

ASIAN DEVELOPMENT BANK

TAR: AFG 37136

TECHNICAL ASSISTANCE

TO THE

ISLAMIC STATE OF AFGHANISTAN

FOR PREPARING THE

REGIONAL AIRPORTS REHABILITATION PROJECT

November 2003

CURRENCY EQUIVALENTS

(as of 15 October 2003)

Currency Unit	–	afghani/s(AF)
AF1.00	=	\$0.021
\$1.00	=	AF48.67

ABBREVIATIONS

ADB	–	Asian Development Bank
CAMP	–	civil aviation master plan
CSP	–	country strategy and program
CSPU	–	country strategy and program update
ICAO	–	International Civil Aviation Organisation
IEE	–	initial environmental examination
MCAT	–	Ministry of Civil Aviation and Tourism
TA	–	technical assistance
TSR	–	Transport Sector Review
UNHAS	–	United Nations Humanitarian Air Services

NOTE

In this report, "\$" refers to US dollars.

This report was prepared by H. Iwasaki.

I. INTRODUCTION

1. The Islamic State of Afghanistan has requested Asian Development Bank (ADB) technical assistance (TA) to prepare the Regional Airports Rehabilitation Project. An ADB mission visited Afghanistan in August 2003 to undertake fact-finding for the TA and reached an understanding with the Government on the goal, purpose, scope, implementation arrangements, and terms of reference of the TA.¹ The TA is included in ADB's country strategy and program update (CSPU) for 2003–2005, approved in June 2003.²

II. ISSUES

2. Afghanistan is a landlocked country. Its population, estimated at 26 million, is spread over a large area (about 652,000 square kilometers) of mostly mountainous terrain. Apart from Kabul, the capital, and a few provincial capitals such as Herat, Kandahar, and Mazar-e Sharif, there are very few population centers. With the rugged Hindu Kush mountains occupying the geographical center of the country, these population centers are physically separated by steep mountains or by desert. In the absence of a railway system and functioning river ports, Afghanistan depends solely on road and air transport for the movement of passengers and goods. Since the end of the conflict, massive efforts have been made to rehabilitate the country's 3,300 kilometers of primary road network, consisting of a ring road connecting Kabul to major population centers, and international links to neighboring countries. While the road network, when completed, will offer reliable links capable of transporting large volumes of goods and people, air transport will continue to offer the best and often the only quick link between remote provinces and Kabul. Afghanistan's airspace, due to its strategic geographical location, offers one of the shortest routes between Asia and Europe. Keeping the Afghanistan's airspace open to international over-flights broadly benefits the international community as well as the country itself.

3. Afghanistan has two major air gateways: Kabul International Airport serving the capital, and Kandahar International Airport serving the south of the country. The two airports were operated in the past under instrument flight rules with day and night operations. Four major domestic airports³ with airside pavements provide air connection to the major cities. In addition, 16 regional domestic airports⁴ are spread over the country serving the smaller more remote areas. These airports have mainly gravelled airside facilities and operate under visual flight rules. In the 1970's, two Afghan carriers provided air transport services: one provided international services and the other, domestic services connecting the airports. In 1979, at their preconflict peak, they transported 146,000 passengers and 1.01 million tons of freight.

4. The prolonged state of conflict in Afghanistan has resulted in large-scale deterioration of the civil aviation infrastructure and depletion of the skilled human resources. In addition to lack of maintenance, the deterioration was accelerated by the heavy damage inflicted during decades of civil strife and the recent military operations. Paved runways, taxiways, and aprons, originally constructed to a high standard, are showing signs of severe ageing, embrittlement,

¹ The TA first appeared in *ADB Business Opportunities* (Internet edition) on 20 August 2003.

² ADB. 2003. *Country Strategy and Program Update (2003–2005): Afghanistan*. Manila.

³ At Herat, Jalalabad, Kunduz, and Mazar-e Sharif.

⁴ At Bamyan, Bost, Chaghcharan, Darwaz, Faizabad, Farah, Khost, Khwahan, Kron Monjan, Maymana, Qal'eh-ye Now, Sheberghan, Sheghnan, Taloqan, Tereen Kowt, and Zaranj.

and loss of bitumen, plus bomb craters and similar damage at a number of locations. Cracks and dips have been partially repaired and overlay has been placed, in most cases without proper engineering consideration. There are no functioning navigation aids or meteorological facilities in the country and practically all of the previous aviation communications system is destroyed or not operating. There is an urgent need to rehabilitate civil aviation infrastructure in Afghanistan to support regular air transport services on international and domestic routes and over flights. To bring the airport infrastructure to a standard that meets the desired level of civil aviation activities at each airport, and complies with the standards and recommended practices set by the International Civil Aviation Organisation (ICAO), a massive rebuilding effort is required.

