
<tr>
<td>9  St. Petersburg</td>
<td>n/a</td>
</tr>
<tr>
<td>10 Yekaterinburg</td>
<td>n/a</td>
</tr>
<tr>
<td>11 Kharkiv</td>
<td>State tax</td>
</tr>
</tbody>
</table>

Source: prepared by the consultant

Kazan’s position against other airports remains invariable when considering all charges and taxes levied on passengers. Its PFC is still one of the cheapest, and now by a larger margin.
The following table (Exhibit 9) details all charges and taxes.
## Exhibit 9: Passenger Charges and taxes (in USD, per departing passenger)

<table>
<thead>
<tr>
<th></th>
<th>airport</th>
<th>PFC $</th>
<th>Security $</th>
<th>Other $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>remarks</td>
<td>remarks</td>
<td>remarks</td>
</tr>
<tr>
<td>1</td>
<td>Baku</td>
<td>31.2</td>
<td>15.6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Tbilisi</td>
<td>22.0</td>
<td>5.0(^{17})</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>also aircraft based</td>
<td>Airline regulation fee</td>
</tr>
<tr>
<td>3</td>
<td>Kazan</td>
<td>8.03</td>
<td>n/a</td>
<td>aircraft based</td>
</tr>
<tr>
<td>4</td>
<td>Moscow – Domodedovo</td>
<td>12.8</td>
<td>6.4 per arriving and departing passenger</td>
<td>3.2</td>
</tr>
<tr>
<td>5</td>
<td>Moscow – Vnukovo</td>
<td>9.0</td>
<td>4.5 per arriving and departing passenger</td>
<td>3.2</td>
</tr>
<tr>
<td>6</td>
<td>Novgorod</td>
<td>8.0</td>
<td>n/a</td>
<td>aircraft based</td>
</tr>
<tr>
<td>7</td>
<td>Perm</td>
<td>5.6</td>
<td>n/a</td>
<td>aircraft based</td>
</tr>
<tr>
<td>8</td>
<td>Samara</td>
<td>7.3</td>
<td>3.64 per arriving and departing passenger</td>
<td>n/a</td>
</tr>
<tr>
<td>9</td>
<td>St. Petersburg</td>
<td>22.5</td>
<td>11.25 per arriving and departing passenger</td>
<td>n/a</td>
</tr>
<tr>
<td>10</td>
<td>Yekaterinburg</td>
<td>20.0</td>
<td>10.0 per arriving and departing passenger</td>
<td>n/a</td>
</tr>
<tr>
<td>11</td>
<td>Kharkiv</td>
<td>11.0</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>State tax</td>
<td></td>
</tr>
</tbody>
</table>

Source: prepared by the consultant

\(^{17}\) Assumes passenger on international travel
Security charge

Security charges are compared in this section and separate from passenger charges, since this charge is weight-based\(^{18}\) rather than passenger-based on some of the airports from the sample. Nominal charges cannot be compared side by side as they use different units. With that in mind, a combination of aircraft MTOW and passenger numbers was developed to enable an objective comparison of security charges across the airports.

An Airbus A320 was used for the calculations, with an assumed load factor of 60%. The load factor indicates the number of available seats that are occupied by revenue passengers.

The difficulty of comparing different rates is overcome by evaluating security charges for an aircraft with passengers on-board, since the calculations implicitly consider the different schemes, be it by aircraft MTOW, number of passengers or a combination of both. The following graph (Exhibit 10) compares security charges levied both on the aircraft and the passengers.

**Exhibit 10: Airbus A320 with 60% load factor security charge**

Source: prepared by the consultant

At EUR 10 per passenger, Baku results the most expensive airport in the sample with total charges over USD 1,450. The other airports range between USD 163 and USD 454 and KZN is positioned in the upper segment of the distribution totaling USD 429.

The following table (Exhibit 11) details security unit rates.

**Exhibit 11: Security charges (in USD)**

<table>
<thead>
<tr>
<th>Airport</th>
<th>rate(^{19})</th>
<th>basis(^{20})</th>
</tr>
</thead>
</table>

\(^{18}\) Based on the aircraft MTOW  
\(^{19}\) epax: enplaned passenger  
\(^{20}\) Per aircraft charges calculated based on aircraft’s MTOW and only apply once per turnaround.
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

<table>
<thead>
<tr>
<th></th>
<th>City</th>
<th>Charge</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Baku</td>
<td>15.6/epax</td>
<td>per passenger</td>
</tr>
<tr>
<td>2</td>
<td>Tbilisi</td>
<td>5.0/epax and 2.0/ton</td>
<td>per passenger and per aircraft</td>
</tr>
<tr>
<td>3</td>
<td>Kazan</td>
<td>5.6/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>4</td>
<td>Moscow – Domodedovo</td>
<td>3.2/epax</td>
<td>per passenger</td>
</tr>
<tr>
<td>5</td>
<td>Moscow – Vnukovo</td>
<td>3.2/epax</td>
<td>per passenger</td>
</tr>
<tr>
<td>6</td>
<td>Novgorod</td>
<td>3.0/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>7</td>
<td>Perm</td>
<td>5.3/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>8</td>
<td>Samara</td>
<td>3.7/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>9</td>
<td>St. Petersburg</td>
<td>4.9/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>10</td>
<td>Yekaterinburg</td>
<td>5.9/ton</td>
<td>per aircraft</td>
</tr>
<tr>
<td>11</td>
<td>Kharkiv</td>
<td>1.7/epax</td>
<td>per passenger</td>
</tr>
</tbody>
</table>

Source: prepared by the consultant

6. **Navaid charges**

All charges related to navigational and meteorological services are included under navaid. Navaid charges are based on aircraft MTOW at every airport. Additional charges for meteorological, approach or other navigational services are priced differently at most of the airports. Some have fixed charges per flight, while some other take aircraft weight into consideration.

Since there is a night surcharge on navaid charges, the following graphs (Exhibit 12 and Exhibit 13) display navaid and related services charges for an Airbus A320 for daylight and night operations.
With charges ranging from USD 338 to USD 658, KZN stands on the lower part of the price distribution for daylight flights, at USD 389. On night operations KZN’s price remains constant as there are no surcharges, distancing more from the most expensive airports.
7. Conclusion – Total turnaround charges

As some charges are levied on the aircraft and others on the passengers, the only way to compare all the charges together is by calculating the cost of a turnaround. Turnaround refers to all the activities that take place on the ground between flights, such as passenger and cargo loading and unloading, refueling, etc.

For the purpose of this study, only those charges covered in the scope were included in the turnaround calculation. Refueling, catering, aircraft cleaning, and other operations are not considered whatsoever.

The calculation was performed for an Airbus A320 aircraft\(^\text{21}\), for two turnaround times (of 2 and 4 hours) and for daylight and night operations.

The following graphs (Exhibit 14 and Exhibit 15) present the turnaround costs including landing fees, parking fees, passenger facility charge, security and navaid.

Exhibit 14: Airbus A320 turnaround cost (daylight operation)

\(^{21}\) Turnaround cost for the Embraer 170 and Boeing 787-8 can be found in the Appendix 1.
Total cost in KZN for an Airbus A320, 2-hour, daylight turnaround is USD 2,492, and USD 45 have to be added for two additional hours. The price is unchanged for night operations. When compared against the rest of the sample Kazan is among the airports with lowest charges, although it’s still more expensive than 4 other airports in the Russian Federation.

Since there are no night surcharges applied at KZN, the price margins versus other airports becomes wider for night operations, and it only results more expensive than two instead of four out of ten airports.
Appendix 1

Exhibit 16: Embraer 170 turnaround cost (daylight operation)

Source: prepared by the consultant

Exhibit 17: Embraer 170 turnaround cost (night operation)

Source: prepared by the consultant
Exhibit 18: Boeing 787-8 turnaround cost (daylight operation)

Source: prepared by the consultant

Exhibit 19: Boeing 787-8 turnaround cost (night operation)

Source: prepared by the consultant
Annex 2

Kazan International Airport: Pre-Feasibility Financial Model. Overview of key assumptions and controls used in the model


This document presents the value of and justification for key assumptions used in the financial model. The value of each parameter was determined to reflect the current or likely situation as accurately as possible. However, in many instances precise data was not available and it is expected that several key assumptions will be confirmed once the airport obtains Master Plan detailing investment/development program.

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Description</th>
<th>Value</th>
<th>Source</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBA – General</td>
<td></td>
<td></td>
<td></td>
<td>Can be adjusted</td>
</tr>
<tr>
<td>Project Name</td>
<td>Name of the Project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periodicity</td>
<td>Subdivision into periods</td>
<td>YR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days in Yr</td>
<td></td>
<td>365</td>
<td></td>
<td>Can be adjusted</td>
</tr>
<tr>
<td>Beginning/End Yr in Forecast Period</td>
<td>Beginning and end of simulation/Forecast tem of 20 years</td>
<td>2008 through 2028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phases 1, 2, and 3 of airport construction schedule start</td>
<td>Phases of construction start (first landside with airside to follow)</td>
<td>Years 2010, 2017, 2020</td>
<td></td>
<td>Can be adjusted and will feed in to the schedule on ‘Capex’ tab Significant impact on model’s output</td>
</tr>
<tr>
<td>In addition to debt and equity sources, model assumes receipt of Federal Grant to finance the airport upgrade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBA-Timeline</td>
<td>Description</td>
<td>Year</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>Scenario stating whether inflation is applied</td>
<td></td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>First Period of Operation</td>
<td>First period of projections (applies inflation to projected sales and cost figures starting 2008)</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tariff Structure</td>
<td>Switches between old tariff structure based on carrier origin to new ‘international standard’ tariff structure based on destination origin</td>
<td></td>
<td>OLD/NEW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>First Period of New Tariff Structure</td>
<td>Shows 1st period of new tariff structure (can be manually changed)</td>
<td>2012</td>
<td>Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>Tariff Sensitivities</td>
<td>Allows to calibrate level of each new tariff and input yr when such calibration % should be applied</td>
<td>Now: all 100%, year of change 2012</td>
<td>Impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>Collections</td>
<td>Allows to project revenues under scenario of non-collection of airside revenues from base carrier; switch should be omitted altogether if base carrier payments for all charges categories are received by the airport</td>
<td>Full/Partial/N/A; year when partial collections cease</td>
<td>KIA historical data WB estimate</td>
<td>Lack of exact data and discrepancy between level of airside revenues and tonnage/movements information rendered necessity of this assumption, should be switched to N/A if full collection from base carrier is achieved; Impact on revenue and cash flows</td>
</tr>
<tr>
<td>NTBA-Traffic</td>
<td></td>
<td>LOW/BASE/HIGH</td>
<td>Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>[Traffic] Scenario</td>
<td>Switches between movements and traffic volume forecasts and feeds the data into the revenue projections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Traffic Breakdown</td>
<td>Fixed parameters used in separating traffic data by carrier and destination origin</td>
<td>KIA</td>
<td>Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>[Take Off/Landing] Selected</td>
<td>Allows to pick traffic data based on all movements or only on take-off/landings</td>
<td>All Movements/Take Off OR Landing</td>
<td>Scenario was necessitated by lack of clarity of airside charges methodology used by the airport and allows to project revenues based on either option; Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>Initial Tonnage Breakdown</td>
<td>Applies set tonnage per aircraft considering carrier/destination combo category</td>
<td>International Flights Foreign Carriers: 77.2; International Flights Domestic Carriers 158.4; Domestic Flights Domestic Carriers 71.76</td>
<td>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</td>
<td></td>
</tr>
<tr>
<td>Tonnage Scenario</td>
<td>Allows to pick historical plane mix and project tonnage accordingly vs. assuming gradual move of carriers towards greater share of western planes in the fleet mix and comparing such with tonnage &amp; fleet mix</td>
<td>Initial AND Calibrated</td>
<td>Lack of clarity on tonnage used by KIA historically and trend of airlines toward increasing western planes share in their fleet promoted the need for the switch</td>
<td></td>
</tr>
</tbody>
</table>
### KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

