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KABUL MUNICIPALITY
MINISTRY OF TRANSPORT

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ON URBAN TRANSPORT
IN AFGHANISTAN

FINAL REPORT
PART-3 DATA COLLECTION AFTER AUGUST 2021

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List of Abbreviations

Afghanistan	Islamic Republic of Afghanistan
ACAA	Afghanistan Civil Aviation Authority
ANDS	Afghanistan National Development Strategy
ANPDF	Afghanistan National Peace and Development Framework
ADB	Asian Development Bank
AITF	Afghan Infrastructure Trust Fund
AIA	Afghanistan Interim Administration
ARTF	Afghanistan Reconstruction Trust Fund
ARAP	Afghanistan Rural Access project
ARA	Afghanistan Railway Authority
ANRP	Afghanistan National Railway Plan
AH	Asian Highway
BCP	Border Crossing Points
BRT	Bus Rapid Transit
CERP	Commander's Emergency Response Program
CDC	Community Development Councils
CD	Capacity Development
CAREC	Central Asia Regional Economic Cooperation
CRIDA	Capital Region Independent Development Authority
C/P	Counterpart
DCDA	Dehsabz-Barikab City Development Authority
DOD	Department of Defense
ESCAP	Economic and Social Commission for Asia and the Pacific
GIS	Geographic Information System
GDP	Gross Domestic Product
IRI	International Roughness Index
JICA	Japan International Cooperation Agency
KM	Kabul Municipality
KMDP	Kabul Municipal Development Program
KSP	Kabul Solidarity Program
KUDF	Kabul Urban Design Framework
KURP	Kabul Urban Reconstruction Project
KUTEI	Kabul Urban Transport Efficiency Improvement project
MAIL	Ministry of Agriculture, Irrigation and Livestock
MOT	Ministry of Transport
MOI	Ministry of Interior

MOPW/MPW	Ministry of Public Works
MDGS	Millennium Development Goals
MRRD	Ministry of Rural Rehabilitation and Development
NACTO	National Association of City Transportation Officials
NDF	National Development Framework
NH	National Highway
NPDF	National Peace and Development Framework
NRIRCI	National Regional Integrated Resources Corridor Initiative
NIP	National Infrastructure Plan
NRAP	National Rural Access Program
NSIA	National Statistics and Information Agency
O&M	Operation and Maintenance
OSBP	One Stop Border Post
PASER	Pavement Surface Evaluation and Rating
PMO	Project Management Office
PPMD	Program and Project Management Directorate
PT	Peer Training
SIGAR	Special Inspector General for Afghanistan Reconstruction
TA	Technical Assistance
TOTs	Training of the Trainers
UN	United Nations
USAID	United States Agency for International Development
USCENTCOM	United States Central Command
US\$	United States Dollars

Summary

Part-3 describes the current status of the transport sector in Afghanistan and in the capital city of Kabul, based on information gathered in response to changes in political situation since August 2021. In addition, the history of roads and railways development throughout the country is also described since 2001, so that the results of 20 years of efforts by Afghanistan and the international community can be grasped in a comprehensive manner.

To prepare this report, the data and information were reviewed, analyzed, and interpreted that obtained from national and international reports, relevant websites, accredited media, as well as personal interviews with the local officials without direct interaction with the de facto authority.

Chapter-1 provides overall information regarding government policy and plans at the national level, and international partners' supports in the road and transport sector since 2001 till 2021. The overall policy of Afghan government together with international partners for Afghanistan's rehabilitation, were divided into two major periods; UN-led period of Transition (2001-2014), and Transformation Decades (2015-2025). Several national plans and policies emphasizing on the importance of transport sector particularly rehabilitation of highways and ring road were developed. As the latest government policy, ANPDF-II was developed for 2021-2025 which aimed to transform Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region, where comprehensive and effective short-term, mid-term and long-term projects for the development of transportation (roads, highways, and railways) were given the top priorities. In line with ANPDF-II, Transport Sector Master Plan, Transport and MPW Strategies were the official document that explained government policy for development of transportation and road sector in Afghanistan.

International community contributions overall to the transport sector, particularly to road sector were remarkable in the last 20 years. The Afghan government and its development partners invested billions of dollars in the restoration and improvement of the country's transport infrastructure and institutions, led by USA/USAID with spending US\$ 2.6 billion followed by ADB, contributed US\$ 1.9 billion through ADF and AITF, World Bank and Japan/JICA. Overall more than 5,000 km of highways and 40,000 km of provincial & rural roads were rehabilitated or improved over 13 years during 2002-2015. Positive signs and strong evidence of usefulness of these investments, particularly roads, indicated that economic growth has been stimulated. Afghanistan's external trade increased from US\$2.2 billion in 2003 to US\$8.6 billion in 2013 with an average annual growth of 21%.

Japan government official assistance to Afghanistan in the transport sector is summarized under section 1-3. In the road and transport sector alone, Government of Japan has spent more than USD 220 million as grant aid to improve more than 700 km of road including the national Ring Roads, major highways, trunk and local roads at national/provincial level and urban areas.

As a major contribution to urban transportation in Kabul, JICA has implemented at least 18 projects which mainly included Rehabilitation of the Public Transportation System in Kabul City, Development of Kabul Metropolitan Master Plan and Promotion of Kabul Metropolitan Area Development. Several sub-projects such as Revision of Kabul City Master Plan, Reconstruction and Improvement of Kabul City Roads were implemented under the Promotion of Kabul Metropolitan Area Development Project which have had remarkable impact in the improvement of transport and road sector in Kabul city.

Chapter-2 mainly investigates the planning and maintenance status of land transport corridors between Afghanistan and neighboring countries, study the country's socioeconomic characteristics, trade logistics, border crossing, and customs procedures. The existing and planned network of both road and railway transport has been studied, the surface condition of the road network has been identified, major road network and surface condition maps have been developed and necessary recommendation for maintaining the road network has been prepared.

Due to the geographical importance of Afghanistan, about four thousand kilometers of Asian Highways and four of six CAREC transport corridors are traversing Afghanistan. The country has more than 19,000 km of main roads consisting of national highways, provincial highways, and district roads. The total length of National Highways which includes the land transport corridors that connect Afghanistan to the neighboring countries are 6,854 km. The backbone of the national highway is the Afghanistan Ring Road with a length of approximately 2,200 km. Afghanistan National Highways map differentiated with colors was prepared as part of the report. Similarly, surface condition maps for the National Highways were prepared based on previously done IRI and PASER surveys. Substandard construction, no proper

maintenance system, natural disaster caused by climate change, overloaded trucks, explosions, and security are the main reasons of pavement deterioration.

Despite the importance of railway transport for Afghanistan, the total length of railways in the country is only about 104 km, which includes Hairatan to Mazar-e-Sharif railway line (75 km), Aqina station (16 km), Turghundy Station (13 km). But, the Ghani government planned to construct over 5000 km of railway track, 4 dry ports, and 8 multimodal hubs. The plan included 574 km of central corridors, 665 km of North–Southeastern Corridor, 1831 km of Northwestern–South–Southeastern Corridor, and 1970 km of Northwestern–North–Northeastern Corridor. Political conditions, security conditions, unavailability of enough funding, and rail gauge differences between Afghanistan and neighboring countries are among the major challenges of the Afghanistan railway.

Moreover, socioeconomic conditions, customs procedures, and trade statistics were analyzed. Population density map and main logistic border crossing points map were prepared. Export and import data for 2021 and 2020 were compared. The officially recorded exports of goods were around US\$ 850.1 million in 2021 and US\$ 776.7 million in 2020. To compare, export has been increased by 9.4 percent in 2021 over 2020. On the other hand, the officially recorded import of goods in 2021 was US\$ 5307.8 million. The registered imports in 2021 compared to 2020 decreased by 18.8 percent (from US\$ 6537.6 to US\$ 5307.8 million). Finally, it was found that long customs procedures and complicated border procedures have negative impacts on regional trade along with other challenges.

Chapter-3 mainly discusses the changes in transportation sector related organizations, their policies and current efforts since August, 2021. With the establishment of Taliban de facto authority and its isolation by international society, new challenges have been raised in the transport sector. The international community has stopped providing aid to Afghanistan where almost all the ongoing and future transportation and infrastructure projects came to a halt. This has severely hampered transportation sector throughout the country including urban transportation. Moreover, uncertainty about government national policy, master plans, sector strategies, and migration or removal of professionals from transportation related sector are among other major problems.

As per the media, MOT drafted a new transportation plan to regulate the transportation system in line with Taliban vision, and the particular attention is given on goods transportation to and from overseas, tax charges and financial management to increase the government revenue, although, details of the plan is yet to be publicized. Moreover, ACAA which was an independent budgetary unit was merged with MOT. As for the MOPW, no major changes in the policy and organization structured was noticed however, sections or units established with the support of donors, have been dismissed from organization. The policy from the Ghani government is likely being implemented so far. Apart from some technical staff who might have left the ministry by their own desire, the de facto authority did not expel technical staff from both ministries.