5. The Ministry of Civil Aviation and Tourism (MCAT) is responsible for operation and maintenance of the country's 22 airports registered with it, including 2 international airports at Kabul and Kandahar, 4 major domestic airports, and 16 regional airports providing access to extremely remote areas. In addition, MCAT owns the national airlines (Ariana Afghan Airlines) and major hotels, and is responsible for promoting tourism and providing related services. MCAT is divided into eight presidencies responsible for operations, meteorology, technical matters, administration and finance, documents and licenses, planning, law and regulations, and Kabul international airport. MCAT currently has about 1,200 staff. Due to the deterioration in infrastructure and depletion of trained staff, MCAT has an inadequate ability to provide an air traffic control service for the Afghanistan airspace. With the existing controllers and technical support staff, and with the available communication, surveillance, and navigation systems, it is impossible to assure safety of flights over Afghanistan air space. If the international forces withdraw their present level of airspace management, a serious flight safety situation will arise. Immediate action has to be taken to rehabilitate and improve the institutional capacity of MCAT to operate and maintain the airports in the country.

6. The national airline, Ariana Afghan Airlines, was established in 1955 and has continued to operate, despite the adverse circumstances of the last two decades. In 1971, its domestic operation moved to a newly established airline, Bakhtar, which was also government-owned. At its peak period in the late 1970s, Ariana's fleet flew regularly to major Western European cities as well as to neighboring countries. Bakhtar maintained an extensive domestic network until it reintegrated with Ariana in 1980. During the last decade, though, Ariana lost most of its international routes mainly due to the conflict within the country and international sanctions imposed against the previous regime. It also lost most of its fleet and trained personnel during the same period. Since the end of the conflict, it has been expanding its international reach. Ariana currently owns 8 aircrafts. It operates international flights to 13 destinations as far as Germany. However, the old age of its fleet, shortage of properly trained personnel, poorly equipped maintenance facilities, and lack of proper oversight functions in MCAT have contributed to concern about the safety and reliability of Ariana's fleet operation. Serious safety concerns were raised by an ICAO oversight team that visited Afghanistan in April 2003. Foreign airlines from nearby countries have already started services to Afghanistan. In August 2003, the first regular direct flight from Europe landed in Kabul. The Afghan airspace is rapidly opening to international flights, and institutional strengthening of the national airline and the regulatory functions of MCAT is urgently needed.

7. For domestic routes, Ariana currently provides limited services from Kabul to Herat and Mazar-e Sharif. Flights to other domestic destinations⁵ as well as to these cities are operated by the United Nations Humanitarian Air Services (UNHAS). UNHAS is an initiative of the United

⁵ UNHAS operates flights from Kabul to Bamyan, Faizabad, Herat, Jalalabad, Kandahar, Kunduz, Maymana, and Mazar-e Sharif. It also operates flights to Dubai, Dushanbe, and Islamabad.

Nations World Food Programme (WFP) to provide a safe, economical, responsive and efficient air transport service to the humanitarian community, and is only involved in post conflict situations. UNHAS is not likely to continue its extensive coverage in the country over the long term, and Ariana is unlikely to be able to expand its domestic services to cover the routes currently operated by UNHAS, as the routes will not be profitable in the foreseeable future. Measures should be devised to maintain domestic aviation services in a sustainable manner, so remote provinces will continue to have minimum levels of access to basic social services. These measures would include arrangements to license commercially viable routes to private sector operators while maintaining public-sector support for routes that are not commercially viable but are deemed necessary for social and development reasons.

8. The country strategy and program (CSP) for Afghanistan (2002–2004) was endorsed by ADB's Board of Directors in May 2002, paving the way for delivery of assistance earmarked for 2002.⁶ The objective of the CSP was to assist the Government in the reconstruction and rehabilitation of the country to ensure a seamless transition from humanitarian to reconstruction and development assistance. Since then ADB has approved the \$150 million Postconflict Multisector Program Loan and grant-financed TA and other nonlending operations totaling \$37 million including a \$14.5 million capacity-building TA cluster.⁷ Under the TA cluster, \$0.5 million has been allocated for capacity building of the MCAT.