<table>
<thead>
<tr>
<th>Projections</th>
<th>Sets % and respective years of Russian aircraft in domestic carrier traffic</th>
<th>2008-2013: 90%; 2013-2018: 60%; after 2018: 30%</th>
<th>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnage Per Aircraft Type: Russian Planes/Domestic Carriers</td>
<td>Sets % and respective years of Russian aircraft in domestic carrier traffic</td>
<td>2008-2013: 90%; 2013-2018: 60%; after 2018: 30%</td>
<td>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</td>
</tr>
<tr>
<td>MTOW of Russian Planes by Type</td>
<td>Sets Max Take Off Weight per Airplane by Type</td>
<td>&lt;101 Seats MTOW (tons): 34; 101-172 Seats MTOW (tons): 62; &gt;172 Seats MTOW (tons): 215</td>
<td>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</td>
</tr>
<tr>
<td>MTOW of Western Planes by Type</td>
<td>Sets Max Take Off Weight per Airplane by Type</td>
<td>&lt;101 Seats MTOW (tons): 35; 101-172 Seats MTOW (tons): 77; &gt;172 Seats MTOW (tons): 219</td>
<td>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</td>
</tr>
<tr>
<td>General Aviation (Tonnes)</td>
<td>Sets Max Take Off Weight per Non-Commercial/General Aviation Airplane (all assumed to be operated by Russian Carriers)</td>
<td>12 (tones)</td>
<td>KIA tonnage breakdown unknown and calls for number of assumptions; Significant impact on revenue and cash flows</td>
</tr>
<tr>
<td>NTBA-Revenues</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Tariffs Indexed To Inflation</th>
<th>Indexes tariffs to inflation</th>
<th>YES/NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Take Off/Landing Charge (per MTOW)</td>
<td>Tariff in 2008 (inflated accordingly); USD tariff under new structure on international destinations</td>
<td>Foreign Carriers (USD): 11.6; Domestic Carriers (RUR): 277.59</td>
<td>KIA</td>
</tr>
<tr>
<td>Aircraft Parking Charge</td>
<td>Here projected as % of Landing Fee</td>
<td>14%</td>
<td>KIA</td>
</tr>
<tr>
<td>Nav Aid Charges</td>
<td>Historical Average Per Movement (RUR) in 2008 (inflated accordingly)</td>
<td>261.50</td>
<td>KIA</td>
</tr>
<tr>
<td>Share of Nav Aid Received By Airport (under PSP)</td>
<td></td>
<td></td>
<td>Not used at the moment</td>
</tr>
<tr>
<td>Meteo Support Charge</td>
<td>Charge per Aircraft Movement (RUR)</td>
<td>1500</td>
<td>KIA</td>
</tr>
<tr>
<td>Share of Meteo Support Received By Airport (under PSP)</td>
<td></td>
<td></td>
<td>Not used at the moment</td>
</tr>
<tr>
<td>Security Charge (per MTOW)</td>
<td>Charge per Aircraft Movement in 2008 (inflated accordingly); USD tariff under new structure on international destinations</td>
<td>Foreign Carriers (USD): 5.6; Domestic Carriers (RUR) 131.76</td>
<td>KIA</td>
</tr>
<tr>
<td>International Airlines Fee-Based Services Charge</td>
<td>Share of Foreign Carriers Landing Fee based on historical observations</td>
<td>50%</td>
<td>KIA</td>
</tr>
<tr>
<td>Based Services Charge</td>
<td>Fee based on historical observations</td>
<td>under new tariff structure</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Passenger Service Fee Charge</td>
<td>Tariff in 2008 (inflated accordingly); USD tariff under new structure on international destinations</td>
<td>KIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Carrier International Flight (USD): 9.5; Domest. Carrier Domestic Flight (RUB): 124</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Domest. Carrier International Flight (RUB): 189.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport Terminal Usage Charge</td>
<td>Tariff in 2008 (inflated accordingly); USD tariff under new structure on international destinations</td>
<td>KIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Carrier International Flight (USD): 2.4; Domest. Carrier Domestic Flight (RUB): 37.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Domest. Carrier International Flight (RUB): 58.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramp Handling Charge</td>
<td>Average per Commercial Aircraft Movement (RUR)</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KIA</td>
<td>Lack of exact data on item-by-item basis</td>
<td></td>
</tr>
<tr>
<td>Cargo &amp; Mail Charge</td>
<td>Share of Total Domestic Carriers Passenger and Terminal Fees</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KIA</td>
<td>Lack of exact data on item-by-item basis</td>
<td></td>
</tr>
<tr>
<td>Duty/Tax Free per International PAX (USD)</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Duty/Tax Free Directly Operated by Airport Scenario</td>
<td>Switch to activate the option; % of fee retained by the airport (if applicable)</td>
<td>YES/NO; 15%</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
<td>---</td>
</tr>
<tr>
<td>Rents Increase upon Landside Expansion</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>General Retail Fee per PAX (USD)</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Utilities [including telecom, energy] upon Landside Expansion</td>
<td></td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Cleaning upon Landside Expansion</td>
<td></td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Transport upon request</td>
<td>% of PAX; Per Passenger (RUR)</td>
<td>1%; 600</td>
<td></td>
</tr>
<tr>
<td>Other commercial fees/terminal-related as % of land-side revenues</td>
<td></td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Advertising per PAX (USD)</td>
<td></td>
<td>.8</td>
<td></td>
</tr>
<tr>
<td>In-flight Catering per Departing Domestic PAX (RUR)</td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>In-flight Catering Directly Operated By Airport Scenario</td>
<td>Switch to activate the option; % of royalty by outside operator</td>
<td>YES/NO</td>
<td>% royalty by outside operator – not used at the moment</td>
</tr>
</tbody>
</table>
## Scenario

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant/Café per PAX (USD)</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Restaurant/Café Directly Operated By Airport Scenario</td>
<td></td>
<td>Switch to activate the option; % of royalty by outside operator YES/NO</td>
</tr>
<tr>
<td>% of Non-Aeronautical Income Retained under PSP</td>
<td></td>
<td>not used at the moment</td>
</tr>
</tbody>
</table>

### NTBA-Operating Costs

<table>
<thead>
<tr>
<th>Efficiency gains in operating costs</th>
<th>Reduces costs once refurbishment complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of years to reach full efficiency (YR)</td>
<td>Gradually increases cost efficiency over 5 years</td>
</tr>
<tr>
<td>Maintenance Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Utilities (Electricity, Natural Gas) Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Fuels and Lubricants; Deicing Agent Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Description</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Restaurant/Café Inputs Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Historical In Flight Catering Expense per Domestic Passenger (RUR)</td>
<td>No. estimated on historical data</td>
</tr>
<tr>
<td>Other Materials Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>% of In-Flight Catering Out of Total Food Inputs</td>
<td>% estimated based on historical data used to break down food costs into in-flight catering and restaurant/cafe</td>
</tr>
<tr>
<td>Labor &amp; Benefits Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Labor &amp; Benefits % reduction under PSP option</td>
<td>Will assume % reduction in labor costs if airport is under private sector management</td>
</tr>
<tr>
<td>Other O&amp;M Expenses Correlation Factor with Landside/Airside Area Change</td>
<td>Calibrates cost increase after completion of the upgrade</td>
</tr>
<tr>
<td>Historical Deferred Income (in 2007 RUR)</td>
<td>Historical parameter to feed into Balance Sheet</td>
</tr>
</tbody>
</table>
### KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

| Extraordinary Expenses Scenario Selected | Adds/removes extraordinary expenses line to P&L | YES/NO | balance sheet in yrs 2004-2006/no 2007 balance sheet available |
| Working Capital Days on AR | Cell picks the average historical day turnover no based on 2004-2006 balance sheet | 90 day in base case | KIA | approximate figures appear on balance sheet in yrs 2004-2006/no 2007 balance sheet available |
| Working Capital Days on AP | Cell picks the average historical day turnover no based on 2004-2006 balance sheet | 90 day in base case | KIA | approximate figures appear on balance sheet in yrs 2004-2006/no 2007 balance sheet available |

#### NTBA-Investment Program/Capital Expenditures

| Increase in size following construction (%) | % increase in facilities size to be applied toward appropriate revenue and O&M costs calibration | 30% |  |
| Upgrade Airside Cost (USD MM IN 2008 PRICES) | | 116 | Consultations with Kazan GIPRO NII | No exact information; lack of Master Plan. For Further Capex Assumptions go to “Financ” tab |
| Upgrade Landside Cost (USDm in 2008 prices) | | 190 | Consultations with Kazan GIPRO NII | No exact information; lack of Master Plan. For Further Capex Assumptions go to “Financ” tab |
### KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

<table>
<thead>
<tr>
<th>Upgrade Other Cost (USDm in 2008 prices)</th>
<th>50</th>
<th>Consultations with Kazan GIPRO NII</th>
<th>No exact information; lack of Master Plan. For Further Capex Assumptions go to “Financ” tab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Debt Interest Rate/Coupon [base case] in “Financ” tab</td>
<td>Annual interest rate on debt</td>
<td>9.8%</td>
<td>Average rate used for financing transport PPP debt in Russia; can be changed</td>
</tr>
<tr>
<td>Construction Debt Amortization Period [including grace period] (YR) in “Financ” tab</td>
<td>Period to amortize construction debt principal amount</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Construction Debt Principal &amp; Fee Grace Period (YR) in “Financ” tab</td>
<td>Interest is capitalized during construction (construction to take 3 yrs according to March 2008 consultations with Kazan GIPRO NII)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Upgrade Capex Depreciation Years</td>
<td>Years to depreciate the capital investment in upgrade of fixed asset (airside and landside)</td>
<td>20</td>
<td>No exact info on levels of investment</td>
</tr>
<tr>
<td>Federal Grant Amount (Rubles) in “Financ” tab</td>
<td>2,750,000,000</td>
<td></td>
<td>No exact information (based on assumptions in the financial model)</td>
</tr>
</tbody>
</table>

| NTBA-Taxes | | | |
| Income Tax | | | |
### VAT

<table>
<thead>
<tr>
<th>NTBA Cost of Capital</th>
<th></th>
<th>18%</th>
<th>All statements are currently net of VAT</th>
</tr>
</thead>
</table>
| Debt of Total Financing Need (after grant) | Share of debt to finance the upgrade | 70% or 50% depending on scenario | Will feed in to the schedule on ‘Financ’ tab
| | | | Significant impact on model’s output |
| Equity of Total Financing Need (excluding grant) | Share of equity to finance the upgrade | 30% of 50% depending on scenario | Will feed in to the schedule on ‘Financ’ tab
| | | | Significant impact on model’s output |
| Debt Service Coverage Ratio | | 1.35 | |
ANNEX 3
Draft TOR for Project Consultant Engineer/Technical Advisor

A. Background

1. Kazan International Airport (KIA) is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow's three airports. With respect to the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with levels of service that need improving.

2. Kazan, therefore, needs to upgrade and expand its airport infrastructure to keep pace with traffic growth and improve service levels. The Government recognises that without a strong local carrier, and given the proximity of KIA to the country’s main hub system (comprised of the three largest airports), there are limited possibilities to develop a hub. Therefore, the airport development strategy revolves around catering for and developing origin and destination (O&D) traffic. The Government is exploring options to develop the airport facilities and related infrastructure via a public private partnership. Given the regulatory restrictions that ban private participation in the ownership of the airside facilities, one of the possible options is a Master Concession Agreement that combines two different projects, one for the airside facilities (O&M) and the other for landside facilities (BOOT).

3. It has been estimated that the development costs for the new terminal and related infrastructure will be around Rubles 4,500 million (EUR 130 million). In addition around Rubles 2,750 million (EUR 80 million) are estimated for the airside. These figures are estimates based on the 2001-2002 Master Plan developed by the Design Institute, Gipro NII Aviaprom, for KIA expansion.

Kazan Airport Economics

4. For more information on the KIA Airport Expansion project and private sector participation options currently under consideration, please refer to attachment 1 (“KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008, World Bank”).

Defining the Transaction

5. Since federal regulations prevent private ownership of airside facilities, several project structures are being considered. The principal one would work under a 25 to 30 year single Master Concession Agreement (MCA): (a) a build-own-operate-transfer (BOOT) scheme for the landside facilities (i.e., passenger and cargo terminals and related infrastructure), and (b) a Operation & Maintenance (O&M) scheme for the airside facilities (i.e., runway, taxiways and apron) (for ease of reference the term PPP agreement will be used here to refer to all the agreements and legal documents that will need to be developed). The transaction is defined as the successful bidding of the MCA by an experienced bidder (consortium) ensuring optimization of the bid award criteria (to be defined).

Technical Assistance Team
6. The Government of Tatarstan (“executing agency for the project”) is contracting the services of the following advisors as part of the technical assistance team: (i) financial advisors, (ii) legal advisors, (iii) traffic consultants, and (iv) consultant engineer/technical advisors. The technical assistance team will work closely with KIA and the Government in the proposed airport expansion project.

B. Objective and Scope of the Assignment

7. The objective of the assignment is to provide airport related technical support in the following three areas (i) Minimum Technical Requirements (MTRs) and preparation of the transaction, (ii) Development of the technical part of the bid documents, and (iii) support the client and the relevant advisors with the technical specifications and requirements during the bid process.

8. Design of the transaction / Project Review: The consultant engineer will be requested to:

(a) Develop the Minimum Technical Requirements (MTRs) that should be followed by the bidder in constructing, maintaining and operating the airport throughout the entire concession period. These MTRs will include:

   (a) Establish a baseline for: planning, designing, constructing, operating and maintaining the old and new facilities of the airport against which bidders will bid, the bid evaluation committee will evaluate bids and the Project will be implemented;

   (b) Provide a method for evaluation of bids against the baseline, including variant bids to the extent relevant, ranking those bids based on the characteristics that are key for the Grantor, enabling the bid evaluation committee to make an informed choice, to ensure compliance with the MTRs and providing a scoring system where the bids exceed the MTRs;

   (c) Provide a regime for monitoring the performance of the new operator of the airport, ensuring compliance with its contractual and legal obligations, which will include milestones, standards and triggers confirming the specified service levels during the concession period;

   (d) Ensure:

      ③ That all safety considerations and levels of services are observed. With respect to airside operations, safety standards will be set as the minimum based on full compliance to Annex 14 to the ICAO Convention of 1944. This will imply defining the minimum standards for all the facilities in the airside.