Major changes have been placed in Kabul Municipality (KM) including the leadership, organization structure and the policy for transportation and traffic management. The policy of KM during previous government which was the main in-charge of urban transportation including planning, infrastructure development and operation, has been withdrawn by the de facto authority. Current KM's policy mainly focuses only on roads construction and maintenance. In addition, Taliban dismissed the Traffic Management Board, the authority and responsibility of Traffic police was returned back to MOI while MOT has given the responsibility to look after public transportation policy including planning and operation in Kabul city. The KM organization structure for transportation has also been changed, the position for transportation deputy mayor has been merged with the technical and construction deputy mayor, transportation related directorates have also been integrated and the TOR has largely been modified and limited to certain activities.

KUDF which was prepared by a Boston based company in 2018, is still considered as the official master plan, though KM has recently drafted a Transit Plan based on the Kabul city master plan (2012), revised under the JICA project. The new draft transit plan is not yet approved. As for mode of transportation, Milli-bus Enterprise with having only 50 functional buses, has already failed to respond the needs of Kabul city inhabitants, while the public transportation is largely dependent on informal and/or illegal transportation.

Chapter-4 summarizes the challenges in the transport sector of Afghanistan and proposes required countermeasures to overcome the challenges and improve the land transport sector in the country. The challenges are divided into policy/institutional challenges, organizational & budgetary challenges, and infrastructure challenges.

Overall, vision and policy uncertainty in the transport sector, poor border crossing system & procedures, law enforcement, security, weak organizational systems, lack of coordination & capabilities, poor physical infrastructures, poor maintenance, climate change impact on corridors and lack of required budget, limited railway network, and different railway gauges of the surrounding countries are among the current major challenges in the transport sector.

Positive dealing of the de facto authority with the international community particularly CAREC and ADB to resume back their supports in the transport sector, the establishment of a standard infrastructure asset management system in the transport-related ministries, development and implementation OSBPs system, revision of MOPW role, establishment of working groups in MOPW for urgent road maintenance, installation of traffic signs, equipments and devices to improve road safety, conducting urgent surveys for identifying vulnerable areas of climate change and taking the required countermeasures are proposed to overcome the current challenges in the transport sector.

Finally as the priority project, capacity development for the management of national highways and public transport systems in Kabul city is proposed based on the series of studies and unofficial interviews with relevant organizations which will have a significant impact on the improvement of the transport sector of Afghanistan.

CHAPTER 1 ROAD AND TRANSPORTATION DEVELOPMENT IN AFGHANISTAN AT A GALANCE (2001-2021)

1-1 Road and Transport Overview

Afghanistan is geographically landlocked and mountainous country with many complicated and complex terrain which has no direct access to sea transport routes. This has had a significant impact on the slow economic development process of Afghanistan and has also made the country dependent on neighboring countries (Pakistan and Iran) in the field of trade, which has hindered the growth of the country's exports. Therefore, the transport network and its development has been one of the most important components and indicators of social and economic development in Afghanistan. It is because transport is essential for socio-economic development, economic growth and poverty alleviation, sustainable agricultural intensification, transporting agricultural and industrial products to national consumers, regional and international markets, and finally transporting passengers to and from national and international destinations.

As a landlocked country with an estimated population of more than 40 million dispersed across the largely mountainous terrain of 652,000 square kilometers (km²), and without many viable alternative transport modes, roads are the principal means of transport.

On the other hand, Afghanistan's terrain with its unique geopolitical value to the region and being the only route between Central and South Asia, offers a potential transport platform that can develop existing challenges into golden unique opportunities.

In this regard, the Ghani government overall policy was to expand the regional integration process "transforming Afghanistan to transit center of commercial goods, between Asia and other countries". This strategic position could make Afghanistan the center of regional transport hub. However, the most important and effective component to use this opportunity is to have a transportation system that is safe, stable, standardized and reliable.

In addition, Afghanistan is a country with important natural resources which worth more than US\$ 3 trillion. Development, extraction and transfer of these resources to domestic and foreign markets requires a reliable and effective transport system in order to increase the government's income and on the other hand to facilitate the extraction and transportation of these resources. In these respects, the development of the transport sector is one of the most important factors for sustainable development in Afghanistan.

The Afghanistan's transportation system consists air corridors, rail ways, road transport and inland waterways (It is limited to the Amu Darya and its tributaries with the only formal operating inland port at Shirkhan Bandar). The country's road network comprises about 3,300 km of regional highways, 4,900 km of national highways, 9,700 km of provincial roads, 17,000–23,000 km of rural roads, and 3,000 km of urban roads, including 1,060 km in Kabul. The Ministry of Public Works (MOPW) is responsible for highways and provincial road works, while the Ministry of Rural Rehabilitation and Development (MRRD) oversees rural roads. The Ministry of Transport (MOT) is tasked with transport law, rules and regulation for transport services for trucks, buses, aircraft and others.

At the end of 2001, after 20 years of conflict, baseline assessments suggested that more than 90% of the transportation system was damaged and in a poor condition. The conflict, effect of the military actions combined with a prolonged lack of maintenance, had resulted in damage to major sections of roads, critical structures, bridges, and the snow galleries on the approach to the Salang Tunnel. According to the condition survey undertaken in 1994, 17% of the network was in good condition, 35% in fair condition, and the remaining 48% was in poor condition. The situation deteriorated since then and road conditions survey in 2001 indicated that more than 80 percent of highways either were in poor condition or deteriorated.

After establishment of Interim Administration in 2001, the government and its development partners invested about \$4.5 billion in the restoration and improvement of the country's transport infrastructure and institutions from 2002-2021.

In this chapter, key achievements in developing policies, international communities' commitment and supports, major achievements in transport sector and finally the challenges during the last 20 years are discussed.

1-1-1 National Policies, Strategies and Master Plans

The joined overall policy of Afghan government together with international partners for Afghanistan's rehabilitation, are divided into two major periods; UN-led period of Transition (2001-2014), and Transformation Decades (2015-2025).

In Bonn conference (2001), international society together with Afghan representatives agreed to consider a period of transition where international community provided technical and financial supports for Afghanistan to build security forces, improve basic infrastructures for transportation, education, health etc. and to build human resources so that Afghans are stand on their own feet to run and build the economy.

More than 10 international conferences on Afghanistan peace, reconciliation and rehabilitations were hold during the last 20 years, where billions of dollars were pledged and/or donated to Afghanistan. The exact amount of donated money is not clear, roughly a total of US\$ 77.2 billion was pledged only in international conferences, while some donors who made multi-year pledges and commitments separately at various time frames, are not included. This is also apart from the amount of \$145 billion by United States for rehabilitation and amount of US\$ 837 billion provided alone for military purpose and assistance. Moreover, several government major policies were developed, summary of them are explained in a chronological order in Annex-I. Here the most important and relevant conferences and policies related to transport sector are discussed.

1-1-1-1 The National Development Framework (NDF)¹

The 1st Donor International Conference on Reconstruction Assistance to Afghanistan was held, in Tokyo in 2002 including 69 countries and international organization representative. The Conference provided an opportunity to reaffirm its determination to pursue the process of reconciliation, reconstruction and development of Afghanistan, according to the Bonn Agreement. In order to absorb the international donation, Afghanistan Interim Administration (AIA) developed the NDF for Afghanistan rehabilitation and reconstruction, which according to that reconstruction of Afghanistan estimated US\$15 billion over the next decade. The cumulative amount of 4.5 billion US dollars commitment in Tokyo conference was announced for 2002-2006 with 1.8 billion US dollars to be provided in 2002. Out of the total amount, only in the infrastructure improvements included Transportation and road network prioritized in NDF, a total amount of up to 1.9 billion was allocated.

Tokyo conference followed by London Conference for Afghanistan in 2006 by developing The Compact², which provided a clear vision for Road and Air Transport as follows:

Roads: Afghanistan will have a fully upgraded and maintained ring road, roads connecting the ring road to neighboring countries by end-2008 and a sustainable system for road maintenance by end-2007.

Air Transport: By end-2010, Kabul International Airport and Herat Airport will achieve full International Civil Aviation Organization compliance; Mazar-i-Sharif, Jalalabad and Kandahar will be upgraded with runway repairs, air navigation, fire and rescue and communications equipment; seven other domestic airports will be upgraded to facilitate domestic air transportation.

1-1-1-2 The Afghanistan National Development Strategy (ANDS), 2008-2013³

As per the agreement in London conference, ANDS was developed for the period of 2008-2013. It was Afghan-owned blueprint and a comprehensive strategy for the development of Afghanistan. It had three main pillars; 1) Security 2) Governance, Rule of Law and Human Rights and 3) Economic and Social Development. ANDS was a Millennium Development Goals (MDGs) based road map for developing the country's transport sector. Pillar 3 insisted on a safe and integrated transport network that ensures domestic and international connectivity by moving people and goods reliably and at low cost.