9. An update of the CSP covering the 2003–2005 program was approved by ADB's Board of Directors on 3 June 2003. The CSPU follows the overriding objective of the CSP, and focuses on agriculture, transport, and energy based on a number of considerations, including (i) the 12 national development programs and six national priority subprograms identified by the National Development Budget, (ii) the Government's expressed wish to limit each aid agency to three sectors, (iii) ADB's comparative advantage, and (iv) ADB and other funding agencies' operation experience in Afghanistan. The \$150 million Emergency Infrastructure Rehabilitation and Reconstruction Project, which was approved by the Board at the same time as the CSPU, is the first lending project from CSPU. The TA is newly included in CSPU, and is to prepare ADB's first lending project in Afghanistan's civil aviation sector.

10. The Transport Sector Review (TSR), assisted by a team of experts funded by the Swedish International Development Cooperation Agency (Sida) and ADB, comprehensively assessed the overall transport sector in Afghanistan and made policy recommendations. Recommendations pertinent to civil aviation are the following: (i) policy on international and domestic routes; (ii) creation of a proper licensing system; (iii) relationship between Ariana and the government; (iv) airport infrastructure and its operation; (v) air traffic management system; (vi) regulation of aviation safety; and (vii) cross-cutting themes such as environment, gender, and subsidy for domestic routes to support provision of basic public services. The TSR also proposes the sequence of capacity-building measures and investments to improve domestic airports, with preliminary cost estimates for investments. Core recommendations of the TSR, after due consultation with the concerned ministries and other stakeholders, need to be consolidated into plans and programs to be implemented by the Government. For the civil aviation sector, a comprehensive master plan is needed to provide the framework and timeline for each action to be taken by the Government. The plan must be based on sound economic analysis and international best practices, with proper consideration to social and development requirements of the country. Appendix 1 is a summary initial poverty and social analysis.

⁶ ADB. 2002. *Country Strategy and Program (2002–2004): Afghanistan*. Manila.

⁷ ADB. 2002. *Technical Assistance Cluster to the Republic of Afghanistan for Capacity Building for Reconstruction and Development*. Manila.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

11. The main objectives of the study are to (i) prepare a civil aviation master plan (CAMP) to provide the framework and time-bound action plan for sustainable and effective development of the civil aviation sector in Afghanistan; (ii) undertake feasibility studies for rehabilitating selected major domestic airports and other regional airports; and (iii) prepare an implementation program to strengthen the institutional capacity of MCAT to implement the ensuing investment projects, and operate and maintain the rehabilitated airports.

B. Methodology and Key Activities

12. The scope of the project preparatory TA includes (i) preparing the CAMP; (ii) preparing outline designs and cost estimates for improving major domestic airports and other regional airports; (iii) preparing a schedule for implementing improvements based on appropriate levels of service for operators and users; (iv) preparing the economic and financial evaluation for each airport; (v) developing appropriate procurement packaging and procedures to facilitate speedy project implementation; (vi) assessing the development impact on poverty; (vii) preparing social and environmental assessments and identifying necessary mitigation measures, if any, especially for the poor; (viii) identifying institutional requirements for (a) implementation of the ensuing loan projects, and (b) operation and maintenance of the rehabilitated airports; and (ix) preparing an implementation plan to strengthen the capacity of MCAT to meet the requirements.

13. Feasibility studies comprising tasks (ii) to (vii) in para. 12 will be carried out in two phases. The first phase will carry out a feasibility study for rehabilitation of preselected major domestic and/or regional airports on a priority basis, for inclusion in the envisaged regional airports rehabilitation project programmed for 2004. The second phase will carry out a feasibility study on the other regional airports, based on the priority accorded to each airport in the CAMP, and prepare a second regional airports rehabilitation project, programmed for 2005.

14. Final selection of the airports to be included in the two projects proposed for ADB loan assistance will be subject to further refinements and modifications that might become necessary through the master plan study, other data available from the TA study, and any other changes in the Government's priorities by the time of the fact-finding mission for the proposed project in 2004 by ADB.