      ③ At least, a Level of Service according to IATA’s LOS “C”, with all aspects related to passenger processing

      ③ Security requirements should be defined for both airside and landside areas, with a minimum compliance according to ICAO’s Annex 17

(b) Perform an initial project review (including a review of the Master Plan) and Data Collection

(c) Prepare the technical parts of a Preliminary Information Memorandum, Information Memorandum, and as required other relevant marketing materials, and support the production of such documents

(d) Perform a terminal design review and an airport infrastructure review as the basis for providing capital and operating expenditure estimates to facilitate the financial modelling work of the financial advisors
Support the preparation of a data room including (i) preparing a detailed list of technical documents to be included in the data room, (ii) supporting the collection of such documents and (iii) checking that such documents are fit for purpose in relation to the proposed transaction. This should include (but not be limited to) land uses aspects, geological aspects, site utilities considerations, transport connections, environmental aspects, past investment programme for the airport, past operation and maintenance programme for the airport etc.,

9. Prequalification: the Consultant Engineer will be requested to:

(f) Preparation of technical inputs for Expression Of Interest (E.O.I) and Prequalification (PQ) documents:

(g) Preparation of marketing materials: this will include preparing the relevant documents for issue to interested firms, including relevant advertisements and relevant participation to marketing events/road shows (eg prepare relevant presentation, participate ad hoc in the presentations, prepare relevant Q&A for road show etc.), help identify potential eligible firms and prepare relevant project description, project size and beneficiaries, broad implementation frameworks and timeframes, estimated cost etc.

(h) Designing and proposing technical selection criteria and the different technical schedules for procuring the information from the candidate justifying the firm’s experience and capability in the sector. This might include, specific experience in related/similar projects, number of projects handled, specially personally & management staff, number of projects bid for, those in pipeline: projects at hand, under designing, commissioning, under operation, future plans for expansion (in terms of takeover/merger if in process) manpower etc..

(i) Design pass/fail evaluation criteria. The criteria shall define the minimum criteria for prequalification and might include parameters such as length of experience in business, size of projects executed/commissioned, efficiency and performance of recent projects, and any other relevant criteria that the Consultants shall propose to apply for evaluation.

(j) Prepare the necessary schedules for providing to the bidding firms, in order to facilitate submission of information in an organized form for ease of evaluation. This task shall also include preparing the formats for evaluating the firms for the purpose of reporting and providing recommendations.

(k) Once such criteria and documents are finalised, support the integration of such documents in the EOI and PQ documents

10. Prequalification: the Consultant Engineer will be requested to:

(l) Preparation of Request For Proposal (RFP). This task shall include preparation of all necessary technical data on the project necessary to enable bidders to prepare a fully costed bid proposal. The Consultant shall provide all required support with respect to (i) technical risk allocation (eg identify technical risk and present possible risk mitigation to be included in the relevant project agreements), (ii) preparation drafting, revision and finalisation of all the technical annexes to the PPP agreement and all other related documents and agreements that will require technical input. These documents will be prepared according to the local legal framework, and should take into consideration the findings and recommendations made in the master plan study, as well as recognized control mechanisms under the responsibility of government agencies (air traffic control, meteorology, police, immigration, customs and air transport services provided in accordance with ICAO standards). The Consultant shall therefore, based on the data
provided in the Master Plan and other documents/information provided, (i) prepare the
technical inputs for the RFP documents (ii) ensure that the relevant part of the RFP
documentation (either instruction to bidders, concession agreements or other relevant
documents) are fully developed (iii) ensure that such documents are amended in
coordination with the advisors inputs to be integrated in a fully cohesive project
documentation. This might include amongst others:

③ Vol. I: Project Description, Scope of Bid Proposal, Instruction to Bidding firms
including Formats for Proposal Submission, Bid processing methodology, Bid
Security and Performance Guarantee, Proposal Opening and Evaluation, and
Award of Contract,

③ Vol. II: Project Document - Design Criteria, Specifications for construction,
instruction for detail design, testing and commissioning etc., Performance
Standards and Technical Schedules,

③ Vol. III: Master plan Document and Drawings, etc.

③ Vol. IV: Airport Business Plan Document,

③ Vol. V: Draft project Agreements, Concession agreement: These may include the
following, though the scope and structure of the commercial documentation will
depend on the work of the financial and legal advisers:

(a) The concession agreement is likely to include the definition and
interpretation, the concession, grant of concession, condition precedent,
obligation of City Government, representation and warrants, other provision,
liability and indemnity, dispute resolution and miscellaneous. In addition to
above, the various schedules, such as airport clearance, description of Phase-
wise development of airport, airport activity, non-airport activity, regulated
charges, reserved activities, standard specifications, completion certificate,
insurance, tax benefit, etc.

(a) State Support Agreement: The state support agreement is likely to include
recitals, definition and interpretation, City Government support, general
support, acknowledge assistance and support by Government sovereign
amenity, representation of the parties, events of compensation, defaults,
amicable resolution and arbitration, related disputes, termination,
miscellaneous, etc.

(b) Development Agreement: Development agreement will cover the recitals,
definition and interpretation, term, obligations of the parts, development of
airport, marketing of airport, operation and maintenance of airport,
submission of progress report, furnishing of bank guarantee, insurance
coverage, employees, third party agreement, independent engineer, lease of
land, sub-lease, revenue sharing, maintenance fund, financing, pre-expiry
process, approval, condition precedent, project closure, representation,
warranties and covenants, indemnity, force majeure, notices, governing law,
dispute resolution, miscellaneous. In addition to above, various schedule
covering, development mild stones and dates, description of the lease land,
operation and maintenance standard, progress report, independent engineer
and utilities, etc.

③ Vol.VI: Form of Proposal, Schedules, Bid Quote
Such preparation might require advice on fee payments, penalties regime, monitoring and audit systems, handover provisions, role of independent engineer etc..

11. Implementation of the transaction: the consultant engineer will:

(a) Support the Evaluation of EOI and PQ documents:

   ① Review the documents received from the bidding firms on the basis of the criteria developed for evaluation criteria, along with specific criteria such as financial net worth, present commitments in terms of financial and manpower to other projects, specific experience in similar projects, firms with experience in the Russian context etc shall be applied to shortlist of potential firm. The evaluation shall be documented in the evaluation formats developed for this purpose.

   ③ Based on the evaluation exercise, shortlist potential firms qualified for bidding. A summary report describing the adopted procedure, criteria and formats used, summarizing key information for each bidding firm on the basis of which evaluation was performed, and a shortlist of firms shall be prepared and present the evaluation report for approval from competent authority.

(b) Support the effort of marketing the transaction in pre- bid conferences and clarifications meetings during the bidding period

   ① In cooperation with the Financial Advisor, prepare for 1st pre-bid conferences and participate in conferences, respond to queries raised by the bidding firms, assist the City Government in site visits for the firms, examine the bidders concerns and respond accordingly.

   ③ The various bidders concerns need to be analyzed and will be presented for consideration of the competent authority and upon their approval, the final RFP will be prepared and issued to pre-qualified pre-bidders.

   ③ Further pre-bid conferences may beheld to clarify enquiries, if any, raised by bidders followed by issue of corrigendum to final RFP duly approved by competent authority.

(c) Provide the technical input for the Evaluation of Technical Bids: The Consultant shall prepare necessary formats of receipt of proposals and their evaluations. Evaluation of technical proposals shall include but not be limited to the following:

   ③ Assessment of design/technical proposal, compliance with design criteria and adequacy of the design to meet the performance standards

      1. compliance with design criteria adopted
      2. compliance with performance standards
      3. compliance with environmental and social requirements
      4. compliance with EOI and RFP requirements
      5. compliance with monitoring requirements
      6. review of basis/assumption for design
      7. review of workability and security systems, disaster/emergency management systems

   - Request clarification on the technical proposals submitted by bidders in order to evaluate and shortlist technically qualified bidders.
• Document all clarifications sought and replies obtained, summarize the final technical design with respect to criteria, performance standards, size of system elements, material and equipment requirement, procurement plan and procedure the process adopted for evaluation and prepare technical bid evaluation report. The report shall summarize the selection and recommendation of the bidders selected and the reasons for proposals rejected. The Consultants shall provide and present the evaluation report for review and approval of competent authority.

12. Support during negotiations to financial close:

The technical consultant will support the Grantor in the negotiation process with the successful bidder and any second bidder and their lenders as relevant on all technical matters, including but not limited to explanation of the technical position taken in the PPP agreement or other documentation, explanation of the commercial structure of the Project and negotiation of changes that the relevant counter-party wishes to make to those agreements or documents, up to and including financial close of the Project.

**Deliverables**

13. The technical adviser will work closely with the financial and legal advisers, and in particular under the coordinating role of the financial advisers, when providing its advice to the Government of Tatarstan/Kazan and KIA. The technical advisor will make itself available as requested by the client to ensure adequate coordination with the client, the financial and legal advisors.

14. The deliverables will include client approved version of:

- the final version of the capital and operating cost estimates
- the final version of the data room contents
- the EOI and PQ documents (as sent to the market)
- the RFP documents (as sent to the market)
- signed version of project documentation (eg documentation at financial close)

**C. Structure of the Proposal**

15. The Consultant, , will be required to present two proposals, which will include the following details:

(a) **Technical proposal**

- Scope of work (along the lines of the outline contained in this document)
- Project team (experience in similar transactions in this sector and other infrastructure areas)
- Experience with similar projects in the air transport sector
- Staff time. Please provide detailed staff allocation time to this project.
- Proposed timetable

When developing the technical proposal please see attachment 2 (suggested timetable).

(b) **Financial proposal.** The financial proposal should be a fixed budget (lump sum), detailing the following:

- Staff time cost estimates (time and cost per consultant)
- Travel costs
Other expenses

Payment will be made against milestones deliverables in the following manner:

- Capital and operating cost estimate: 5% of Lump sum
- Data room opening: 5% of lump sum
- EOI and PQ documents sent to the market: 15% of lump sum
- RFP documents sent to the market: 35% of lump sum
- Signed version of project documentation: 40% of lump sum

D. Selection Criteria

16. The Selection Committee (“executing agency as the secretary”) will evaluate the proposals in two phases:

1) Technical evaluation:

Criteria for the evaluation of technical proposals are:

<table>
<thead>
<tr>
<th>Points</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i) Specific experience of the Advisors relevant to the assignment: 10</td>
</tr>
<tr>
<td></td>
<td>(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference including:</td>
</tr>
<tr>
<td></td>
<td>(a) technical approach and methodology;</td>
</tr>
<tr>
<td></td>
<td>(b) work plan;</td>
</tr>
<tr>
<td></td>
<td>(c) organization and staffing 25</td>
</tr>
<tr>
<td></td>
<td>(iii) Key professional staff qualifications and competence for the assignment: 50</td>
</tr>
<tr>
<td></td>
<td>(iv) Local presence in Russia 10</td>
</tr>
<tr>
<td></td>
<td>(v) Experience in Russia 5</td>
</tr>
</tbody>
</table>

The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights:

1) General qualifications 30%
2) Adequacy for the assignment 50%
3) Experience in region and language 20%

Total weight: 100%

The minimum technical score required to pass is: 70 Points

2) Financial evaluation. The formula for determining the financial scores is the following:

\[ S_f = 100 \times \frac{F_m}{F} \]

in which \( S_f \) is the financial score for the advisor’s financial proposal, \( F_m \) is the lowest price submitted by all potential advisors, and \( F \) is the price of the proposal under consideration.
The weights given to the Technical and Financial Proposals are:

\[ T \text{ (technical)} = 0.6, \text{ and} \]
\[ P \text{ (price)} = 0.4 \]

OR

2.

1. **Technical evaluation.** This evaluation will be done on the basis of qualifying (or not) for passing to the second phase of financial evaluation (“pass” or “no pass”). Evaluation will be done on the basis of: (i) understanding of the proposed assignment, (ii) quality and experience of the team, (iii) experience of the institution in MTR definition, safety standards and levels of service, (iv) experience of the firm in developing criteria for technical bid evaluation.

2. **Financial evaluation.** This evaluation will be done on the basis of the lowest bid.

Government of Tatarstan
Kazan
June 2008
Draft TOR for Project Traffic Forecasting Specialist

D. Background

1. Kazan International Airport (KIA) is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow's three airports. With respect to the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with levels of service that need improving.

2. Kazan, therefore, needs to upgrade and expand its airport infrastructure to keep pace with traffic growth and improve service levels. The Government recognises that without a strong local carrier, and given the proximity of KIA to the country’s main hub system (comprised of the three largest airports), there are limited possibilities to develop a hub. Therefore, the airport development strategy revolves around catering for and developing origin and destination (O&D) traffic. The Government is exploring options to develop the airport facilities and related infrastructure via a public private partnership. Given the regulatory restrictions that ban private participation in the ownership of the airside facilities, one of the possible options is a Master Concession Agreement that combines two different projects, one for the airside facilities (O&M) and the other for landside facilities (BOOT).

3. It has been estimated that the development costs for the new terminal and related infrastructure will be around Rubles 4,500 million (EUR 130 million). In addition around Rubles 2,750 million (EUR 80 million) are estimated for the airside. These figures are estimates based on the 2001-2002 Master Plan developed by the Design Institute, Gipro NII Aviaprom, for KIA expansion.

Kazan International Airport Economics

4. For more information on the KIA Airport Expansion project and private sector participation options currently under consideration, please refer to attachment 1 (“KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008, World Bank”).