1. Afghanistan, NDF, 2002. Available on: <http://www.kabul-reconstructions.net/images/ndf.pdf>

2. Afghanistan, The Compact, 2006. Available on: https://www.diplomatie.gouv.fr/IMG/pdf/afghanistan_compact.pdf

3. Afghanistan, ANDS, 2008. Available on: <https://mof.gov.af/sites/default/files/2021-05/ANDS.pdf>

In 2010, the ANDS was refined and updated with a more specific list of priority programs and projects. As part of ANDS, National Regional Integrated Resources Corridor Initiative (NRIRCI) was developed, which prioritized project demands versus estimate and fund resource availability.

Much of the ANDS and the subsequent refinement documents (NRIRCI), focused on the road subsector with the following priorities to: (i) upgrade and maintain the Ring Road, (ii) provide improved cross border roads to neighboring countries, and (iii) establish a fiscally sustainable system for road maintenance using private contractors as much as possible.

The ANDS also called for 40% of all villages to be connected by all-season roads to the national road system and 40% of all roads in municipalities to be improved to a good standard. The multilateral development partners provided significant assistance in the transport sector and directed their future supports accordingly.

The Afghan Government and the International Community met in London on 2010 followed by 2nd International conference in Tokyo in 2012 to reaffirm and further consolidate their partnership from UN-led period of Transition (2001-2014) to an Afghan-led and –owned Transformation decade (2015-2024). The Tokyo Conference, established a renewed stronger foundation for partnership to support sustainable growth and development of Afghanistan throughout the Transformation Decade (2015-2024).

In 2014, Mr. Mohammad Ashraf Ghani was elected as a new president, which was a turning point toward Afghanistan overall development policy in general and to transform Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region, in particular. With the new establishment of new government, Afghanistan entered to Transformation period (2015-2024), which aimed to lead the country independently while international community would provide financial assistance and technical advices.

1-1-1-3 Afghanistan National Peace and Development Framework (ANPDF-I&II)¹

The National Unity Government announced the Afghanistan National Peace and Development Framework (ANPDF-I) 2017 to 2021. The overall vision of ANPDF was to achieve self-reliance and improve the welfare of the people of Afghanistan. Its main goal was to reduce poverty and improve people's welfare, while other goals included building the legitimacy and effectiveness of the state and achieving sustainable job creation and progress toward the Sustainable Development Goals.

National Infrastructure Plan (NIP) was developed for (2017-2021) to assist in achieving the government's ANPDF vision, as these priority infrastructure investments combined with human capital development and enhanced regional connectivity, provide the essential building blocks for Afghanistan's future economic growth, employment and social development.

ANPDF-I was improved and developed to ANPDF-II (2021-2025), with three main pillar including Market-Building. The main objective of this pillar was to transform Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region, where comprehensive and effective short-term, medium-term and long-term projects for the development of transportation (roads, highways, and railways) was given the top priorities.

1-1-1-4 Afghanistan Transport Sector Master Plan Update (2017–2036)²

In line with ANPDF, Transport Sector Master Plan which was prepared in 2006, was updated with a technical support provided by Asian Development Bank (ADB). The updated master plan comprises of four main chapters; Transport sector assessment, Transport sector strategy and Transport Road Map and Frame work. The resources required to achieve the plan's goals were mentioned to be substantial, with an estimated investment of about \$26 billion for the 20-year period.

All the above-mentioned strategic documents agreed that integrated transport network infrastructure investments that are systematically planned and implemented, focused on facilitating the country's economic growth and development. This will expand access to domestic, regional, and international markets and social services, increasing employment, and promoting trade, transit and logistics.

The backbone of the transport network in Afghanistan is the road sector that plays an important part in achieving connectivity and integration. The ANPDF 2017-2021, NIP 2017-2021, as well as the

1. Afghanistan, ANPDF. 2017. Available on: <https://www.refworld.org/pd/fid/5b28f4294.pdf>
2. Transport Master Plan. Available on: <https://www.adb.org/sites/default/files/institutional-document/327561/afg-transport-plan-2017-2036.pdf>

Transport Sector Masterplan, guided the Ministry of Public Works (MOPW) to undertake a major body of work in regards to transport infrastructure development.

1-1-1-5 Ministry of Public Work Strategy, 2019-2023¹

In line with the above-mentioned strategic documents, the MOPW developed the strategic plan (2019-23) that has mainly focused on ensuring road sector investment, improving road networks access and coverage, and enhancing road safety.

The 1st and 3rd pillar of the document illustrates the plans and objectives of the ministry with respect to institutional reforms and capacity building, and road safety, whereas, the 2nd pillar illustrates the plans and objectives of the ministry with respect to road networks planning and development. That is the planning and development of Afghanistan's primary, secondary, and tertiary road networks. To achieve the goals of road sector strategy, about \$ 4.13 billion over the next five years was mentioned to be allocated.

1-1-1-6 Ministry of Transport Strategy, 2019-2023

This strategic plan has four main chapters; A Review of Transport Services including opportunities and challenges; Developing Strategic Frame Work, Implementation of Strategic Plan, and Monitoring & Evaluation of the Strategic Plan.

Developing Transportation organizational-institution and infrastructures, improvement of transportation revenue, the principle of transparency and accountability in all processes, improving and strengthening national and international strategic coordination and cooperation, strengthen public transportation including safety, strengthening the policy making process, promotion of public communication, strengthening the participation of the private sector are important parts of this document.

1-1-2 Road Sector Major Achievement

Since the landmark Tokyo Conference on January 2002, with the steadfast and strong support of the International Community, Afghanistan achieved substantial development and made notable progresses in transportation sector. The multilateral development partners providing significant assistance, i.e., the United States Agency for International Development (USAID), the Asian Development Bank (ADB), World Bank, Japan International Cooperation Agency (JICA), European Commission and bilateral donors (United States, Japan, Saudi Arabia, Italy, Sweden, Iran, and Pakistan). The investments begun to come in the national highways, national ring roads, provincial and local roads interfacing Afghan cities and districts.

Although the Afghan government and international donors established the goal to complete Afghanistan's regional highway network by the end of 2008, as of February 2008 about 60 percent of the network was completed. International donors completed construction of about 2,700 kilometers of regional and national highways in Afghanistan since 2002-2008, but limited information is available on the status of provincial and rural roads and various challenges had delayed road construction. Due to several factors, ring road rehabilitations was completed with 7-year delays in 2015 (Figure 1-1-1).

According to Special Inspector General for Afghanistan Reconstruction (SIGAR) report, overall 40,000 km of provincial & rural roads and more than 5,000 km of highways have been rehabilitated or improved over 13 years during 2002-2015. The major regional and national highway projects are summarized in Table 1-1-1.

Overall, positive signs and strong evidence of usefulness of these investments, particularly roads, indicated that they stimulated economic growth and lowered provincial disparities compared to 2001. Furthermore, improved network of regional, national, provincial, and rural roads benefited the local communities connecting to local and national markets, access to education, health, and other social services. Afghanistan's external trade nearly quadrupled from \$2.2 billion in 2003 to \$8.6 billion in 2013 with an average annual growth of 21%

1. MOPW, Road Sector Strategy. <https://mot.gov.af/sites/default/files/2019-09/Road%20Sector%20Strategy%20Eng.pdf>

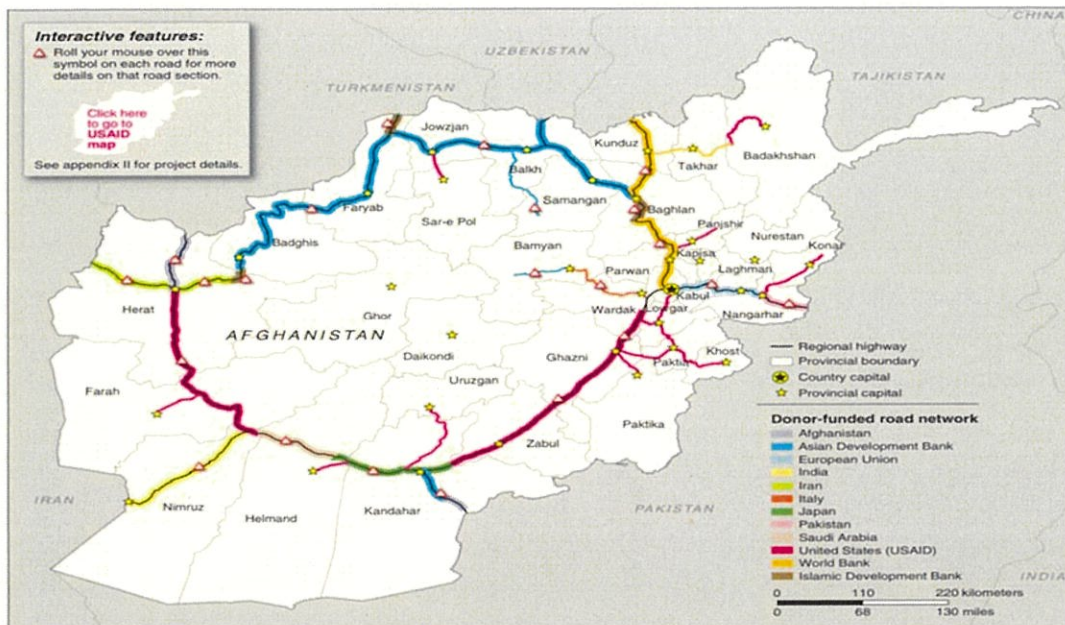


Figure 1-1-1 Donor-Funded Regional and National Highways in Afghanistan¹.