C. Cost and Financing

15. The total cost of TA is estimated at \$1.18 million equivalent comprising \$885,000 in foreign exchange, and \$295,000 equivalent in local currency. ADB will provide \$1.00 million equivalent to finance the entire foreign exchange cost and a portion of the local currency cost of \$115,000 equivalent, on a grant basis from ADB's TA funding program. The Government will finance the remaining \$180,000 equivalent of local currency cost through in-kind contributions. Details of the cost estimates and the financing plan are in Appendix 2. The Government has been advised that approval of the TA by the ADB does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

16. The Executing Agency for the TA will be MCAT. The Government will make available a team of counterpart staff headed by the technical deputy minister of MCAT, who will be

responsible for overall coordination among relevant ministries and agencies, TA consultants and ADB, airline operators, airport users, and other stakeholders. MCAT will make the necessary arrangements with concerned government agencies and provincial governments to help the consultants carry out the studies for the project airports in a timely manner. MCAT will provide office accommodation, local communication facilities, office support staff, and other administrative support including arrangements for the consultant's travel outside Kabul.

17. The TA will require a total input of 52 person-months of consulting services: 32 international and 20 domestic. Preparation of the CAMP and the implementation program to strengthen the institutional capacity of MCAT will require an input of 12 person-months of international consulting services, and will be conducted by ICAO, which will be engaged through the direct selection procedure. ICAO is rightly equipped to carry out these tasks because it: (i) is a United Nations body that sets all the technical and institutional requirements to be met by its member country's civil aviation sector; and (ii) has participated in the comprehensive needs assessment mission led by ADB and the World Bank, and has assessed the physical and institutional aspects of the Afghanistan civil aviation sector (the results have been largely incorporated in the TSR report). By engaging ICAO, the TA can be implemented in a most efficient and effective manner, avoiding unnecessary duplication. The feasibility study will require an input of 40 person-months of consulting services (20 international and 20 domestic), and will be carried out by a team of consultants with experience in airport planning and engineering, air transport economics and poverty analysis, aviation management and financial analysis, and social and environment assessment. Consultants for the feasibility study will be engaged using ADB's quality- and cost-based selection procedures and according to ADB's *Guidelines on the Use of the Consultants* and other arrangements satisfactory to ADB for engaging domestic consultants. Equipment will be procured in accordance with ADB's *Guidelines for Procurement* under the direct purchase procedure. The outline terms of reference for consultants are in Appendix 3.

18. The TA will be implemented over 8 months, starting in January 2004 and ending in August 2004. The consultants will submit inception, interim, and draft final reports within the following periods of time from the commencement of the services: (i) for CAMP preparation and institutional strengthening, an inception report within 3 weeks, an interim report covering the investment priority within 3 months, and a draft final report within 6 months; and (ii) for the feasibility study, an inception report within 3 weeks, an interim report within 2 months, and a draft final report covering the first phase airports within 4 months, and a draft final report covering the second phase airports within 7 months. Tripartite meetings consisting of MCAT, TA consultants, and ADB will discuss the reports. At the tripartite meeting to discuss the interim report of the CAMP, the airports to be included in the second phase feasibility study will be determined. After the submission of the interim report on the CAMP and institutional strengthening, a workshop will be held to discuss the output of the reports with stakeholders. A final report will be submitted for each component within 1 month after the corresponding tripartite meeting.

IV. THE PRESIDENT'S DECISION

19. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis to the Islamic Transitional Government of Afghanistan for preparing the Regional Airports Rehabilitation Project, and hereby reports this action to the Board.

SUMMARY INITIAL POVERTY AND SOCIAL ANALYSIS

A. Linkages to the Country Poverty Analysis

Sector identified as a national priority in country poverty analysis?	Yes	Sector identified as a national priority in country poverty partnership agreement?	No PPA yet
<p>Contribution of the sector/subsector to reduce poverty in Afghanistan:</p> <p>The prolonged state of conflict in Afghanistan has resulted in large-scale deterioration of the civil aviation infrastructure and depletion of the skilled human resources. In addition to lack of maintenance, the deterioration was accelerated by the heavy damage inflicted during decades of civil strife and the recent military operations. With its population widely spread over large mountainous regions, Afghanistan relies significantly on the civil aviation to provide its remote communities with much-needed humanitarian aid and basic public services. Rehabilitation and strengthening of the civil aviation sector is crucial in extending the reach of the government in Kabul and facilitating stabilization and integration of the country. Most of the domestic air services are currently being provided by a United Nations agency. Rehabilitation of the civil aviation infrastructure is a prerequisite for private sector service providers to provide efficient and affordable means of transport to most of the population living in remote rural provinces. Rehabilitation of airports will also contribute to employment creation, income generation at the household level, rehabilitation of displaced populations and ex-combatants, improvement of security and stability, interethnic reconciliation, and political unification of the country. The proposed Project will use, to the extent possible, labor-intensive construction methods to provide much-needed employment and income generation opportunities.</p>			

B. Poverty Analysis

Proposed Classification:

Beneficiary nonspecific intervention

What type of poverty analysis is needed?