Defining the Transaction

5. Since federal regulations prevent private ownership of airside facilities, several project structures are being considered. The principal one would work under a 25 to 30 year single Master Concession Agreement (MCA): (a) a build-own-operate-transfer (BOOT) scheme for the landside facilities (i.e., passenger and cargo terminals and related infrastructure), and (b) a Operation & Maintenance (O&M) scheme for the airside facilities (i.e., runway, taxiways and apron) (for ease of reference the term PPP agreement will be used here to refer to all the agreements and legal documents that will need to be developed). The transaction is defined as the successful bidding of the MCA by an experienced bidder (consortium) ensuring optimization of the bid award criteria (to be defined).

Technical Assistance Team
6. The Government of Tatarstan ("executing agency for the project") is contracting the services of the following advisors as part of the technical assistance team: (i) financial advisors, (ii) legal advisors, (iii) traffic consultants, and (iv) consultant engineer/technical advisors. The technical assistance team will work closely with KIA and the Government in the proposed airport expansion project.

E. Objective and Scope of the Assignment

7. The objective of the assignment is to provide the technical and the financial teams with a most reliable demand traffic forecast for the Kazan International Airport with a horizon of 30 years. The demand forecast will be a key driver for the financial analysis of the project as well as for the technical advisors in the design of the airport capacity throughout the entire concession period.

Scope of the Assignment

Phase I: Passenger traffic forecast

(a) Review of all studies undertaken until now

8. The consultant will review the previous traffic forecasts previously carried out. The forecast analyst will be required to provide an independent evaluation of this particular study.

(b) Market analysis

9. This analysis will have to be based on current passenger demand on a market per market basis, considering origin/destination, purpose of travel, travelling class, etc. This task will involve interviews with major airlines, tour operators, government officials, hotels and consultation on secondary sources (e.g. statistics bureau). For long term forecasting (30 years), the analysis will look into airline trends, government underlying policy and future trends (e.g. liberalization, role of regional hubs such as Moscow and St. Petersburg), changes in aircraft sizes (fleets development), evolution of the industry in general (e.g. low cost carriers, charters) and the introduction of new technologies (in airport, airlines and air traffic control management).

(c) Strategy for Route Development

10. The immigration rules make it necessary for passengers to travel through Moscow, inhibiting development of international links out of Kazan. The outbound passenger traffic from Kazan can only travel to countries with the policy of ‘visa at the port of entry’. This restrictive policy is limiting overall traffic connectivity. Associated high costs and hotel sponsorship requirements with risks of penalties, among others, complicate the process of trip planning and seriously affecting the competitiveness of Kazan as a tourist destination in northern Europe. The process is not only costly and risky, but also time consuming, dissuading travellers that do not plan their holidays with sufficient time, or that are not willing to bear the risk. These obstacles may also discourage organizers of congresses, fairs and international events alike.

11. Aviation policies and current air service agreements are still restricting access into Russia, including the international operations of European Low Cost Carriers (LCC). The regulatory conditions in the domestic market are moving slowly towards the proliferation of local LCC operating domestic routes.

12. Also relevant for KIA development is the role and position of Tatarstan Airlines. The airline enjoys a protective environment where competition is limited by policies aimed at restricting the capacity offered by other airlines.
13. Addressing all these elements, the consultant will prepare a strategic plan for route
development that will include the proposal of necessary policy changes (domestic
policies, air services agreements, etc.), including the generation of new
origins/destinations, the entry of new carriers and the development of specific markets.

14. The strategy will include the formulation of policy recommendations including (but not
limited to) the creation of conditions that could facilitate the development of Kazan as a
sub-regional hub by a local carrier, changes in immigration procedures that may affect
traffic (such as the implementation of visas on arrival, transit visas and short term visas),
the promotion of Kazan as a tourist destination, the entrance of new carriers including
LCC operating international routes from Europe, regulatory modifications facilitating the
operation of LCC within the Russian domestic market, policies design to facilitate the
development of hotel capacity in the city, etc.

15. In addition to the formulation of the recommendations, the impact of their successful
implementation will be quantified and considered in the passenger forecast, as
individualized scenarios in the “what-if analysis”.

(d) Econometric modelling

16. The consultant will carry out an econometric modelling and regression analysis to
identify those drivers and coefficients that best explain the historic evolution and traffic
patterns of Kazan International Airport.

17. The consultant is expected to combine an econometric based methodology with market
analysis observations and the prospects derived from the route development strategy.

(e) “What-if analysis”

18. A series of factors affecting the future prospects of traffic at KIA will be individualized
for specific sensitivity analysis of the model. A series of alternative traffic projections
will be produced based on the possibility of occurrence of a series of several factors.

19. The “What-if analysis” should include, at least, the resulting impact of the possible
implementation of the following policy measures:

- impact on passenger forecast as a result on the implementation of visa on arrival
  at ports of entry, for tourists and transit passengers
- impact on policies promoting Kazan as a competing tourist, congress and event
  destination in Europe
- impact on the entrance of European LCCs
- impact on the development of local LCCs in the domestic market

20. This analysis will include the implementation of the route development strategy - Phase I,
(c) – as an additional “what-if scenario”.

(f) Final product Phase I

21. The final product will be a “high”, “low” and “most likely” scenario forecast for the
yearly throughput, including:

- international, domestic and connecting passengers
- international and domestic aircraft movements (including fleet mix projection for
  international and for domestic separately, passenger movements and full
  freighters)
international and domestic air cargo volumes

Phase II: Capacity requirements

22. As a derivative product from the traffic forecast, the consultant shall present the peak
time projected traffic volumes for the purposes of capacity planning.

(g) Final product Phase II:

- yearly peak month and busy day for passengers (differentiating international,
domestic and connecting), for the purpose of landside planning
- yearly peak month and busy day for aircraft movements, including a “design day
schedule” (considering fleet mix, and for passenger and full freighter
movements), for the purpose of apron capacity (and boarding bridge stands)

Deliverables

23. The consultant will present a report for the 30 year traffic forecast, along with the
guidelines set above. In addition, all models used for projection including assumptions
and outputs will be considered a deliverable (to be presented in an Excel form). All the
methodology used including the forecasting model, with documented support of
assumptions and field work will also be provided.

F. Structure of the Proposal

24. The Traffic Advisor, as part of their deliverables, will be required to present two
proposals, which will include the following details:

(a) Technical proposal

- Scope of work (along the lines of the outline contained in this document)
- Project team (experience in aviation market analysis and forecasting, including
CV)
- Institutional experience with similar projects in the air transport sector
- Staff time (providing detailed staff allocation time to this project).
- Proposed work schedule

(b) Financial proposal. The financial proposal should be a fixed budget (lump sum), detailing
the following:

- Staff time cost estimates (time and cost per consultant)
- Travel costs
- Other expenses
- Total cost (including all above)

D. Selection Criteria

The Selection Committee (“executing agency as the secretary”) will evaluate the proposals in two
phases:

1) Technical evaluation:

Criteria for the evaluation of technical proposals are:
(i) Specific experience of the Advisors relevant to the assignment: 10
(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference including:
   (c) technical approach and methodology;
   (d) work plan;
   (c) organization and staffing 25
(iii) Key professional staff qualifications and competence for the assignment: 50
     The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights:
     1) General qualifications 30%
     2) Adequacy for the assignment 50%
     3) Experience in region and language 20%
     Total weight: 100%
(iv) Local presence in Russia 10
(v) Experience in Russia 5
     Total points for the four criteria: 100
The minimum technical score required to pass is: 70 Points

2) Financial evaluation. The formula for determining the financial scores is the following:
   \[ S_f = 100 \times \frac{F_m}{F} \]
   in which \( S_f \) is the financial score for the advisor’s financial proposal, \( F_m \) is the lowest price submitted by all potential advisors, and \( F \) is the price of the proposal under consideration.

   The weights given to the Technical and Financial Proposals are:
   \[ T \text{ (technical)} = 0.6, \text{ and} \]
   \[ P \text{ (price)} = 0.4 \]
Annex 5
Draft TOR for Financial Advisor

G. Background
1. Kazan International Airport (KIA) is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow's three airports. With respect to the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with levels of service that need improving.

2. Kazan, therefore, needs to upgrade and expand its airport infrastructure to keep pace with traffic growth and improve service levels. The Government recognises that without a strong local carrier, and given the proximity of KIA to the country’s main hub system (comprised of the three largest airports), there are limited possibilities to develop a hub. Therefore, the airport development strategy revolves around catering for and developing origin and destination (O&D) traffic. The Government is exploring options to develop the airport facilities and related infrastructure via a public private partnership. Given the regulatory restrictions that ban private participation in the ownership of the airside facilities, one of the possible options is a Master Concession Agreement that combines two different projects, one for the airside facilities (O&M) and the other for landside facilities (BOOT).

3. It has been estimated that the development costs for the new terminal and related infrastructure will be around Rubles 4,500 million (EUR 130 million). In addition around Rubles 2,750 million (EUR 80 million) are estimated for the airside. These figures are estimates based on the 2001-2002 Master Plan developed by the Design Institute, Gipro NII Aviaprom, for KIA expansion.

Pulkovo Airport Economics
4. For more information on the KIA Airport Expansion project and private sector participation options currently under consideration, please refer to attachment 1 (“KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008, World Bank”).

5. Defining the Transaction
6. Since federal regulations prevent private ownership of airside facilities, several project structures are being considered. The principal one would work under a 25 to 30 year single Master Concession Agreement (MCA): (a) a build-own-operate-transfer (BOOT) scheme for the landside facilities (i.e., passenger and cargo terminals and related infrastructure), and (b) a Operation & Maintenance (O&M) scheme for the airside facilities (i.e., runway, taxiways and apron) (for ease of reference the term PPP agreement will be used here to refer to all the agreements and legal documents that will need to be developed). The transaction is defined as the successful bidding of the MCA by an experienced bidder (consortium) ensuring optimization of the bid award criteria (to be defined).

7. Technical Assistance Team
8. The Government of Tatarstan (“executing agency for the project”) is contracting the services of the following advisors as part of the technical assistance team: (i) financial advisors, (ii) legal advisors, (iii) traffic consultants, and (iv) consultant engineer/technical advisors. The technical assistance team will work closely with KIA and the Government in the proposed airport expansion project.

H. Objective and Scope of the Assignment

9. The objective of the assignment is to ensure the successful development of the KIA Expansion Project as a Public-Private Partnership. The task will involve (a) designing a transaction including but not limited to reviewing the information available to date, designing the financing and commercial structure, conducting financial analysis of the project, developing a financial model, structuring a feasible transaction, conducting scenario analysis and presenting various outputs/options in relation to key risks related to the project and (b) implementing the transaction, including but not limited to the marketing of the transaction, the management of the prequalification and bidding process and support to the Government for the negotiations of the project to financial close. It is anticipated that the process will include international bidding that will lead to a winning bidder assuming responsibility for a long term MCA or similar commercial arrangement for Kazan International Airport.

Scope of the Assignment

8. Generally, the Financial Advisor will provide all relevant assistance to ensure the design of the transaction, its approval by the relevant authorities and stakeholders, and the tendering and implementation of the transaction until the transaction has reached financial close.

9. Where and as required, the Financial Advisor will be required to liaise with and disclose information to other advisors involved in the transaction including, but not limited to the legal advisor and technical advisor.

10. The scope will include but not be limited to

Phase I: Support to the Government during the preparation of the project and the prequalification stage of the PPP transaction

During Phase I, the Financial Advisor will provide commercial, strategic and financial advice and guidance to the Government of Tatarstan and its advisors on the items listed below.

(a) Assessment of feasibility and technical design documentation of the project

10. The financial advisor will closely review the Master Plan and the World Bank report “KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008” with the view of determining the optimum form of transaction to implement the project. The financial advisor will also be required to do an independent evaluation of the documentation prepared to date and the information available. The Financial Advisor will perform a review encompassing verification of the cost estimate of the proposed capital investment; review of the current traffic data and projections; and analyze the results of the various surveys carried out in the recent past to assess potential users’ willingness to pay for using KIA with the view of determining (i) whether the
current documentation is conducive to launching a transaction, and (ii) identify any gaps in the information available to date.

(b) Financial Model

The Financial Advisor will build a financial model, taking into account all the findings from the technical, legal and financial due diligence. The aim of such financial model will be to: (i) provide a solid basis on which past cash flows for the airport are presented, (ii) present likely future cash flow for the airport (under a range of sensitivities to be determined with the client), (iii) test the financial feasibility of the proposed transaction structures, and (iv) evaluate the financial impact of such structures on the Government and its finances. In a later stage once the transaction has tendered, it is expected that the financial model may be shared with relevant parties (investors and or financiers).

(c) Additional Advice

The Financial Advisor shall provide support in procuring specialist advice as required should additional advice be identified as required for implementing the transaction.

(d) Option Report

The Financial Advisor shall prepare an Option Report that will (i) present a preliminary risk matrix together with proposal for risk sharing for the project, (ii) present a detailed timeline for the implementation of the project, (iii) present the different options being considered for implementation of the project (structure of transaction and implementation methods) and present pros and cons for each options). Where deemed appropriate by the Government, the Financial Advisor will present relevant examples of transactions where proposed solutions have been implemented. Once the Option Report has been approved, the Financial Advisor will prepare a detailed risk allocation of the project, in coordination with other the advisors, which will form the framework for the relevant contractual documentation for the transaction.

(e) Approvals

The Financial Advisor shall, through reports, presentations and supporting written recommendations, support as requested the Tatarstan Government in its presentation to and its effort to secure relevant approval from the federal Government.