The supports of major multilateral development partners and bilateral donors, which contributed in reconstruction of ring road and major highways are summarized below.

1-1-2-1 United States/USAID Supports

The U.S. government spent 20 years and overall, \$145 billion trying to rebuild Afghanistan, its security forces, civilian government institutions, economy, and civil society. The Department of Defense (DOD) also spent \$837 billion on warfighting and bringing stability to Afghanistan¹.

As the major funding country, the United States, through programs initiated by USAID and DOD, spent approximately US\$2.8 billion on building and maintaining Afghanistan's road infrastructure, while implemented more than \$150 million in road operation and maintenance to improve the MOPW technical team capacity to independently maintain and managed the constructed roads.

Since 2004 till 2015, the United States, through USAID/DOD, completed followings:

- 715 kilometers of the regional highways. In addition, it also managed the construction for the 115-kilometer-long Saudi Arabia-funded section.
- 726 kilometers of national highways and provided funds for an additional 300 kilometers.
- 422 kilometers of provincial roads, while 1205 kilometers of rural roads were completed under USAID/CERP for civilian use.
- As for the military purpose to suppress Taliban and other insurgents, an additional 940 kilometers of provincial and rural road were completed under Commander's Emergency Response Program (CERP) funds by Provincial Reconstruction Teams (PRTs).

Summary of USAID major road projects and funding level is shown in Figure 1-1-1 & Table 1-1-1. In addition to road construction, USAID implemented two capacity development projects on road Operation and Maintenance (O&M); Road Sector Sustainability Programs (USD 96 million) in 2002, and Task Order 14 project from 2007-2012 with the value of USD 53 million which was called phase-out investment from construction to maintenance. Both programs designed to assist the government of Afghanistan make the transition through restructuring and reform to self-sustainability in the roads O&M sector. The first project was completed with four components 1) Emergency Road Repair, 2) Technical Assistance (TA), Training and Capacity Building, and 4) Actual Roads O&M assistance, while Task Order 14 project which aimed to establish a functional and sustainable Road Maintenance Unit was stopped in 2012 because the activity was taken over by world bank

1. Afghanistan Reconstruction. United States Accountability Office (GAO) report, 2016.

Table 1-1-1 Donor-Funded Ring Roads/Regional and National Highways 2001-2015

No	Name	Length (km)	Donor	Funding US\$ Million
1	Kabul-Kandahar (Section B to F)	389	USAID	311
2	Kabul-Kandahar (Section G)	50	Japan	29
3	Kandahar-Herat (Section 1)	114	Japan	100
4	Kabul-Jalalabad (One section)	...	Japan/ADB	81
5	Kandahar-Herat (Section 2)	116	Saudi Arabia/USAID	65
6	Delaram-Zaranj	216	India	84
7	Kandahar-Herat (Sections 3 to 5)	326	USAID	181
8	Herat-Islam Qala	120	Iran	45
9	Herat-Armalik	60	Iran	25
10	Herat-Torghondi	119	Afghanistan	30
11	Armalik-Lemanb	50	Islamic Development Bank (IDB)	10
12	Leman-Bala Murghab	143	Asian Development Bank (ADB)	176
13	Bala Murghab-Qaysar	90	Asian Development Bank (ADB)	55
14	Qaysar-Andkhoy	210	Asian Development Bank (ADB)	75
15	Andkhoy-Mazar-e Sharif	182	Asian Development Bank (ADB)	36
16	Mazar-e Sharif-Pol-e Khomri Hayrata	265	Asian Development Bank (ADB)	34
17	Feasibility Study and Detailed Design for Salan Corridor Upgrade	...	Japan/ADB	31.37
18	Mazar-e Sharif to Khulm, and International road bound for the border of Uzbekistan (from Naibabad to Havratun)	57, 75	Japan	20
19	Andkhoy-Aquina	37	Islamic Development Bank (IDB)	20
20	Pol-e-Khomri-Kunduz-Sher Khan Bandar and Kunduz-Taloqan	232	World Bank	30
21	Pol-e Khomri-Kabul	202	World Bank	68
22	Pol-e Khomri-Doshi	...	Islamic Development Bank (IDB)	...
23	Kabul-Jalalabad	142	European Commission	66
24	Jalalabad-Torkham	74	Pakistan	50
25	Kandahar-Spin Boldak	61	Asian Development Bank (ADB)	25
26	Kandahar-Spin Boldak	42	Japan/ADB	13
27	Kabul-Gardez	120	USAID	47
28	Gardez-Khost	98	USAID	69
29	Lashgar Gah-Ring road	49	USAID	13
30	Ghazni-Sharan	63	USAID	20
31	Pol-e Alam-Ring road	35	USAID	7
32	Farah-Ring road	68	USAID	18
33	Panjshir Valley road	67	USAID	21
34	Ghazni-Gardez	102	USAID	63
35	Sheberghan-Sar-e Pol	54	USAID	15
36	Keshim-Feyzabad	103	USAID	118
37	Kandahar-Tarin Kowt	149	USAID	25
38	Jalalabad-Asmar	121	USAID	38
39	Mazar-e Sharif-Dara i Suf	151	Asian Development Bank (ADB)	69
40	Yakawlang-Bamyan	99	Japan/ADB	59
41	Maidanshahr-Bamyan Segment 1	54	Italy	31
42	Maidanshahr-Ounai Pass Segment 2	82	Italy	72
43	Taloqan-Keshim	68	World Bank	22
44	Kandahar-Bikah	94	USAID	24
45	Spin Boldak-Bikah	68	USAID	20
46	Bikah-Shinkay	71	USAID	13

Source: Afghanistan Reconstruction. United States Account. Office. (GAO) report, & Japan Assist to Afghanistan.
<https://www.mofa.go.jp/files/000019264.pdf>

The reduction in travel time due to the improved regional roads has reportedly increased the frequency of personal trips and domestic trade, but lack of proper maintenance by MOPW has resulted that the roads are being deteriorated (Table 1-1-2).

Table 1-1-2 Actual Travel Time Taken by a Four-Wheel-Drive Vehicle on Major Roads*

Road	Length (km)	2001		2010		2021	
		Travel Time (hours)	Average Speed (km/hr)	Travel Time (hours)	Average Speed (km/hr)	Travel Time (hours)	Average Speed (km/hr)
Kabul - Torkham	227	6.5	35	4	57	4	57
Kabul - Kandahar	506	20.0	25	12	42	18	28
Kandahar - Spin Boldak	105	2.5	42	1	105	1	105
Kandahar - Herat	560	8.5	66	7	80	8	70
Kabul - Mazar-e-Sharif	399	15.0	27	6	67	10	40
Mazar-e-Sharif - Hairatan	57	2.0	29	1	48	1.5	38
Pol-e Khomri - Shairkhan Bandar	164	12.0	14	7	23	9	18
Kabul-Gardiz	124	4	31	2	62	2	62

*The data for 2001 was extracted from ADB-Transport-Sector report, while the data for 2010 & 2021 were collected based on actual interview from drivers on each line.

1-1-2-2 Asian Development Bank (ADB) Support

ADB has been the 2nd largest donor with an investment of more than \$1.9 billion, particularly, for improving 1,100 kilometers (km) of regional and national highways in the nation's transport sector during 2003–2015 (Figure1-1-1 & Table1-1-1).

ADB support (financed by the Asian Development Fund (ADF)) and AITF co-financing accounted for 38% of the total external assistance to the road sector and 50% of the total ADB assistance to Afghanistan. An additional \$165 million was provided to finance the railway connecting Mazar-e-Sharif to Hairatan, a port city at the border with Uzbekistan. Another \$30 million was used to rehabilitate regional airports. In addition, developing of Transport Master Plan, capacity development on project management, and road maintenance for MOPW technical staff were also included in ADB supports.

ADB had good communication on investment program in Afghanistan's transport sector with other development partners, particularly USAID and JICA to coordinate and harmonize planned future programs and projects as part of the process of increased harmonization in the transportation sector. As a result of coordination with other development partners, ADB created the Afghan Infrastructure Trust Fund (AITF) to pool the resources of various donors. The AITF specifically focused on assisting in the implementation of large projects in the transport, energy, and water sectors. This was the most remarkable intervention in Afghanistan's transport sector and had significantly contributed to the government's development objectives. The investment program's role was both strategic, in meeting the government's priority infrastructure requests, and tactical by supporting MOPW capacity to undertake due diligence, and implement, manage and maintain transport infrastructure.

1-1-2-3 World Bank (WB) Support

The World Bank's engagement with Afghanistan was determined by World Bank Approach Paper-Afghanistan, and the Interim Strategy Note (ISN), which were closely aligned with the government's ANDS.