- Socioeconomic profile of the population in the project area.
- Distribution analysis of expected benefits and resulting economic growth. Analysis of constraints and the ability of poor and vulnerable groups to benefit from economic growth, trade, and increased integration.

C. Participation Process

The project design will be developed through stakeholder consultations. Community consultation will be carried out to determine engineering solutions to minimize adverse impacts, if any. Based on the technical requirements, opportunities for local communities, displaced populations and ex-combatants in particular, to work on the civil works such as earthworks will be incorporated.

D. Potential Issues

Subject	Significant, Not Significant, Uncertain, None	Strategy to Address Issues	Plan Required
Resettlement	Not significant	No extension of runways is anticipated. The civil work will remain in the already acquired right of way. No encroachment is observed	No
Gender	Uncertain	The executing agency will ensure that women and men are given equal opportunities for employment on the Project. Contractors will be required to ensure equal payment for equal work. The supervision consultant will monitor these actions in due course.	A specific clause will be included in the bidding documents of the civil works.
Affordability	None		No
Labor	Not Significant	Employment opportunities within the Project will be available to all on the basis of professional competence, irrespective of gender, ethnic or religious group.	No
Indigenous People	None	No indigenous people and communities will be negatively affected by the Project.	No
Other Risks/ Vulnerabilities	Institutional Capacity	The capacity of the executing agency to address social issues is very inadequate. An institutional strengthening component is included in the technical assistance.	TA

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank (ADB) Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	640	0	640
ii. Domestic Consultants	0	40	40
b. International and Local Travel	90	10	100
c. Reports and Communications	10	0	10
2. Equipment ^b	30	0	30
3. Workshop	10	5	15
4. Surveys	0	10	10
5. Vehicle Hire	0	20	20
6. Miscellaneous Administration and Support Costs	0	15	15
7. Representative for Contract Negotiations	5	0	5
8. Contingencies	100	15	115
Subtotal (A)	885	115	1,000
B. Government Financing			
1. Office Accommodation and Transport	0	70	70
2. Remuneration and Per Diem of Counterpart Staff	0	90	90
3. Others	0	20	20
Subtotal (B)	0	180	180
Total	885	295	1180

^a Financed on a grant basis by ADB's technical assistance (TA) funding program.

^b Includes office hardware (photocopier, facsimile machines, desktop computers, and printers) and computer software for word processing, spreadsheet analysis, and Internet access. The Government is responsible for all taxes and duties, if any. Equipment will be turned over to Ministry of Civil Aviation and Tourism after completion of the TA.

Source: ADB estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

1. The consultants will use in their work the studies already carried out by the Transport Sector Review (TSR), International Civil Aviation Organisation (ICAO), and other external assistance, to expedite the technical assistance activities and avoid duplication of work. Throughout, the consultant will pay systematic attention to (i) safety and security; (ii) economic efficiency; (iii) sustainability; and (iv) development impact, particularly with respect to impacts on poverty and adverse social impacts on vulnerable groups. The terms of reference for the consultant will include, but not necessarily be limited to, the following:

A. Civil Aviation Master Plan (9 person-months of international consultants)

2. The consultant will examine the civil aviation sector of Afghanistan in its totality and identify a sectorwide strategy for development. This will include assessment of the civil aviation infrastructure required service standards, future demand on the aviation system, requirements for infrastructure development, and institutions and human resources necessary to ensure delivery against the identified standards. The consultant will do the following:

- (i) Develop a methodology and make forecasts for aircraft, passenger and air freight traffic at all airports and international overflights for the next 10 years, taking into account the national and regional economic development and impact of tourism development.
- (ii) Prepare forecasts of revenue and expenditures anticipated at all airports and air navigation services for the next 10 years. Conduct financial analyses of the operation and maintenance of the airport facilities and propose measures to ascertain financial sustainability.
- (iii) Assess the commercial viability of flight operation on the domestic routes over the next 10 years. Review the tariff structure for domestic flights. Recommend an appropriate action plan for transparent and quantifiable analysis of subsidies between routes and users, in accordance with ADB's criteria for subsidies.
- (iv) Assess existing deficiencies of the airports that are accessible. This assessment will benefit from the Report on Airport Development prepared in June 2003 by a team of TSR consultants.
- (v) Develop the technical requirements for the international and domestic airports in view of ICAO Standards and Recommended Practices and certification requirements, with proper consideration to the levels of forecasted air transport traffic at each airport. The design requirements for the airport facilities should be developed with specific consideration to the gender aspect.
- (vi) Propose the priority to be accorded to rehabilitation or improvement of the infrastructure, installations, facilities, and equipment of the airports, taking into account the need to ensure minimum standards of accessibility are met.
- (vii) Review regulations, orders, and manuals of MCAT affecting safety oversight, and propose their updating, using the report of the ICAO safety oversight team that visited Afghanistan in April 2003.

- (viii) Review the organization structure of MCAT and propose its updating. If appropriate, propose creation of an autonomous civil aviation authority or airport and air navigation service entities.
- (ix) Propose policies and procedures for licensing operation of air transport services on commercially viable routes, and for operation of services on routes that are not commercially viable but necessary for social and development reasons.
- (x) Evaluate the national airline's management, operating and technical capabilities and the adequacy of its fleet and personnel, and propose their upgrading to meet international requirements and expansion to accommodate forecasted traffic demands. The evaluation will benefit from the report of the ICAO safety oversight team that visited Afghanistan in April 2003.
- (xi) Evaluate the air navigation facilities and services in the light of the ICAO Regional Plan and ICAO Communications, Navigation and Surveillance/Air Traffic Management applications envisaged, with proposals as appropriate for upgrading and updating of facilities, services, procedures and personnel. This evaluation will benefit from the inputs of the ICAO Team in Afghanistan and the Federal Aviation Authority (FAA) team report of September 2002.
- (xii) Assess aviation security policies, procedures, facilities, and personnel in the country and at airports. Propose actions for upgrading them to conform with requirements of ICAO and international aviation security convention and protocols.
- (xiii) Evaluate the feasibility of relocating the Kabul International Airport, taking into account the safety, security, and economic costs and benefits.
- (xiv) Recommend appropriate strategies for the development of potential regional hubs and /or additional international airports in Afghanistan.
- (xv) Assess needs of additional external assistance for implementing the recommendations and proposals in view of ongoing and possible bilateral and multilateral assistance to the civil aviation sector.
- (xvi) Draft a Civil Aviation Master Plan (CAMP) for a 10-year period based on the findings and recommendations, and conduct a workshop on the findings and recommendations to be reflected in the CAMP.

B. Implementation Program for Institutional Strengthening (3 person-months of international consultants)

3. The consultant will do the following:

- (i) Determine the number and qualification of technical, operations and management personnel needed in each field of civil aviation covered by the project for the next 10 years.
- (ii) Examine the programs and facilities of the Civil Aviation Training Center and training needs. Propose an improvement plan based on future training

requirements, including assistance required for institutional strengthening and capacity building.

- (iii) Consolidate (i) and (ii) into an implementation program for institutional strengthening of MCAT.

C. Preparation of Feasibility Studies (Phase I: 12 person-months of international and 10 person-months of domestic consultants; phase II: 8 person-months of international and 10 person-months of domestic consultants)

1. Engineering

4. The consultant will do the following:

- (i) Review reports for rehabilitation of the project airports.
- (ii) Prepare outline designs at each airport and prepare technical specifications and drawings to meet the technical requirements developed under the CAMP preparation, taking into account the existing designs (if any), current engineering practices of MCAT, ICAO Standards and Recommended Practices, and the best international practices.
- (iii) Prepare a detailed list of materials, facilities, equipment, and work necessary, and estimate their costs, separated into foreign and local components.
- (iv) Outline project implementation and procurement arrangements, including contract packaging. Prepare a project implementation schedule, taking into account the local availability of required resources to carry out the proposed civil works.