(f) Marketing of the Transaction

The Financial Advisor will have the primary responsibility for promoting the transaction. The Advisor will specifically be required to: (i) develop a marketing strategy for the transaction including a list of activities to be undertaken and a detailed timeline; (ii) prepare the Information Memorandum with the Client; (iii) identify a long list of potential parties that might be interested in bidding for the transaction and (iv) as requested contact such parties to raise their interest in the project (this might include but not be limited to the production of teasers and other relevant marketing documents) (v) if required by the Government, organize a road show / transaction launch seminar or other relevant marketing promotions and events, and (vi) follow up with interested bidders to ensure successful outcome of the pre-qualification, including providing detailed logs of information contact and feedback from investors.

If required the Financial Advisor will be responsible for producing a full Information Memorandum which may include (but not be limited to) past information in relation to the airport, information in relation to the regulatory framework of the project.
explanation on the planned development and its technical commercial, financial and technical scope and project cash flows going forward

(g) Pre-qualification Documents

The Financial Advisor will review documents drafted by the legal and technical advisors and take responsibility for amending and finalising such project documentation as required. The Financial Advisor will support the Client and its’ advisors: (i) to develop operational and financial criteria to be used in judging the suitability of prospective bidders, (ii) identifying the ideal profile of a strategic investor; and (iii) to conduct a fair and transparent pre-qualification process. The financial advisor will liaise closely with the legal advisor to ensure the prequalification methods is fully in compliance with the relevant laws.

(h) Pre-qualification

The Financial Advisor will help the Client to answer inquiries from interested investors as required, will develop if required a methodology and supporting documentation for the evaluation of the interested investors and provide, if required, an evaluation of the interested investors applications

(i) Expressions of interest from potential financiers

To the extent deemed relevant by the Government, the Financial Advisor will ensure that prior to the initiation of the bidding process, local and international financial institutions are made aware of the proposed project, its proposed financial design and structure, and if necessary financial simulation model and scenario analysis. To the extent deemed relevant by the Government, the Financial Advisor will help procure letters of interest for the long term financing of the project.

Phase II: Support the Government of Tatarstan during the bidding process

During the Phase II the Financial Advisor will have the primary responsibility for the completion of the following deliverables:

(a) Facilitating the Bidders’ due diligence including preparation of a data room

The financial advisor will then assist the Client in defining the procedures for the prequalified bidders to carry out their due diligence of the proposed project. In addition, in conjunction with the other advisors and the Government/KIA, the Financial Advisor will be responsible for preparing a Data Room and the procedures for access to and use of the Data Room.

(b) Bidding documents

The Financial Advisor, jointly with other advisors, will prepare the relevant bidding documentation. Although it is understood that the Financial Advisor will not be ultimately responsible for the drafting of the project documentation, it will provide significant inputs in relation to risk allocations, international PPP best practice and proposed transaction structuring issues that are of financial and commercial relevance. This will include but not limited to: (i) a full review and comment on the proposed project documentation, (ii) support in the preparation of the bidding instructions, (iii) support in preparation of all contractual documentation necessary to be entered into by the winning bidders, (iv) support in the preparation of all other contracts that the Government or KIA might be required to enter into as part of the implementation of the transaction, and (v) the preparation of transparent bid evaluation criteria and a methodology for bid evaluation. In agreement with the Government, the Advisor will
take the lead in the preparation of the documentation that is of commercial and financial relevance

The Financial advisor will support the Government as requested to organize, launch and follow a public competitive bidding process to award the MCA to a strategic investor. This will include support in the management of the Data Room, if necessary, as well as any other necessary steps in the bidding process.

(c) Bidders’ review and comments

As appropriate, the Financial Advisor will review comments and queries provided by bidders in a timely manner and will advise the Client on proper actions to minimize the scope of post-bid award negotiations in relation to the project documentation. It will also advise the Client whether these comments and queries would influence the terms of the proposed PPP scheme. The Advisor will recommend appropriate revisions to the project documents based on the comments and queries received and will assist in the preparation of any relevant change to the documentation.

(b) (d) Contact with investors during bidding process

The Financial Advisor will: (i) maintain suitable contacts with pre-qualified bidders during the bid preparation period; (ii) organise as relevant a pre-bid conference and meetings with the Government/KIA; and (iii) if relevant, assist in competitive negotiations/discussions with pre-qualified bidders.

(e) Bid Evaluation Methodology

The Financial Advisor will be responsible for the development of a bid evaluation methodology for the bids to be submitted by bidders. Such evaluation methodology will be presented in written form, discussed with the Client and if necessary the Financial Advisor will make relevant amendments to such methodology.

Phase III: Support the Government of St. Petersburg during the bid award and financial close of the transaction.

Financial Advisor, along with the legal and technical advisor, will have the primary responsibility for the completion of the deliverables for each activity set out below:

(a) Bid evaluation

The basis of the evaluation will have been previously established and comprise agreed, transparent selection criteria. The Financial Advisor will assist the Client in analyzing bids including checks of the compliance of the bidders and their applications with the criteria set forth in the tender documentation, and evaluation of the bids.

(b) Transaction closure

The Financial Advisor will also be required to provide assistance to the Government of Tatarstan for (i) conducting all relevant negotiations with the selected preferred bidder (it is expected that the Financial Advisor will be present at all meetings when requested by the Client), and (ii) finalising and executing the relevant project documentation.

I. Structure of the Proposal

The Financial Advisor, as part of its deliverables, will be required to present two proposals, which will include the following details:

(a) Technical proposal
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

Approach to implement the scope of work (covering the scope outlined above) including: (i) an explanation of key issues relevant to the transaction, (ii) approach to implementation,

Project team, with clear identification of the role of team members, their proposed % time spent on the project (by Phase) and their experience in (i) airport transactions and (ii) PPP transactions in infrastructure, with an indication, for each transaction of the role of the person, scope of the mandate, and status of the transaction (closed, aborted, in progress), and their language skills

Institutional experience with financing PPP projects in the infrastructure sectors, including: (i) experience in Government side mandates for airport transactions (specifying in each case role and whether the transaction closed, (ii) experience in undertaking private sector mandates in the airport sector (specifying in each case the role and whether the transaction closed) and (iii) other relevant infrastructure projects

Staff time. Please provide detailed allocation of staff time to this project.

Proposed timetable for the implementation of the project

When developing the technical proposal please see attachment 2 (suggested timetable).

(b) Financial proposal. The financial proposal should be structured into two components:

- Fixed monthly retainer. This monthly retainer will be paid monthly to the financial advisor and is intended to cover a portion of the advisors costs and is required to be expressed in the form of a single monthly [euro or ruble denominated] fee. This fee will be paid monthly unless special circumstances lead to temporary suspension of the contract

- Flat Success Fee (net of retainers paid): upon the successful conclusion of the transaction (to be defined in the contract), a lump sum success fee will be paid to the financial advisor. The sum of retainers paid will be deducted from the success fee

Separately, the financial advisors will be able to claim reimbursable expenses on the project for (i) airline tickets (at economy fare rates) and (ii) hotel accommodations (within an approved list of hotels) to the extent that the travels have been approved in advance with the client. All other expenses, included but not limited to telecom costs, taxi, printing and photocopies, meals etc. will not be subject to reimbursement.

D. Selection Criteria

The Advisor Selection Committee (“executing agency as the secretary”) will evaluate the proposals in two phases:

1) Technical evaluation:

Criteria for the evaluation of technical proposals are:

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<th>Points</th>
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<td>(i) Specific experience of the Advisors relevant to the assignment:</td>
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<td>(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference including:</td>
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(e) technical approach and methodology;
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

(f) work plan;  
(c) organization and staffing  \[25\]

(iii) Key professional staff qualifications and competence for the assignment: 50

The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights:

1) General qualifications  \[30\%\]
2) Adequacy for the assignment  \[50\%\]
3) Experience in region and language  \[20\%\]

Total weight: 100%

(iv) Local presence in Russia  \[10\]
(v) Experience in Russia  \[5\]

Total points for the four criteria: \[100\]

The minimum technical score required to pass is: 70 Points

2) Financial evaluation. The formula for determining the financial scores is the following:

\[S_f = 100 \times \frac{F_m}{F},\] in which \(S_f\) is the financial score for the advisor’s financial proposal, \(F_m\) is the lowest price submitted by all potential advisors, and \(F\) is the price of the proposal under consideration.

The weights given to the Technical and Financial Proposals are:

\(T \) (technical) = 0.6, and  
\(P \) (price) = 0.4

Government of Tatarstan
Kazan
June 2008
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

ANNEX 6
Draft TOR for Legal Advisor

J. Background

1. Kazan International Airport (KIA) is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow’s three airports. With respect to the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with levels of service that need improving.

2. Kazan, therefore, needs to upgrade and expand its airport infrastructure to keep pace with traffic growth and improve service levels. The Government recognises that without a strong local carrier, and given the proximity of KIA to the country’s main hub system (comprised of the three largest airports), there are limited possibilities to develop a hub. Therefore, the airport development strategy revolves around catering for and developing origin and destination (O&D) traffic. The Government is exploring options to develop the airport facilities and related infrastructure via a public private partnership. Given the regulatory restrictions that ban private participation in the ownership of the airside facilities, one of the possible options is a Master Concession Agreement that combines two different projects, one for the airside facilities (O&M) and the other for landside facilities (BOOT).

3. It has been estimated that the development costs for the new terminal and related infrastructure will be around Rubles 4,500 million (EUR 130 million). In addition around Rubles 2,750 million (EUR 80 million) are estimated for the airside. These figures are estimates based on the 2001-2002 Master Plan developed by the Design Institute, Gipro NII Aviaprom, for KIA expansion.

Kazan Airport Economics

3. For more information on the KIA Airport Expansion project and private sector participation options currently under consideration, please refer to Annex 1 (“KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008, World Bank”).

Defining the Transaction

4. Since federal regulations that limits private ownership of airside facilities, two different schemes are being considered under a single 25 to 30 years Master Concession Agreement (MCA) that will provide for design, construction and operation of (a) the landside facilities (i.e., passenger and cargo terminals and related infrastructure), and (b) the airside facilities (i.e., runway, taxiways and apron). The transaction is defined as the successful bidding of the MCA by an experienced bidder (consortium) ensuring optimization of the bid award criteria (to be defined). The report attached as Annex B sets out the legal advice provided to date on the structure to be adopted. Though the legal adviser will be free to provide alternate advice if it disagrees with that set out in the report.
5. Preliminary calculations indicate that the BOOT is financeable on a non-recourse basis, but only with significant government financial support. Estimates for a 2.5 million passenger/year terminal seem to indicate that the BOOT (basic design) for the new terminal will start operations with a base annual revenue of Rubles 770 million in 2014, but with upside for commercial revenues. The terminal may need an expansion fee in order to make the financing possible. This increase or additional airport development fee (used in the past in several airport cases) will still leave KIA airport fees competitive with other regional airports.

Technical Assistance Team

6. The Government of Tatarstan (“executing agency for the project”) is contracting the services of the following advisors as part of the technical assistance team: (i) financial advisors, (ii) legal advisors, (iii) traffic consultants, and (iv) consultant engineer/technical advisors. The technical assistance team will work closely with KIA and the Government in the proposed airport expansion project.

Objective and Scope of the Assignment

7. The objective of the assignment is to ensure, in coordination with the financial and technical advisers, the successful procurement of private investors for the KIA Expansion Project, through to financial close, using good international practice in the context of Russian law. The legal advisors will be tasked to develop and finalize key documents such as the MCA, other related Agreements and annexes, legal and regulatory texts and Bidding Documents for the Airport project. The legal advisors will draft or revise, review and negotiate and help in the preparation of all other project documents related to project development. The advisors will also assist the Government of Tatarstan during the pre-qualification phase, bidding process and financial close. This is to ensure that the project agreements are of high quality and as per market standards, which, in turn, will lead to a fair and equitable project. Annex C provides a more detailed description of the scope of services to be required of the legal adviser.

Scope of the Assignment

Due to the demands of a tight timetable, a legal analysis of private sector participation options has already been completed by external legal advisors (see the report at Annex B). This analysis has determined the use of a Master Concession Agreement under Russian law as the most suitable scheme. A draft of the legal assessment is included as Annex B to these terms of reference.

Phase I: Review of legal analysis on PSP Options and Draft Pre-Qualification Documents.

(a) Review of the legal analysis of the PSP Options for the KIA Expansion as well as the initial draft for pre-qualification documents. The legal advisor will review of both these documents making sure that all the key issues regarding private sector participation in this transaction have been addressed and are adequately covered in the legal analysis and draft pre-qualification documents.

Phase II: Support to the Government of Tatarstan during the prequalification stage of the PPP transaction

During Phase II, the legal advisor will provide strategic advice and guidance to the Government of Tatarstan and its advisors on the items listed below. In particular, the legal advisor will have the responsibility for the completion of the deliverables indicated below for each activity.

(a) Marketing of the Transaction
The legal advisor will assist with marketing efforts, including road shows and project presentations, and in this context will review language and text of presentations and marketing material for the transaction involved with promoting the transaction and ensure their compliance with legal standards. The advisor will be required to answer queries to help potential stakeholders better understand the project. The legal advisor will also participate in meeting with potential investors and where required will make presentations.