The World Bank most remarkable initiative for Afghanistan reconstruction, was development of Afghanistan Reconstruction Trust Fund (ARTF) to receive and organize the funds on behalf of other donors. The ARTF has been a partnership between the international community and the Afghan government to improve the effectiveness of the reconstruction effort. Since early 2002 till 2014, a total of 33 donors contributed over \$6 billion to the fund, making ARTF the largest contributor to the Afghan budget for both operating costs and development programs. World Bank support emphasized national programs that had improved the lives of millions of Afghans across the country, including in the areas of health, education, rural development, and public finance management.

In Road and Transportation sector, WB concentrated on highways/provincial road, rural road and bridges, however, the major concentration was on rural road projects. Followings are the major achievements in

the transportation and road network improvement.

1. Afghanistan Rural Access Project (ARAP): ARAP was one of the biggest WB road improvement and maintenance projects in rural area started in 2012-2018 with the initial budget of US\$ 332 million. This project aimed improvement and maintenance of secondary and tertiary rural roads, construction of bridges, implementation support and capacity building activities.

Component A: Improvement and maintenance of secondary roads (US\$186 million) which was implemented by MOPW comprising improving about 1,250 km of secondary roads; 1000 km of unpaved roads (gravel surface) and 250 km of paved roads.

Component B: Improvement and maintenance of tertiary roads (US\$128 million) implemented by MRRD comprising 1,300 km of the tertiary road network, carry out routine and periodic maintenance on about 2,000 km of priority tertiary road links, and constructed bridges about 1,600 linear meters in length.

Furthermore, establishment of new Geographic Information System (GIS) network planning and roll out of first nationwide inventory and condition survey of rural roads were also provided.

2. National Solidarity Program (NSP) program: One of the most successful programs in rural development and Afghans' livelihood, was establishment of NSP with an initiative and fund by World Bank in 2003.

NSP was on-budget program, implemented by MRRD that provided block grants to communities so that they could invest on the basis of community development plans. NSP helped to establish 46647 Community Development Councils (CDCs) till end of 2015 to implement community-led development projects. NSP worked through CDCs to identify and implement some 82,000 small-scale reconstruction and development activities, providing over 20 million Afghans with services including improved water supply and sanitation, rural roads, irrigation, power supply, health, and education. Almost 20,000 km of rural access roads (village-to-village and village-to-district center roads) have been constructed or repaired, increasing access to markets, employment and social services.

In September 2015, the National Unity Government replaced NSP with the Citizens' Charter, aiming to improve the delivery of core infrastructure and social services to all communities with the mechanisms of sector-wide coordination and involving key ministries such as MRRD, Ministry of Agriculture, Irrigation and Livestock (MAIL), MOPW and others.

As of 2020, a total of 9000 sub-projects mainly infrastructure and rural roads were implemented under Citizens Charter with the value of more than USD 660 million financing under ARTF, and 34 donor partners.

There were other major urban transportation projects for Kabul; KURP, KMDP and KUTEI implemented by WB which are discussed in 1-2..

1-1-2-4 Japan Official Development Assistance/JICA:

Japan government with the goal to support Afghanistan's self-reliance, security stability, rehabilitation and reconstruction of Infrastructure, Health, Agriculture, Humanitarian assistance and capacity development, provided a total of US\$6.9 billion of assistance for the last 20 years.

In the road sector alone, Government of Japan had spent more than USD 220 million as grant aid to improve ring roads, highways at national level. Construction of more than 700 km of major highways/Trunk and Local Roads were supported by Japan government. As depicted in Table1-1-1, the major highways are as follows:

1. Kabul-Kandhar (Section G), 50 km
2. Kandahar-Herat (Section-1), 114 km
3. Kandhar-Spin Boldak, 42 km
4. Kabul-Jalalabad, 156 km
5. Yakawlang-Bamyan, 99 km
6. Mazar-e Sharif to Khulm, and international road bound for the border of Uzbekistan (from Naibabad to Hayratun), 132 km

In addition, JICA had a remarkable contribution in the urban development and urban transportation sector mainly in the capital city of Kabul, which is separately discussed in section 1-2.

1-1-2-5 European Union

Since 2002, the EU provided more than €4 billion in development aid to Afghanistan, making it the biggest recipient of EU aid in the world. At the 2020 Afghanistan Conference held in Geneva, the EU promised another €1.2 billion in financial aid to Afghanistan for the 2021-2025 period. Development cooperation has now been suspended since August, 2021.

As in the transport sector, EU largest project was Maintenance of Kabul – Jalalabad Road. This maintenance work was conducted on the rehabilitated section of the road between Kabul and Jalalabad over a length of 142 km, and was comprised of routine, emergency and winter maintenance. The project duration was from 2006-2009 which included On-the-Job training of MOPW technical staff as well.

While there have been several areas of improvement in transportation, still much remains to be done to improve regional integration, national connectivity, and access to local and national markets. In addition, the prospects for sustaining this progress have been uncertain and doubtful, particularly after 15 August, 2021.

1-1-3 Railway Transport

Afghanistan provides the link between Central Asian and South Asian countries, so the country can play a vital role in intraregional trade. The development of a multimodal complementary relationship between road and rail infrastructure is crucial for supporting import and exports of commodities with regional countries and as well as mine extraction industries and using the mineral wealth of the country to boost economic development. Given its position in Asia, Afghanistan presents significant opportunities for future rail network development. Despite the importance of railway transport for the Afghanistan, the total length of railways in the country is only about 104 km, which includes Hairatan to Mazar-e-Sharif railway line (75 km), Aqina station (16 km) and Turghundy Station (13 km). A nationwide railway network was planned by the Afghan government in the past 20 years with the help of the international community. Pre-feasibility or feasibility studies for most of the planned railway network were completed and the next stages were execution. The country has planned to construct over 5000 km of railway track, 4 dry ports and 8 multimodal hubs. The plan was included 574 km of central corridor, 665 km of North–Southeastern Corridor, and 1831 km of Northwestern–South–Southeastern Corridor and 1970 km of Northwestern–North–Northeastern Corridor.

To support the sector, the government established a railway authority, Railway Law was also enacted, however; the country still needs a railway strategy and significant improvements in operations and maintenance capacity. Detailed explanation on railway network and its master plan is discussed in Chapter-II.

1-1-4 Major Challenges:

Despite the achievements gained largely from infrastructure interventions with the remarkable supports of international donors, the transport network remains incomplete and is far below the completeness levels achieved by its neighbors.

There were several political, technical and financial challenges which burdened or at least caused a slowdown in the improvement of transport sector from 2001 to 2021. Security instability, existence of Taliban and other insurgents' groups, lack of centralized strong government and corruptions were counted as the major political and administrative challenges. Followings are some technical major challenges:

- Lack of appropriate authorities to regulate the subsectors in a coordinated manner with mandates to manage, coordinate and supervise large projects. Although the government established independent authorities but due to miss-leadership and political issues, the authorities failed to comply with the mandates and responsibilities.
- Budget dependency (90%) on international donors, and their failure in paying what they already

pledged.

- Significant delays in project implementation due to a lack of government capacity to coordinate funding from planning and design stages through to implementation.
- Fragmentation and lack of proper coordination among the donors, differences in project preparation standards, which in some cases resulted in reassessments of project design and duplication of efforts.
- Some projects were too large and complex for any single development partners to handle on their own capacities.
- Security of contractors and consultants on remote project sites remained problematic.
- Truck overloading was another major problem that will reduce the engineering design life of the constructed roads.
- Sustainability and Road Maintenance remained above all the major technical challenges and it has been underestimated both by international donor and the government.
- Although, the number of required machineries and equipment were considerable for road maintenance in recent years, professional handling, functionality and proper maintenance of these machineries are also remained as another challenge.

1-2 Urban Road and Public Transportation Overview

1-2-1 Introduction:

Kabul is the capital and largest city, which is located within the north east portion of Afghanistan. Kabul is one of the highest capitals in the world, at an elevation of almost 1800 meters. The city has 22 separate districts, and is also the most diverse city in the country, in terms of population and ethnic groups.

Kabul is the only city in Afghanistan with a population in excess over 5 million, and has been considered as one of the fastest growing cities in the world. The population of Kabul city has increased from 2.2 million in 1999 to 4.2 million in 2008 with a growth of 10% and is now about 5.4 million (NSIA, 2021-2022) and it is predicted to increase to over 6 million in 2025. Meanwhile, the city area in this period expanded by 4.1 times from 250 sq.km to more than 1,022.700 sq.km.

The city can be accessed by air or land transport. Most of the trips made to/from Kabul are by land transport as the city is well connected to numerous other major cities by means of the national highway system and there is no railroad access.