2. Economic Analysis

5. The consultant will do the following:

- (i) Carry out in-depth economic analysis of the project, including calculation of the economic rate of return, taking into account economic costs and benefits. Conduct relevant sensitivity analyses of identified macro, sector, and project risks. The analyses will be undertaken in accordance with the Asian Development Bank (ADB) *Guidelines for the Economic Analysis of Projects* and *ADB's Handbook for Integrating Risk Assessment in the Economic Analysis of Projects*.
- (ii) Using a detailed analysis of economic development and benchmarking of beneficiaries and benefits, conduct a distributional analysis in accordance with *ADB's Handbook for Integrating Poverty Impact into Economic Analysis of Projects*. Describe expected benefit distributions in quantitative and qualitative terms and conduct sensitivity analysis with respect to assumptions and risks.
- (iii) Specify indicators to monitor the project benefits. Establish procedures and cost estimates for project performance monitoring and evaluation arrangements following the framework of ADB's project performance management system.

3. Financial Analysis

6. In accordance with *Guidelines for the Financial Governance and Management of Investment Projects Financed by the Asian Development Bank* (2001), the consultant will (i) carry out in-depth financial analysis for each of the project airports, including calculating the

financial rate of return and weighted average cost of capital, taking into account financial costs and benefits; and (ii) conduct relevant sensitivity analyses of identified project risks.

4. Poverty Analysis

7. The consultant will do the following:
- (i) Conduct a socioeconomic and poverty profile analysis of the affected provinces based on existing documents and data, and examine the potential for development and economic growth resulting from the project.
 - (ii) Identify constraints on the poor and vulnerable groups that inhibit them from benefiting from the project and economic growth. Examine fiscal impacts of the proposed project and subsidy structure and its implications for poverty.
 - (iii) Conduct a distributional analysis of macro and micro social and economic costs and benefits among major beneficiary groups.

5. Environmental and Social Issues

8. The consultant will do the following:
- (i) Conduct an initial environmental examination (IEE) of the proposed development at each airport, taking into account the likely impacts associated with construction activities, as well as the long-term impacts during operation.
 - (ii) Recommend appropriate environmental mitigation and monitoring measures to address these impacts and assess the environmental benefits of the proposed activities. Recommend any capacity strengthening measures that may be needed.
 - (iii) Prepare an IEE report and a summary IEE based on the *Environmental Assessment Guidelines*, *ADB's Environmental Guidelines for Selected Infrastructure Projects*, and any applicable procedures or guidelines for environmental assessment as required by Afghanistan. Ensure that the costs of recommended mitigation and monitoring measures, and any capacity strengthening measures, are included in the proposed Project's development costs. Prepare terms of reference for any further detailed environmental assessments, if required, in consultation with all stakeholder groups through the participatory framework.
 - (iv) Identify and prepare socioeconomic profiles of the affected communities in the project areas in terms of household sizes, demographic trends, income sources and levels, occupations, socioeconomic conditions, social service infrastructure, and social organizations, in accordance with (a) relevant ADB guidelines and publications, including the *Handbook on Poverty and Social Analysis* (2001), *Handbook on Resettlement* (1998), and *Handbook for Incorporation of Social Dimensions in Projects* (1994); and (b) the requirements of Afghanistan. The profiles will include the gender and local ethnic minority profiles. Carry out any further surveys needed.
 - (v) Undertake social analysis as per guidelines (in [iv]) and ADB's policies on involuntary resettlement (1995), indigenous peoples (1999), and gender and development (1998). Identify the affected populations and principal beneficiaries of the Project. Assess the stage of development of various groups of the population and characterize the special needs and demands of each group.
 - (vi) Assess the impacts of land acquisition or loss of land use on affected people (in terms of loss of homes, agricultural and other lands; or loss of access to current income-generating activities), including impacts caused by permanent or

temporary acquisition. If there are to be land acquisition impacts, prepare an implementable resettlement plan as per *ADB's Policy on Involuntary Resettlement* and *Handbook on Resettlement: A Guide to Good Practice*, involving full stakeholder and the executing agency participation. Preparation of the plan will be based on a full census and inventory of lost assets of affected people and baseline socioeconomic and perception survey of at least a 20% sample of the affected population, and a study to determine the replacement costs of all categories of losses. Assess the capacity of responsible institutions to plan, manage, implement, finance, and monitor effective land acquisition, compensation, and resettlement, and identify capacity building measures to be included in the project.

6. Others

9. The consultant will (i) determine an adequate project management organization and the inputs in terms of expertise and person-months required for preconstruction activities and construction supervision; and (ii) prepare terms of reference for consulting services required for project implementation and the initial operation and maintenance of airport facilities and equipment acceptable to the ICAO standards.