(b) Pre-qualification and tender process and documents

The legal advisor will have primary responsibilities for advising on the legal structure of the procurement process and the preparation of the pre-qualification and bidding documents, including the PPP/concession agreement and any other commercial contracts or legal/regulatory documents. The legal advisor will support the Government of Tatarstan, KIA, and the technical assistance team (the Project Team) in ensuring the compliance of pre-qualification and tender documents with Russian legal standards and international good practice.

(c) Pre-qualification

The legal advisor will support the Project Team to develop operational and legal criteria to be used in judging the suitability of prospective bidders, assist in providing clarifications and written responses to bidders inquiries and assist the Government of Tatarstan in conducting a fair and transparent pre-qualification process.

Phase III: Support the Government of Tatarstan during the bidding process

The legal advisor, along with the financial and technical advisors, will have the primary responsibility for the completion of:

(a) Competitive bidding process

Preparation of bid evaluation criteria and methodology; organizing a public competitive bidding process to award the project to the best bid, as well as any other necessary steps in the bidding process.

(b) Bidders’ review and comments

Advising on the process post-bid to reduce the time needed to achieve financial close and the number of issues that remain outstanding after the bid award, to maintain the government’s negotiating position and identify in advance any outstanding issues that will require resolution, before or after financial close.

Phase IV: Support the Government of Tatarstan during the bid award and financial close of the transaction.

The legal advisor, along with the financial and technical advisors, will have the primary responsibility for the completion of the items deliverables for each activity:

(a) Bid evaluation

Bid analysis, including checks of the compliance of the bidders and their applications with the criteria set forth in the tender documentation, and evaluation of the bids.

(b) Transaction closure

The legal advisor will also be required to provide assistance to the Government of Tatarstan for negotiating, preparing and executing the concession contract, shareholders agreement(s) and other documents necessary for the satisfactory closing of the transactions.

K. Proposal Structure
Those wishing to apply for the role as the legal advisor will be required to present two proposals, which will include the following details:

(a) **Technical proposal**

- Scope of work: understanding of the tasks along the lines of the outline in this document and an indication of what issues would need to be addressed and how those issues would be addressed.
- Project team: the team that will be made available for this project – the adviser will need to warrant their availability - and their individual experience in similar transactions in this sector and other infrastructure areas)
- Institutional experience: with PPP projects in the infrastructure sectors
- Staff time: Please provide detailed staff allocation time to this project.
- Proposed timetable

When developing the technical proposal please see Annex D (suggested timetable).

(b) **Financial proposal.** The financial proposal should be structured into two components:

*Fixed budget*

- Staff time cost estimates
- Travel costs
- Other expenses

*Risk sharing*

- Budgeting during different project phases
- Sharing of risk of project progress

**D. Selection Criteria**

The Selection Committee (“executing agency as the secretary”) will evaluate the proposals in two phases:

1) **Technical evaluation:**

Criteria for the evaluation of technical proposals are:

<table>
<thead>
<tr>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Specific experience of the Advisors relevant to the assignment: 10</td>
</tr>
<tr>
<td>(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference including:</td>
</tr>
<tr>
<td>(g) technical approach and methodology;</td>
</tr>
<tr>
<td>(h) work plan;</td>
</tr>
<tr>
<td>(c) organization and staffing 25</td>
</tr>
<tr>
<td>(iii) Key professional staff qualifications and competence for the assignment: 50</td>
</tr>
</tbody>
</table>

The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights:

1) General qualifications 30%
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

2) Adequacy for the assignment 50%
3) Experience in region and language 20%

Total weight: 100%

(iv) Local presence in Russia 10
(v) Experience in Russia 5

Total points for the four criteria: 100

The minimum technical score required to pass is: 70 Points

2) Financial evaluation. The formula for determining the financial scores is the following:

\[ S_f = 100 \times \frac{F_m}{F} \]

Where \( S_f \) is the financial score for the advisor’s financial proposal, \( F_m \) is the lowest price submitted by all potential advisors, and \( F \) is the price of the proposal under consideration.

The weights given to the Technical and Financial Proposals are:

\( T \) (technical) = 0.6, and

\( P \) (price) = 0.4

Government of Tatarstan
(a) Kazan
(b) June 2008
Annex A

Annex B

Legal Advice on Structure for the Project
Terms of Reference for Legal Advisers

The Legal Adviser will provide Russian law and international good practice advice on project design, bidding through to financial close, coordinating with and responding to the requirements of the Project Team, including without limitation

1. Project design
   - Review of risk allocation regime
   - Interface with tax and insurance advisers
   - Licensing, permitting, land, land acquisition and other legal risks
   - Other contractual and commercial relationships in the sector or related to the sector and how those relationships will interface with the Project.
   - Capital grant and other payment flows from the Government

2. Tender process
   - Applicable procurement requirements at Tatarstan and Federal level
   - Advice on mechanisms to maximize competition while avoiding unrealistic bids and project vulnerability from overly aggressive bidding.
   - Information to be provided by the Government to bidders
   - Designing pre-qualification procedure
   - Drafting pre-qualification documentation
   - Assisting with the implementation of the pre-qualification procedure
   - Responding to requests for clarification and advice on comments or requests for changes to the pre-qualification procedure
   - Assisting with the assessment of pre-qualification applications
   - Designing tender procedure
   - Assisting the Government in its assessment of different key aspects of the tender procedure, for example deciding whether and to what extent to accept variant bids and non-conforming bids, how many bidders must bid before the process is valid, what rules to set in relation to the assessment of bids (scoring regimes, timing of bids and rejecting of excessively low bids) and how to maximize competition without sacrificing quality of bids.
   - Drafting tender documentation
   - Drafting the Concession Agreement (CA), land lease agreement and any other required legal arrangements or agreements
   - Proposing any legislative, administrative or regulatory changes that need to be made to implement the proposed legal/commercial structure
   - Assisting with the implementation of the tender procedure, including responding to requests for clarification and advice on comments or requests for changes to
the pre-qualification procedure, involvement in bidder conferences and responding to communications with bidders to manage Government liabilities.

- Assisting with the assessment of bids, variant bids and their viability.
- Assisting with process for selection of preferred bidder and the relationship with second and third place bidders, including managing bid bonds and on-going discussions to prepare for the eventual withdrawal of the preferred bidder.
- Negotiations with the preferred bidder to reach agreement on outstanding elements of the CA.

3. **Financial close**

- Reviewing proposed sub-contracts, in particular with the construction contractor and operator, for Grantor approval.
- Advising on proposed changes to the agreed sub-contracts.
- Review of preferred bidder satisfaction of the conditions precedent to the CA.
- Negotiations with lenders, including review of financing agreement, to reach financial close.
- Legal opinion that transaction is binding on its terms.
- Legal opinion on security and financial management structure.
- Legal opinion on revenue structure and current regulatory mechanism.
Annex D

Proposed Project Timetable
ANNEX 7

Draft TOR for Project Environment and Social Impact Assessment (ESIA)

L. Background

1. Kazan International Airport (KIA) is a medium size airport in the context of Russian air transport markets with a total passenger per year volume of 500,000 passengers, and 3,000 tons of mobilized cargo. About 80% of the flight capacity is allocated to domestic routes, of which 58% is to Moscow’s three airports. With respect to the domestic air traffic, Kazan has been experiencing high growth rates (30% per year in passenger, and 35% per year in cargo during the last two years). Airport infrastructure is in relatively poor condition. The landside infrastructure (i.e., passenger terminal) is operating beyond capacity, under tough conditions for passengers with levels of service that need improving.

2. Kazan, therefore, needs to upgrade and expand its airport infrastructure to keep pace with traffic growth and improve service levels. The Government recognises that without a strong local carrier, and given the proximity of KIA to the country’s main hub system (comprised of the three largest airports); there are limited possibilities to develop a hub. Therefore, the airport development strategy revolves around catering for and developing origin and destination (O&D) traffic. The Government is exploring options to develop the airport facilities and related infrastructure via a public private partnership. Given the regulatory restrictions that ban private participation in the ownership of the airside facilities, one of the possible options is a Master Concession Agreement that combines two different projects, one for the airside facilities (O&M) and the other for landside facilities (BOOT).

3. It has been estimated that the development costs for the new terminal and related infrastructure will be around Rubles 4,500 million (EUR 130 million). In addition around Rubles 2,750 million (EUR 80 million) are estimated for the airside. These figures are estimates based on the 2001-2002 Master Plan developed by the Design Institute, Gipro NII Aviaprom, for KIA expansion.

Kazan International Airport Economics

4. For more information on the KIA Airport Expansion project and private sector participation options currently under consideration, please refer to attachment 1 (“KIA Airport Business Development Strategy and Private Sector Participation (PSP) Options, June 2008, World Bank”).

Defining the Transaction

5. Since federal regulations prevent private ownership of airside facilities, several project structures are being considered. The principal one would work under a 25 to 30 year single Master Concession Agreement (MCA): (a) a build-own-operate-transfer (BOOT) scheme for the landside facilities (i.e., passenger and cargo terminals and related infrastructure), and (b) a Operation & Maintenance (O&M) scheme for the airside facilities (i.e., runway, taxiways and apron) (for ease of reference the term PPP agreement will be used here to refer to all the agreements and legal documents that will need to be developed). The transaction is defined as the successful bidding of the MCA by an experienced bidder (consortium) ensuring optimization of the bid award criteria (to be defined).
M. Objectives.

6. The current planning state of the project is defined by the project Master Plan developed by XXX dated [date]. KIA plans to complete the prequalification for a O&M/BOOT type of concession under the Master Concession Agreement (MCA) in XXX 200X and finalize the tender process by the end of 200X, entering into contract negotiations with the winning bidder in XXX 200X. A previous master plan study was completed in 2001-2002 by the Design Institute, Gipro NII Aviaprom.

7. In view of the timetable set for the tender process for the MCA contract it is crucial to undertake a feasibility-study-level ESIA, corresponding to the current planning stage, as soon as possible, but in any case before the launch of the tender process. The ESIA should address environmental and social issues in a manner as described in Section E, albeit in a general manner. The ESIA should take into account the preliminary stage of design, which leaves a substantial degree of freedom open to the concessionaire to develop technical options within a given framework.

8. The overall objectives of the assignment are:

- To make available for the tender process a feasibility-study-level ESIA and the corresponding comments, officially filed requirements and approvals of environmental authorities on federal and state/city level. These will be crucial information for any bidder in assessing potential risks and liabilities associated with environmental and social issues.

- To conduct early consultations with affected stakeholders, especially the local residential population affected by present and future airport operation. This can be another key constraining factor for design, construction and operation. A major information and consultation campaign for the public needs to be completed and diligently documented before the tender is issued. Only a thorough consultation process in which all sensitive issues and potential friction are at least in principle resolved, gives a sufficient level of certainty for the concessionaires design and planning process.

- To initiate and lay out a process for a continued dialogue with environmental authorities and obtain their in principle endorsement of the general environmental approach, which will hedge regulatory risks for potential bidders, increase level of investor confidence and ultimately the chance for a higher number of interested investors.

- To mitigate the risk of undue delays during project implementation, e.g. by environmental authorities protracting or withholding approvals, or due to protests and lawsuits of affected stakeholders not sufficiently informed, consulted and / or compensated in the pre-tender phase.

- The ESIA will also, as important preparatory step, clarify the legal and administrative framework of the project and establish relationships and dialogues with the relevant authorities.

The Consultant should be aware that the time constraints will likely not permit the collection of baseline data (such as meteorology, noise measurements, analyses of air, water, groundwater and soil quality, demographic data, etc.) and that the identification and utilization of reliable data sources will be a key component of the Assignment.
N. EA Requirements/Regulations.

9. To obtain a construction permit from the public oversight authorities an environmental review stage is mandatory. The provisions of the national legislation are laid out in the Federal Law on Environmental Reviews (1995); Federal Law on Environmental Protection (1991) and Ordinance on the Environmental Impact Assessment in the Russian Federation (1994), and are generally rigorously applied by project owners and enforced by the authorities. The Russian OBOC process is characterized by high technical detail and would be expected to at least to a large extent fulfill IFI’s (e.g. the EBRD’s, IFC’s or the World Bank’s) environmental and social policies.

10. [For the purpose of scoping the environmental and social assessment it should be assumed by the Consultant that the project will fall under the highest (= most critical) environmental category “A” according to the World Bank’s classification system laid out on operational policy OP 4.01 (to be found on www.worldbank.org, navigate to topics/environment/operational and safeguard policies). This implies a full ESIA including the study of options, including the “no project option”, as well as a 2-stage disclosure procedure].

11. As financing for the project might be raised from private banks as well as IFIs (e.g. EBRD, IFC) the Consultant should be familiar with the Equator Principles and aware of the major IFIs respective safeguard policies.

12. The standards to be used for the assessment and evaluation of environmental parameters as well as health and safety standards shall be those of the Russian Federation. If not specified in Russian regulations internationally accepted standards developed under multilateral cooperation agreements shall be applied (e.g. World Health Organization [WHO], International Civil Aviation Organization [ICAO]).