As a fact, it is the only capital city in the world that still does not have basic urban services such as water and sewage systems, gas and heat distribution and, above all, public transport. The city lies in a mountainous area, where the main arteries must bypass high mountains. There are no tunnels, multi-level junctions, traffic signaling systems. Lack of parking spaces in the city, non-compliance with traffic regulations, narrow roads in some places, non-professional drivers and passengers, weak power of the law, lack of awareness and responsibility of citizens and many other factors have been contributing in increasing traffic problems in the city. On the other hand, more than one million vehicles are operating in Kabul. The concentration of major urban activities such as government buildings, market places, public authorities, schools and even hospitals in a congested area in the central part of the city is another factor in worsening of the city's traffic situation.

1-2-2 Modes of Urban Public Transportation, Achievements and Its Challenges

Since 2001, different sorts of vehicles are utilized for public transportation services, such as standard size buses, minibuses, minivans, shared private small cars, taxis, and motor-rickshaws. These are by in large and exceptionally terrible conditions since they comprise of ancient fleets and poor maintenance.

Public transport system in Kabul consists of mainly two groups, formal and informal public transport. The formal refers to a public transport service that is operated and regulated by the government. The Milli bus Enterprise is the only transportation mode operating in the city as a government-run bus service while informal public transport refers to a service that is usually operated by the local private agencies or individuals and does not necessarily comply with the government rules and regulations. In the absence

of proper formal public transport in different parts of the city, the informal public transport has been giving on-demand services and has increased the mobility options of the city, which account for over 90% of mass transportation services provided to Kabul residents. These services are very common in places where conventional bus service is inaccessible, unreliable, irregular or non-existent. Informal public transport is very common in Kabul and gives a cheap and efficient choice of transport mode to the users. Information and current status of the formal and informal modes of public transportations are discussed in the following sections.

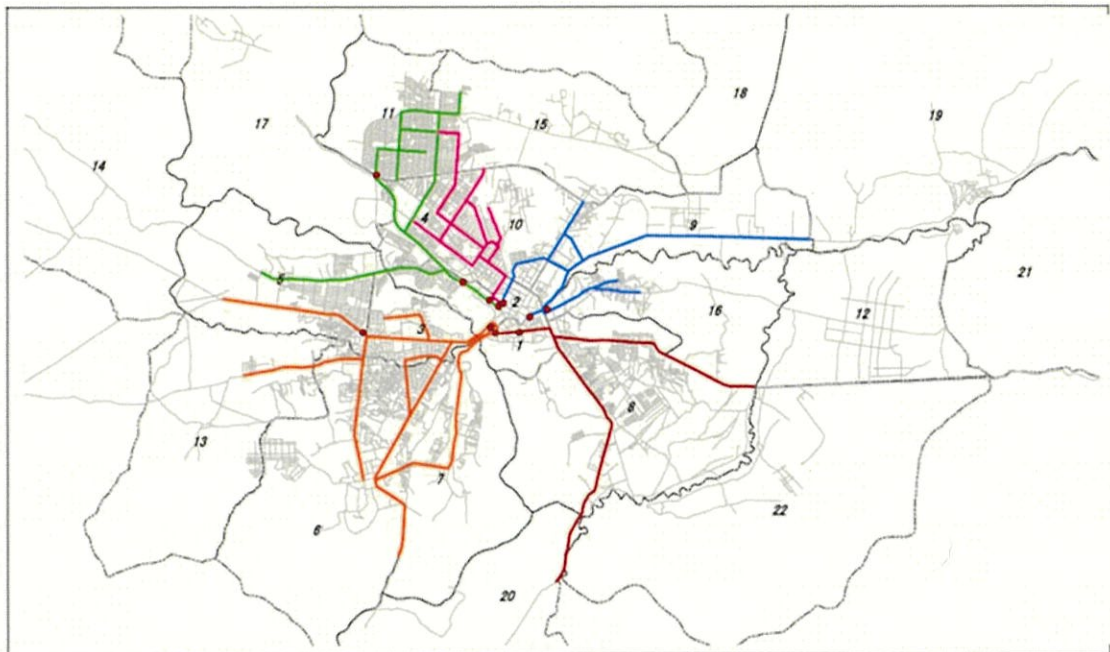
1-2-2-1 Milli Buses:

In Afghanistan, urban public transport services have been functioning for six decades by government and private sector in a basic, non-standard, and irregular manner with a focus to Kabul city. In Kabul city, the urban bus service consists of 54 routes based on 10 terminals throughout the city (Figure 1-2-1). The bus routes mostly start from the city center and extend towards suburbs. The total length of these bus services is 473 km, making the average service length at around 8.8 km for each route. The density of serviced length is 1.6km/km², close to the average density of arterial roads in the city.

The first public transport service was established in 1960. After 14 years of weak services under the Ministry of Finance, the company was transferred to the Ministry of Transportation and named Tasadi Milli Bus (Milli Bus Enterprise).

In 1980s, Milli Bus Enterprise to some extent satisfied the needs of the residents of Kabul from the view point of public transportation services. At that time, The Enterprise had around 1,000 normal buses and about 80 active trolley buses mainly in Kabul city and 19 other provinces.

As a result of long-lasting civil war, most buses and trolley buses of public transport were scrapped, the organization was gravely harmed, experienced staff misplaced from their occupations, and since that point, and sufficient consideration has not been paid to the urban public transport system and its reestablishment.



Source: Kabul Metropolitan Area Urban Development Master Plan, JICA, 2009

Figure 1-2-1 Bus Routes Network and Major Bus Terminals

It was reported that, after the Taliban previous regime ended in 2001, only 50 buses were operating in Kabul. After establishment of new government, rehabilitation and reconstruction of urban transport sector was boosted and it has been headed for corporatization. As a first attempt, India provided 269 buses in 2003 with a pledge of providing 1000 buses in 10 years. JICA supported the provision of 115 buses and establishment of 252 bus stops along Kabul's city routes and at the airport during 2003 to

2004. In 2005, Pakistan donated 35 buses, while Uzbekistan also donated 25 busses to Milli-bus. In 2007, Milli Bus Enterprise had 1050 buses in total which indicated a drastically increase in number of buses since 2001. However, in 2014 it was reported that many of these buses were not operational as they had fallen into disrepair and since most of these buses were imported, the lack of spare parts and proper maintenance system hindered their repair operations (Figure 1-2-2).



Figure 1-2-2 A. Functional Buses Donated by JICA B. Scrapped Buses Due to Lack of Proper Maintenance

Under the National Institution Building Project of the United Nations Development Fund, a maintenance department was established in Milli Bus Enterprise, officers and engineers were given training in maintenance of buses as well as other fields such as drivers training by Indian automotive major Tata Motors. In 2018, the government of India agreed to provide financial assistance of US\$ 2.87 million to Afghanistan's transport network for establishment of a proper maintenance system and to repair 350 public buses, and donation of more new buses. The Milli Bus enterprise had a total of 1,380 buses in 2018 which was recorded as the highest number since 2001, however due to lack of proper maintenance less than 40 percent of them were functional. By end of 2020, it was revealed that more than 800 buses donated over the past decades have gone largely unused due to maintenance issues (Figure 1-2-3). Weak performance of Milli bus enterprise, lack of coordination, mismanagement, and the absence of effective policies and procedures for the operation and providing services and above all, lack of proper maintenance system, the Milli Bus enterprise did not improve the general situation of transport in Kabul.

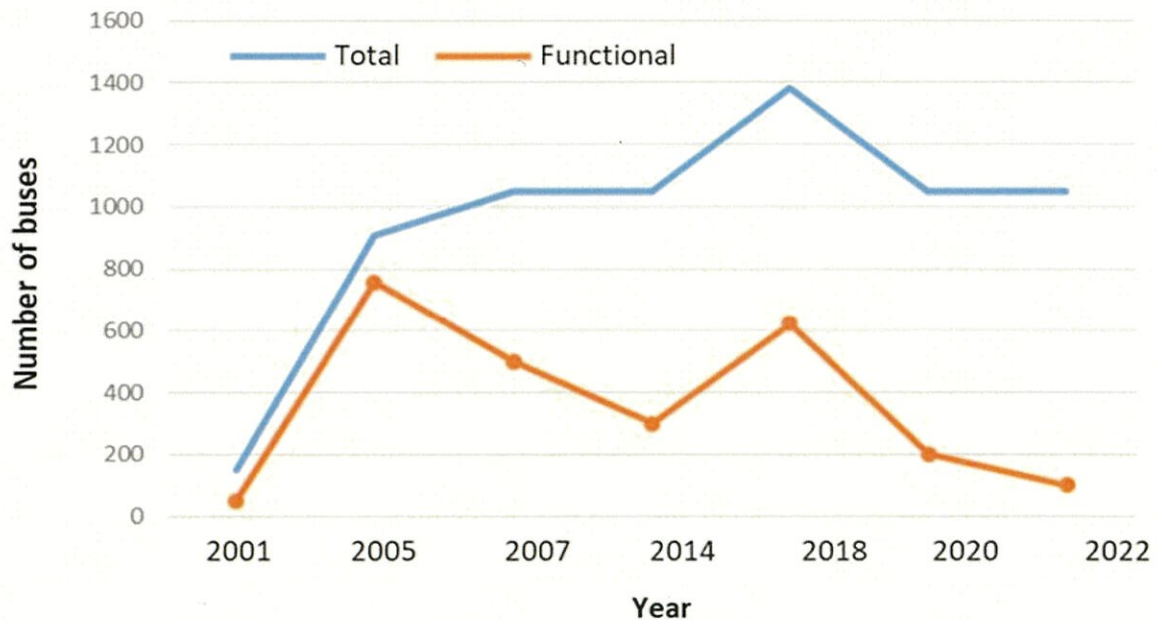


Figure 1-2-3 Total and Functional Buses Number Over Period of 20 Years.