O. Study Area and Likely Major Impacts

13. The project area should be subdivided into the following zones, which should be defined and delineated during an initial scoping phase of the Consultancy:

   (iv) core facilities, i.e. airport facilities within the airport’s cadastral boundaries/right of way (ROW), including runways, taxiways, aprons, cleared areas, ground handling and terminal buildings, other structures (tower, fire brigade, maintenance, storage) and infrastructure (fuel storage, distribution and disposal; heating/cooling facilities; deicing pad, equipment disposal and recycling; power supply; service roads; wastewater/storm water collection; drainage and treatment; solid waste management, removal and treatment, access and service roads; parking space for employees / passengers, bus or rail terminals);

   (v) areas where significant impacts are anticipated, such as approach and departing paths for landing and take off (LTO) impacted by noise and emissions from approaching and departing aircraft, or areas impacted by emissions from the core facilities (noise, exhaust gases, vapors from fuelling activities and fuel storage).

   (vi) Linked development and infrastructure such as existing and planned access roads, rail links parking facilities, commercial zones.

The impacts from the above zones should be analyzed and presented for both the construction and operation phases.

P. Scope of Work
Task 1. Description of Proposed Project:

14. From site visits and available documentation (maps, plans, drawings) the major existing components of the project as well as those to be constructed / dismantled should be described, including the facilities outlined in the section above (project location) and the planned physical changes under the project. These will include new structures as well as the (partial) demolition of existing facilities, civil works for runways modifications, new taxiways and aprons, new infrastructure linked to airport facilities, landscaping, green areas and environmental compensation measures.

15. The project description should include relevant temporary works or arrangements, such as re-routing of air traffic, accommodation and offices of Contractor’s / Engineer’s workforce; site clearance/earthworks, temporary storage of materials; generation of wastes and their disposal; scheduling of project activities;

16. As far as currently feasible the operational plan for the airport and its development with increasing capacity of passenger numbers, cargo and LTO cycles should be described. Key information on water and energy consumption, waste and hazardous substance management, storm- and wastewater management and maintenance activities should be included.

17. The Consultant should collect all existing and available environmental reports and documents, such as baseline studies, analytical studies of soil, water and air quality, periodic monitoring data, environmental approvals from environmental authorities and official statements. If there are studies relating to noise and air pollution from current operations available then the Consultant should get familiarized. Moreover, the KIA Master plan contains a chapter on environment, as well as other relevant technical information, which the Consultant should be knowledgeable on.

Task 2. Description of Existing Environmental Conditions

18. The Consultant will assemble and evaluate baseline data on the environment in the project area, assess and describe all relevant environmental characteristics of the project / study area and include information on any changes anticipated before the project commences.

   (a) Physical environment: geology (general description for overall study area); topography; soils; surface and ground water hydrology; identity and hydrological parameters of streams, lakes, or marine waters; receiving water quality.

   (b) Meteorology: wind patterns, monthly average temperatures, rainfall, snowfall and runoff characteristics; ambient air quality; extreme storm and precipitation events;

   (c) Biological environment: flora and fauna; rare or endangered species within or in areas adjacent to project-related development sites and ROW; sensitive habitats, including wetlands, parks or reserves in areas likely to be affected by construction, facility siting, emissions or waste / material disposal; aquatic communities in affected waters; significant natural habitats; species of commercial importance in terrestrial sites and receiving waters.

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22 It should be anticipated, that for some parameters (e.g. emissions, meteorology) the study area will be considerably wider than the project area.
(d) **Socio-cultural environment**: present and projected population in project / study areas; present land use/ownership; planned development activities and resulting need for (temporary) resettlement; community structure; present and projected employment by industrial category; distribution of income, goods and services; recreation; public health; long term impacts on quality of life and related compensation requirements; cultural properties; significant natural, cultural or historic sites; Presence of HIV/AIDS and other sexually transmitted diseases.

(e) **Past environmental liabilities (PEL)**: In addition consultants should take a stock of any PEL and review site history and past activities. This would include, but not be limited to (i) site description and site history, (ii) current activities, processes, size, buildings, facilities, (iii) environmentally relevant or hazardous activities undertaken since the site was a Greenfield, (iv) past environmental audits (eg. water supply, wastewater, chemicals and fuel storage, solid waste), (v) hazardous materials management, spill control and emergency planning and any past accidents and irregularities, (vi) soil and groundwater contaminations

The extent and quality of available data should be described, explaining significant information deficiencies and any uncertainties associated with conclusions, e.g. predictions of impacts. If necessary, TOR for studies to obtain the missing information shall be provided.

**Task 3. Legislative and Regulatory Considerations.**

19. In addition to the examples for environmental legislation provided in section 4 the Consultant shall make an inventory and shortly describe the applicable laws, regulations and standards of the Russian Federation as well as local environmental regulations, norms and standards, governing environmental aspects of construction activities and airport operation.

20. The Consultant should elaborate a detailed list of regulatory documents for (i) water quality and use, (ii) pollutant discharges to air, surface waters and land, (iii) health and safety of employees, residents and passengers, (iv) noise emissions, (v) protection of sensitive areas and endangered species, (vi) land management, siting, land use control, (vii) waste management, (viii) hazardous substances storage and handling, (ix) public information, consultation and participation and (ix) expropriation, involuntary resettlement and compensation.

21. The Consultant should compare the regulatory situation with international good practice and point out major gaps, where international standards should be used to ensure a diligent implementation of the project.

**Task 4. Determination of the Potential Impacts and Mitigation Measures**

22. The Consultant shall identify all significant changes that the project is likely to generate. Significant positive and negative impacts, direct, indirect and cumulative impacts, and immediate and long-term impacts shall be distinguished. They shall include indirect impacts (e.g., increased urbanization, collateral infrastructure). The Consultant shall identify impacts that may occur due to accidental events (e.g., spillage of toxic materials, fires, aircraft accidents) and impacts that are unavoidable or irreversible. Wherever possible, impacts shall be quantitatively described, in terms of environmental costs and benefits, assigning economic values when feasible.

23. The engineering designs should reflect best practice in airport layout, construction and operation to ensure that potential negative environmental impacts are minimized.
CONSTRUCTION PHASE

24. The Consultant shall review master plan and conceptual designs to the extent necessary to understand the environmental impact of the envisaged construction activities, including temporary works and installations, off-site impacts and potential socio-economic opportunities and disruptions. Based on a review of the general layout and design proposed by the Master plan the Consultant shall then develop inputs and guidelines to be included in the master project agreement to identify the duties to be placed on the investor/concessionaire and his designated Contractors.

25. Typical impacts include, but may not be limited to: disturbance/destruction of vegetation and animal wildlife, land conversion, soil erosion, disruption of hydrographic network, contamination of surface and groundwater by fuels, chemicals, lubricants or turbidity, increased transport activity, noise and emission levels, temporary waste storage and general waste generation and management, sourcing of construction materials from borrow pits and quarries, workplace health and safety, hazards for local residents, esp. regarding traffic safety.

26. The Consultant shall list and describe the impacts identified for the project, establish a ranking in terms of severity / magnitude which will present the basis for proposing mitigation measures and proposing structure and contents for an EMP for the construction phase.

OPERATION PHASE

In the ESIA special attention should be given to the following:

27. **Noise and vibrations:** The most significant sources of noise and vibrations from airport operations are aircraft during the landing and takeoff (LTO) cycles, followed by a variety of ground operations equipment including aircraft taxiing; operation of ground support vehicles (e.g. passenger buses, mobile lounges, fuel trucks, aircraft tugs, aircraft and baggage tractors, and dolly carts); aircraft auxiliary power units (APUs); and aircraft engine testing activities in airports with aircraft maintenance activities. Other indirect sources of noise include ground vehicle traffic from access roads leading to the airport.

28. The Consultant should investigate current practice and propose future measures for the prevention, minimization, or control of noise and vibration impacts, recommending noise management practices such as:

   (i) Planning of site for airport layout (new developments and expansion of existing facilities), and orientation of routes for arriving and departing aircraft relative to actual and projected residential development and other noise sensitive receptors in the surrounding area, including coordination with local authorities responsible for land-use planning and overall transportation planning activities
(ii) In areas where significant impacts are anticipated, implementation of preferred procedures and routes for landing and take off (LTO) to minimize potential noise from approaching and departing aircraft for noise-sensitive areas. These procedures may include instructions on the use of descent profiles or “noise preferential” routes (NPRs), such as the “continuous descent approach” to avoid noise-sensitive areas, the use of “Low Power / Low Drag” (LPLD) procedure to fly the aircraft in a 'clean' condition (e.g. no flap or wheels deployed) as long as possible to minimize airframe noise, and instructions on minimizing reverse thrust on landing. An alternative approach may include the dispersion of noise through equal use of multiple flight tracks as opposed to a preferential flight track and nighttime or other operating restrictions.

(iii) If necessary, working with local authorities to identify and implement noise prevention and control strategies in noise abatement zones (e.g. sound insulation of buildings that are exposed to aircraft noise above levels stipulated by local authorities or limitations on nighttime operation of certain landing routes);

(iv) Reducing noise of ground operations at the source or through the use of sound barriers and deflectors, or provision of ground power supply to the aircraft to reduce or eliminate the need for use of APU.

29. **Air Emissions:** The main sources of airport air emissions include combustion exhaust from aircraft during landing and takeoff and ground operation, from ground service vehicles, vapors from fuel storage and handling, and emissions from local ground transportation activities servicing the airport. Other sources of emissions may include fuel combustion during fire training activities, combustion emissions from on-site electricity and heat generation systems, and emissions from solid waste incineration activities.

30. The Consultant shall present the current situation, develop models for future development under airport expansion and provide recommendations to prevent, minimize, and control air emissions from ground services and aircraft ground movements including:

(i) Optimizing ground service infrastructure to reduce aircraft and ground vehicle movements on taxiways and idling at the gate;

(ii) Improving technical standards and environmental performance of ground service vehicle fleets;

(iii) Minimizing fugitive air emissions from jet kerosene and other fuel storage and handling activities;

(iv) Supplying electrical power and preconditioned air through ground-based equipment to minimize the use of aircraft APUs;

(v) In fire-fighting drills, selecting cleaner fuels such as liquefied petroleum gas, avoiding the use of waste oil or jet fuel (jet kerosene) where possible, and selecting fire-fighting drill locations and atmospheric conditions that best avoid short-term impacts to the air quality of nearby populated areas;

(vi) Incineration of wastes should only be conducted in permitted facilities operating under internationally recognized standards for pollution prevention and control;

31. **Stormwater and Wastewater:** Effluents from airport operations mainly consist of stormwater runoff from paved surfaces and sanitary wastewater from public and employee services and from airplanes. Stormwater runoff may include pollutants associated with

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23 Aircraft Power Unit
leaks and spills of oil, diesel, and jet fuels during operation and maintenance of ground service vehicles, and fuel storage and handling activities.

32. In cold climates, such as Kazan, airport stormwater runoff can include aircraft de-icing / anti-icing fluids (ADF), typically containing ethylene or propylene glycol, as well as runway and taxiway de-icing / anti-icing fluids typically containing potassium acetate, sodium acetate, calcium magnesium acetate, or mixtures of urea and water. While these chemicals are biodegradable, their direct discharge into surface waters through the stormwater drainage network can negatively impact on aquatic environments.

33. The Consultant shall investigate the current situation, provide forecasts for future scenarios and recommend strategies for the prevention and control of impacts associated with stormwater and wastewater, including:

   (i) Diverting and treating stormwater drainage from areas of potentially frequent leaks and spills of chemicals and fuels through use of an oil / water separator prior to discharge to surface water bodies. Areas where this type of runoff treatment is applicable include fuel and chemical storage, transport and dispensing facilities, fire training areas, airplane maintenance hangars, and ground service vehicle maintenance facilities;

   (ii) Collection systems for aircraft and airport facility sanitary sewage should be provided and sewage treated in appropriate plants before release into the environment;

   (iii) Monitoring of effluents prior to discharge to surface water bodies;

   (iv) In cold climates, runoff of aircraft ADF should be limited and controlled by (a) confining aircraft deicing to small areas such as graded deicing pads, designed to facilitate the collection and recycling of ADF, (b) increasing the storage of multi-strength glycol solutions to allow blending according to ambient temperatures, and avoiding the use of maximum glycol concentrations designed for the coldest expected weather under all weather conditions, (c) Use of ice detection systems such as ultrasonic devices to detect ice thickness, or computerized spraying systems that can accurately and selectively apply ADF on airplane surfaces.

   (v) The environmental impact of runway / taxiway / apron deicing can be limited by (d) primary use of mechanical de-icing methods such as sweepers and plows complemented by chemical means, (e) substituting urea or glycol deicers with less toxic, more biodegradable, and lower biochemical oxygen demand (BOD) alternatives, such as potassium acetate, sodium acetate, sodium formate, potassium formate, or calcium magnesium acetate; (f) following manufacturers’ recommended application rates and avoiding application of glycol-based deicers near storm drains that lead directly to surface water bodies; (g) providing a stormwater management systems to collect and treat surface runoff; (h) if centralized collection and treatment of stormwater runoff is not feasible, use of vacuum sweeper trucks to recover anti-icing and de-icing fluids for transport to appropriate treatment locations.

34. **Hazardous Materials Management:** Airport operations include the storage and handling of fuels (e.g. jet fuel, diesel, and gasoline) primarily associated with aircraft fueling activities as well as with ground support vehicles. Fuels may be stored in aboveground or underground storage tanks and conveyed to dispensing locations via aboveground or underground piping systems that may be subject to accidental releases during transfer or leaks due to tank and piping containment failure (e.g. corrosion of steel components or
faulty construction and installation). Fueling in smaller airports or remote sections of large airports may be conducted through the use of fueling tanker trucks. The use of liquid combustible materials and fire suppression foams and powders in fire fighting drills also may result in releases to soil and water resources.