The data shown in Figure 1-2-3 indicated that estimated US\$100 million of international society support

in the public transportation has been wasted, and once again it turned back to the situation as existed 20 years back.

In 2020, KM leadership took a new initiative by repairing and introducing of old military buses as means of public transportation to serve Kabul citizen (Figure 1-2-4). KM started the operation only with 6 buses and it was planned that 200 buses will eventually operate in the city along 16 routes in the city. This plan also did not work, since the military buses were too old to be repaired and operated as public transport busses in the city.



Figure 1-2-4 Old-Repaired Military Buses as a New Public Transportation Approach

1-2-2-2 Private buses:

There is no doubt that the private sector can play a major and fundamental role in providing public transport services. As per the information from the MOT in 2018, there have been 17 private companies and transportation associations which had 2,475 vehicles, and 7 private taxi companies having 4123 taxis were registered. However, the number of actual vehicles operating in the city had been much less than the number of vehicles registered within MOT.

There is no statistical data available for the exact number of private buses operating in Kabul out of 44,924 registered in Kabul back in 2020. Along with these private and irregular public buses, few private city transportation companies were also developed.

Live-star AL Yusuf City Transportation Company was founded in Kabul in 2008, which was an individual owned bus company. The company contracted with German Mercedes Benz to import two hundred buses to Kabul city from which a total number of 80 vehicles reached to Kabul in 2008-2009 (Figure 1-2-5). This company started its activity on basis of legal procedures in coordination with MOT. There was another private company called “Kabul-cub” providing similar public transport services like Live-star in a relatively small scale.

With 1 to 2 years of operation, both companies failed and stopped operation. The main reason was lack of an independent public transportation authority to help and support the private sector. There have been several governmental organizations such as Kabul Municipality, Milli bus Enterprise directorate, City Services Directorate of MOT which interfere public transportation services of private companies. There was no cooperation and proper coordination between these organization to work and support private sectors. Traffic jam, lack of urban culture and proper usage, lack of law-enforcement etc. were perhaps some other reasons contributing behind this failure.



Figure 1-2-5 Al Yusuf City Transportation buses in Kabul city, 2008. A. Large Buses. B. Minibus

1-2-2-3 Minibus

There are large number of private van minibus with a capacity of max 15 passengers which independently operate in almost all routes. Apparently, Kabul police department is likely to manage them but actually there is no proper system in place, no proper stations. Except central or VIP areas (previously known as green zone area), their movement is everywhere around the city. The fare is also affordable 10-20 Afs (20~40 yen) per passenger. Although, all these types of cars are registered as public transport vehicle, most of them are operating independently or being managed by a company without any regulation from the traffic department.

There are also “small vans” with capacity of 10 passengers with the private plate number which carry passengers illegally. These types of small vans are also operating as one of main means of public transport inside Kabul city, without any regulation or specified route by traffic or other relevant organizations.

1-2-2-4 Taxis and Private Small Cars

The number of registered taxis at the national level was 192,400 in 2020 as per the Afghan Statistical Yearbook 2020. Moreover, according to National Statistics and Information Authority (NSIA) around 1,183,748 privately owned small cars are registered all over Afghanistan and more than 600,000 are registered only for Kabul in 2020. Although there is no exact data about number of private illegal/informal passenger cars and official taxis in Kabul city, it is said to be more than 100,000. In 2002, the country-wide registered number of such taxis were reported as 29,131. Hence, a considerable increment has taken place putting with 16-20% growth per annum.

1-2-2-5 Online Taxi services:

BBR Taxi services: BBR (The abbreviation of a Persian word meaning “Carry”) initially started as a ride-hailing, online taxi business in 2018. The main aim was to connect drivers with passengers through a smartphone application. BBR operated as an online, easiest and most reliable e-commerce platform. BBR’s online taxi used to offer 24 hours Taxi service in Kabul city with over 500 active drivers which was considered the safest transportation option for Kabul residents. In addition, BBR offers daily and hourly rental cars with three different car options (Economy, Comfort, and Business).

24/7 Taxi Services: Afghan Logistic and Transportation company provided a standard taxi and airport drop/pick up services in Kabul from 2008. It offered 24 hours services both with soft skin and armored taxis and was reachable via phone call or mobile phone application. There were similar other companies/mobile application such as Faxt, Zood and Echo which were functioning similar as BBR.

The BBR or other online taxi services stopped functioning due to the overall deteriorated economic situation in the country and being less effective and profitable. The second reason was that private cars, being used as public transport, were easily accessible and passengers could catch them everywhere along the streets around city without being awaited for 10-15 minutes. The third reason was lack of smart phone usage by the public and unfamiliarity with the taxi online services, application as well as less

availability of internet on the smart phones to the public.

1-2-3 Kabul Municipality and Establishment of Dehsabz-Barikab City Development Authority (DCDA)

Kabul Municipality (KM) functions independently under the order of the president of the government and implements its duties in accordance with law of municipalities, master plan and sector strategy. Basic functions of KM are as follows:

- The construction and maintenance of Kabul city related public buildings, canals, and other facilities.
- The transportation infrastructure improvement includes; construction and maintenance of roads, bridges, and the city bus station, construction of sidewalks, construction of bicycle paths, improvement of intersections, Road marking etc.
- Other responsibilities include; Regulatory affairs including solid waste management, city greenery affairs including creation and improvement of parks and green areas, and the citizen cultural awareness and programs.

In 2006, the Afghan former president (H.E. Mr. Hamid Karzai) established the independent board for Kabul New City development with the aim to expand existing Kabul City to northern Dehsabz area. With the technical support by JICA under Promotion of Kabul Metropolitan Area Development Project, Dehsabz-Barikab City Development Authority (DCDA) was assigned under the mentioned board to lead the process of building the new city in the north of existing Kabul city. Major technical achievements of the DCDA related to transport improvement includes:

- Development of Master Plan for Kabul Metropolitan area focusing on the new city
- Development of Structure Plan for Phase-1 of Kabul New City
- Preparation of Development Plan for the Parcels in Phase-1

Remarkable technical achievements were gained for new Kabul city, inauguration was carried out, however, the actual construction was not executed due to several political & social challenges, land-acquisitions, warlord influence, technical and budgetary issues.

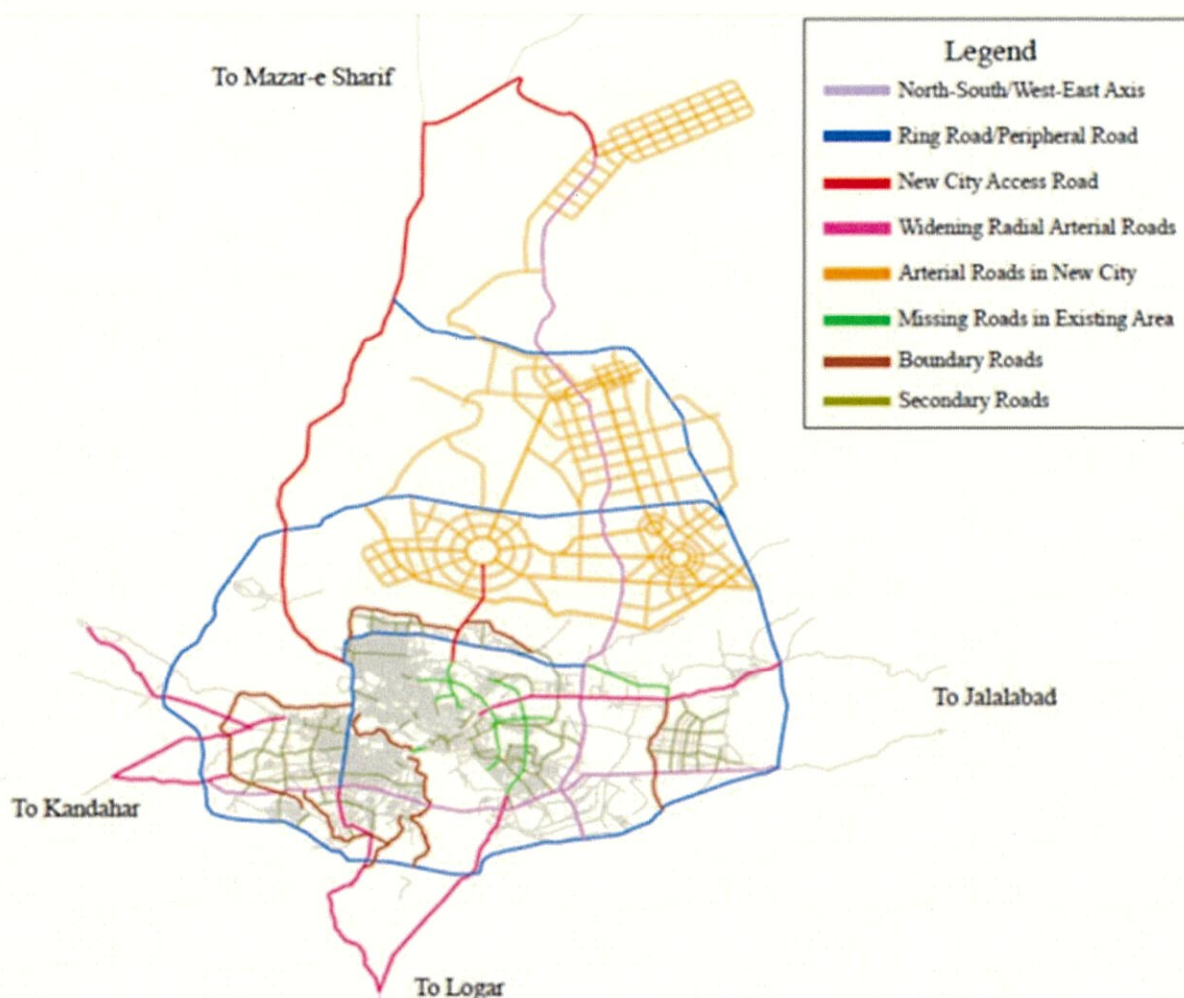
According to master plan for Kabul metropolitan area expansion of the city toward northern Kabul city was considered and a comprehensive transportation and road network to respond to the exponential growth of the population by 2025 was also prepared. Transportation network including the old city is shown in Figure 1-2-6.