35. The Consultant should assess the current environmental risks and impacts from hazardous materials and develop recommendations for the future management including:

(i) Prevention of accidental releases, fire, or explosions: development of spill prevention and control plans, and emergency preparedness and response plans.

(ii) Inclusion of environmental impacts, mitigation, and monitoring as part of contractual arrangements with third parties such as fuel handlers and ground service companies.

(iii) Conduction of fire training on impermeable surfaces surrounded by a retaining dyke to prevent foam and powder or other environmentally hazardous fire extinguishing agents or polluted fire water from entering the stormwater system. Water containing fire extinguishing agents and non-combusted flammable materials should be treated prior to discharge to surface water.

36. **Solid Waste Management**: Commercial airports of KIA’s capacity generate substantial quantities of solid, non-hazardous, waste. This usually includes food from airport gastronomy, packaging materials from retail facilities, and paper, newspaper, and a variety of disposable food containers from offices and common passenger areas. Commercial airports also receive solid waste from arriving aircraft which consist of food waste, disposable food containers, and paper / newspaper materials. Food waste from international flights is considered a potentially infectious material by some national jurisdictions. Sometimes all wastes coming out from International Flights have to be burned by default. Airport operations may also generate liquid or solid hazardous wastes such as used lubricating oils and solvents from aircraft and ground service vehicle maintenance.

37. The Consultant shall describe current waste management practice at KIA, develop future scenarios and recommended waste management strategies, such as:

(i) Airline operators and airplane cleaning contractors should be encouraged to segregate waste in the airplane by separating the collection of newspapers / papers, plastic, metallic containers, and used pillows.

(ii) Food catering waste from aircraft should be managed according to applicable local regulations intended to protect human and animal health;

(iii) On-site generation and storage of hazardous wastes and their subsequent treatment and disposal should be managed according to best international practice, preventing environmental damage and health/safety risks.

(iv) Instituting a solid waste recycling program, depending on the existence of local facilities, that should involve placing labeled waste containers in passenger terminals for metals, glass, paper, and plastics. Food establishments should segregate compostable and other food waste for recycling as agricultural fertilizer and animal feed; waste from arriving aircraft should be integrated into recycling programs as far as possible.

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24 The Consultant should clarify the Russian legislative approach.
SOCIO-ECONOMIC ANALYSIS

38. The current planning for Kazan airport expansion does not foresee and expansion beyond the current cadastral boundaries / ROW. However, during construction activities as well as the operational phase nuisances due to noise, dust, emissions, increased traffic and social disruption can occur. Thus the Consultant shall perform a social screening / primary stakeholder analysis followed by a social impact assessment.

39. The social screening / preliminary stakeholder analysis will be conducted to identify the opinions, expectations, hopes, interests and conflicts of the population potentially negatively affected by KIA during construction and operation. Representatives of the affected population will be asked to review the findings of the preliminary analysis and provide feedback on any issues they feel are missing.

40. The primary analysis / screening shall be based on surveys and public hearings, which will be properly announced and organized to be accessible to the affected population. The screening shall address the following issues:

- Identify categories of Project-Affected People and key stakeholders, and groups / individuals who can best represent them;
- Assess existing communication channels between project owner, official authorities and local population, and identify communication strategy and mechanisms;
- Profile and map the general population of the immediate area of influence;
- Identify temporary and permanent land acquisition requirements resulting from the project;
- Assess the impact of population influx during and after construction and due to economic development associated with / caused by the project;
- Assess job loss / job creation opportunities during and after construction, including indirect economic activities (e.g. transport, gastronomy, hotels etc.);
- Identify the population groups likely to gain / profit from the project as well as vulnerable population (e.g. especially poor families, single heads of household, women) whose living conditions and livelihoods might be temporarily or permanently negatively affected;
- Identify demands and expectations of the affected population regarding conduct of construction works relating to the minimization of short-term impact during construction to be addressed in future construction contracts;
- Assess other social and cultural impacts resulting from the Project, including family and community as well as cultural property issues;
- Organize meetings and other required instruments and processes for public information and consultation, in compliance with World Bank safeguard policies.

41. The Consultant shall determine if, and which parts / groups of the affected population might be entitled to compensation, e.g. for devaluation of property or loss of quality of life. The Consultant would develop such compensation plans with the help of GIS, determining the area of influence of particular impacts (negative and positive) and developing methodologies, formulas and/or algorithms to determine type and magnitude of potential compensation measures.
42. The Consultant shall also undertake a preliminary Health Impact Assessment in which (i) indicators for environmental quality and health assessment would be defined, (ii) plausible possible effects explored; (iii) potential exposure-response relations analyzed and (iv) the number estimated of people potentially affected, given current noise and air pollution levels in relations to KIA activities.

**Task 5. Analysis of Alternatives to the Proposed Project.**

43. The Consultant shall review the Master Plan and other available conceptual design documents and describe alternatives that were examined in the course of developing the proposed project and identify other alternatives that would achieve a better environmental or social performance of the project. The concept of alternatives extends to layout and design of structures and facilities, means of reaching project objectives, including construction techniques and phasing and operating and maintenance procedures.

44. The Consultant shall compare alternatives in terms of potential environmental impacts, land, water and energy requirements, waste generation, noise and atmospheric emissions, positive and negative social impacts, capital and operating costs (including mitigation measures and their monitoring), reliability, suitability under local conditions, and institutional, training, and monitoring requirements. For described impacts, it should be indicated which are irreversible or unavoidable and which may be mitigated. To the extent possible, costs and benefits of each alternative shall be quantified, incorporating the estimated costs of any associated mitigating measures. Include the alternative of not pursuing the project to demonstrate environmental conditions without it.

**Task 6. Conceptual Environmental Management Plan (EMP).**

45. As the design for the project is still in a preliminary stage and will be detailed only after the ESIA will have been completed, a specific, detailed EMP cannot yet be prepared. However, the Consultant shall provide the Client with an outline and detailed table of contents for the EMP, as well as guidelines which elements of the project are environmentally or socially critical and should thus be included into the EMP. Also the Consultant shall as estimate the required logistics, staff and costs of measures to avoid, mitigate or offset negative impacts, and the institutional and training requirements to implement them.

46. The Consultant shall also prepare an outline of a Monitoring Plan to obtain information on the magnitude / quantity of environmental impacts and the effectiveness of mitigation measures.

47. The Consultant shall assist the Client in preparing an EMP template so it can be integrated into the tender documents and enables bidders for the BOT contract to price and quote the measures required by the EMP in their bids. The preparation of a detailed EMP and monitoring plan would be part of the BOT tender package and become one of the tasks of the Concessionaire.

**Task 7. Assist in Inter-Agency Coordination and Public/NGO Participation.**

48. The Consultant will assist the Government of Tatarstan in coordinating the ESIA with relevant agencies and consulting with groups likely to be affected by the KIA Expansion Project and with local NGOs on the environmental and social aspects of the project. These groups shall be consulted at least twice: in meetings held during preparation before the TORs for this ESIA are finalized and when a draft ESIA is available. The draft ESIA should be made publicly accessible, especially to affected groups and local NGOs, by placing the full documentation on a project website, as well as a sufficient number of
hardcopies into publicly accessible places in or near the project area (such as public libraries and [if it exists] the airport information centre).

49. The Consultant shall also develop a draft communication strategy as well as TOR which can be included into the tender documents for the BTO contract for further development by the Concessionaire.

Q. Report

50. The Consultant should provide an ESIA report that is concise and limited to significant environmental and social issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used in interpreting those data. Detailed or un-interpreted data are not appropriate in the main text and should be presented in appendices or a separate volume. Unpublished documents used in the assessment may not be readily available and should also be assembled in an appendix. The Consultant is recommended to organize the environmental assessment report according to the outline below (which is the format suggested in OP 4.01 and also in line with the tasks described in section 6).

(1) Executive Summary
(2) Description of the Proposed Project
(3) Description of Existing Environmental Conditions
(4) Policy, Legal and Administrative Considerations
(5) Determination of Potential Impacts and Mitigation Measures
   Construction Phase
   Operation Phase
(6) Analysis of Alternatives to the Proposed Project
(7) Conceptual Environmental Management Plan
   Incl. mitigation, monitoring, capacity development, training, implementation schedule, costs
(8) Inter-Agency Coordination and Public/NGO Participation
(9) Capacity Building and Training
(10) List of References
(11) Appendices
   List of Contributors;
   Records of Inter-Agency and Public/NGO Communications;
   Data and Unpublished Reference Documents.

R. Consulting Team:

51. The Consultant shall assemble a team covering all skills and experience required to carry out the described tasks and produce deliverables in a professionally diligent manner. The team shall be able to communicate results to Client and public in practical, goal oriented terms while adhering to due technical and scientific standards in researching and
assembling information. The team shall comply with international best practice and Russian regulations in terms of conduct of work, communication with stakeholders, professional and academic qualifications, licenses, experience, etc.

52. The key positions and the minimum professional experience required are listed in the table below:

<table>
<thead>
<tr>
<th>Position</th>
<th>Required Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project leader: Civil engineer with extensive experience in environmental projects, or environmental specialist with extensive experience in large infrastructure projects</td>
<td>&gt; 15 years</td>
</tr>
<tr>
<td>Deputy project leader: as above, or social specialist with extensive experience in large infrastructure projects and proven track record of project management</td>
<td>&gt; 15 years</td>
</tr>
<tr>
<td>Environmental specialist with professional focus on assessing and managing impacts from atmospheric emissions, noise and air/soil/water/groundwater pollution</td>
<td>&gt; 15 years</td>
</tr>
<tr>
<td>Waste management specialist</td>
<td>&gt; 10 years</td>
</tr>
<tr>
<td>Airport operations specialist</td>
<td>&gt; 10 years</td>
</tr>
<tr>
<td>Civil works / construction specialist</td>
<td>&gt; 10 years</td>
</tr>
<tr>
<td>Social / Communication specialist</td>
<td>&gt; 15 years</td>
</tr>
</tbody>
</table>

53. The Consultant is encouraged to propose other team members as deemed appropriate. The team’s qualifications for the specific project will be judged largely against experience in (i) other large infrastructure projects, (ii) experience in other airport projects of comparable size and complexity.

S. Schedule

54. The Timeframe for the assignment will be from [start date] to [end date]. The estimated time input by the Consultant will be ca. 25-30 person months.

55. The key deliverables and deadlines foreseen under the Consultancy are listed below:

- Mobilization of Consultant’s team, commencement of work in Kazan 4 weeks after signing of contract by contract parties
- Inception report, describing findings re. availability / quality of data and information and detailing Consultant’s further work 6 weeks after mobilization
Kazan International Airport (KIA) - Airport Business Development Strategy and Private Sector Participation (PSP) Options

Program after mobilization

- Interim progress briefings: outlining progress, key challenges, any deviations from work program or schedule 3 and 5 months after mobilization
- Draft environmental and social impact assessment (ESIA) report 8 months after mobilization
- Final environmental and social impact assessment (ESIA) report, including conceptual EMP, monitoring plan and associated TOR for BOT contract 10 months after mobilization
- Assistance to Client with disclosure and communication of results of ESIA study to affected stakeholders and NGOs up to 12 months after mobilization

T. Other Information

- List of available information, studies, websites etc.
- To be supplied kindly by KIA

U. Structure of the Proposal

56. The ESIA consultant, as part of their deliverables, will be required to present two proposals, which will include the following details:

(a) Technical proposal

- Scope of work (along the lines of the outline contained in this document)
- Project team (experience in aviation market analysis and forecasting, including CV)
- Institutional experience with similar projects in the air transport sector
- Staff time (providing detailed staff allocation time to this project).
- Proposed work schedule

(b) Financial proposal. The financial proposal should be a fixed budget (lump sum), detailing the following:

- Staff time cost estimates (time and cost per consultant)
- Travel costs
- Other expenses
- Total cost (including all above)

K. Selection Criteria

The Selection Committee (“executing agency as the secretary”) will evaluate the proposals in two phases:

1) Technical evaluation:

Criteria for the evaluation of technical proposals are:
KAZAN INTERNATIONAL AIRPORT (KIA) - AIRPORT BUSINESS DEVELOPMENT STRATEGY AND PRIVATE SECTOR PARTICIPATION (PSP) OPTIONS

(i) Specific experience of the Advisors relevant to the assignment: 10

(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference including:
   (i) technical approach and methodology;
   (j) work plan;
   (c) organization and staffing 25

(iii) Key professional staff qualifications and competence for the assignment: 50
     The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights:
     1) General qualifications 30%
     2) Adequacy for the assignment 50%
     3) Experience in region and language 20%
     Total weight: 100%

(iv) Local presence in Russia 10

(v) Experience in Russia 5

Total points for the four criteria: 100

The minimum technical score required to pass is: 70 Points

2) Financial evaluation. The formula for determining the financial scores is the following:
Sf = 100 x Fm / F, in which Sf is the financial score for the advisor's financial proposal, Fm is the lowest price submitted by all potential advisors, and F is the price of the proposal under consideration.

The weights given to the Technical and Financial Proposals are:
T (technical) = 0.6, and
P (price) = 0.4

Government of Tatarstan
Kazan
June 2008
ANNEX 8

IFC Environmental, Health and Safety Guidelines for Airport Construction and Operation