Furthermore, under the Promotion of Kabul Metropolitan Area Development Project, Kabul city master plan was also revised and approved by the Afghan cabinet in 2012, which become the official document of Kabul city improvement till 2018.

In 2015, the DCDA was promoted to Capital Region Independent Development Authority (CRIDA) as an Independent Budgetary Unit and Governmental profitable entity within the organizational structure of the Islamic Republic of Afghanistan.

With the establishment of new government under President Ghani in 2014, the vision for improvement new city was changed toward renewal and development of existing (old) city. CRIDA terms of reference was changed and become a parallel organization to Kabul Municipality focusing on improvement of infrastructure not only Kabul but also central zones including Wardak, Logar, Kapisa and Parwan provinces.

In December 2016, major changes occurred in KM's leadership; visions and policies toward public transportation, and traffic management. As first attempts, KM new leadership considered implementation of sustainable transport system by adopting National Association of City Transportation Officials (NACTO) standards in Kabul city. In addition KM's responsibility expanded. Along with the improvement of transportation infrastructures, it was assigned to be in charge of transport policies, arranging, planning, usage, and operation of urban transport facilities which was originally MOT task.



Source: Kabul Metropolitan Area Development Master Plan, 2009

Figure 1-2-6 Road Network Proposed for Kabul Metropolitan Area Development Including Kabul Existing City

KM was committed to lead and manage urban transportation operation, management, monitoring and infrastructure construction. To achieve this goal, major changes occurred in KM's organizational structure with upgrading the organization from three deputy mayors: Admin Deputy, Technical Deputy and City Service Deputy Mayor to six Deputy Mayors. The major changes occurred in Technical Deputy Mayor's responsibility which were divided into three independent deputy mayors and establishment of new directorates (Annex-II). Deputy Mayor Position for Transportation with two new independent directorates; Public Transportation, and Traffic Coordination were established to coordinate and manage public transportation in the city. Major aims of the Transportation Deputy and the two directorates were as follows:

Transportation Deputy Mayor: To lead and manage all transportation relevant directorates and in KM and to represent KM at the government level to bring sector-wide coordination with the relevant ministries and organization at the top-management level. Details about two newly established directorate are explained below:

1. **Traffic Affairs Coordination Directorate:** A total of 146 employees with the core engineering staff of (32 members) were hired. The three major tasks of this directorate were:
 - a) Preparation and implementation of strategic goals toward capacity improvement, better management of traffic affairs in the city and to assure traffic safety.
 - b) Planning and improving the traffic performance of Kabul city with short-term, medium-term and long-term goals and plans in mind.

- c) Conduct study, research and evaluation of traffic issues and to find and implement counter measures.
 - d) Facilitate and implement KM plans to enhance and manage traffic in the city.
2. **Public Transportation Directorate:** This directorate had more than 100 employees with the core engineering staff of 15 members. The major tasks were:
- a) Planning reform programs and improving the performance of public transport in Kabul city, taking into account short-term, medium-term and long-term urban goals and plans.
 - b) To research, investigate and evaluate current status of public transportation and to find and implement mitigations.
 - c) To do the feasibility study, plan, design and develop effective public transportation system to be applicable and meet the need of the residents.

As public transportation was given the top priority, BRT master plan was prepared, implementation policy and some practical actions on BRT infrastructure development were taken. In 2017, KM announced the first phase of a metro bus system in the capital, which was counted as the first major urban public transportation scheme in the country.

Establishment of Traffic Management Board

In November, 2017, President Ghani approved KM's proposal on establishment of Traffic Management Board. The main goal of Traffic Management Board was to monitor and manage traffic and urban transportation in the city, to bring sector-wide coordination among transport relevant organization and to bring traffic police under the management of KM.

Kabul Mayor chaired the board while MOT representative, Police Traffic General Manager, Deputy Director of Kabul Police, Transportation Deputy and City Services Deputy Mayors were members. This board had regular meeting to monitor and evaluate Kabul Traffic performance.

Under this new policy, traffic management through signal installation at the intersections, road marking, traffic signs, management of parking along road and other sites, driving license issuance in accordance with the relevant rules, technical examination of vehicles, issuance of documents, number plates and other necessary documents, monitoring of traffic law and registration of infractions in accordance with standard procedures became the task of KM. Although the organization structure of traffic police remained under MOI, its operation became under the full authority of KM.

Some robust actions including improvement of roundabouts, intersections signalizations, management of public bus terminals, lane management and traffic directions and law enforcement were taken, and to some extent coordination was established among the relevant authorities to manage traffic and public transportation in the city.

KM announced that 111 km of metro bus will be built within 3 years till 2020 while the first phase of BRT from Sarai Shamali to Baraki Square was planned to be operational from 2018. Although progresses such as planning, preliminary design and contract with an Indian company was completed, the project failed. Lack of a realistic plan and coordination, mismanagement, fund availability, procurement and bureaucratic procedure, land acquisition, security issues and technical capability of KM personnel were among the major problems behind this failure. Moreover, many other challenges such as traffic jam during rush hours, improvement of the bottle necks, and to provide sufficient number buses in the city to serve the residents were still remained.

Kabul Urban Development Framework (KUDF)

On February 2019, President Ghani appointed Mr. Ahmad Sarfaraz Zaki as the new Kabul Mayor, who brought major change in KM vision and overall policy. Kabul Master Plan (revised by JICA) was replaced with a new framework called KUDF with an official approval by President Ghani. The KUDF which was prepared in 2018 by SASAKI, a Boston-based American company in coordination with the MUDH, was approved as an official master plan in 2019. KUDF was a framework rather to be a master plan, but it was approved to be considered as new master plan for Kabul City. There are several basic differences between KUDF and Kabul master plan (2012). Followings are some major differences:

Kabul Master Plan (2012) strategy for transport development was focused on Road network development to mitigate traffic congestion such as:

- Elimination of bottlenecks
- Separation of through traffic from city center
- Resolution of missing links
- Establishment of road hierarchy
- Application of appropriate road design standards
- Improvement of community road

As for improvement of efficiency for public transport, the master plan emphasized on expansion of bus services to newly urbanizing areas, improvement of bus services, improvement of operating efficiency, mitigating adverse impact of road congestion. Moreover, conducting traffic survey, future traffic demand, traffic management plan and project prioritization were included.

As a matter of fact that Kabul city has been considered as the fast-growing population city, traffic forecast and future demand carried out anticipated that Kabul city may encounter a severe traffic problem with “Do Nothing Case” by 2025, and the only option to resolve the issue, was to expand the city toward the northern Kabul as anticipated in Kabul Metropolitan Master Plan (Figure 3-5). As for KUDF, it has emphasized on redevelopment of existing city with the following major purposes:

- To show growth and expansion strategy centered around the existing city
- Focusing in strategic urban design
- Expansion from the existing urban fabric to a new developed satellite city
- BRT and bike modes are focused as the main sector goals.
- BRT network is to be developed in Kabul city as major component of Master Plan (Figure 1-2-7).
- Southern and eastern sections of the Ring Road as essential component of road network is to be developed.

KM overall policy, with some minor changes, was progressed in accordance with KUDF till Aug. 2021

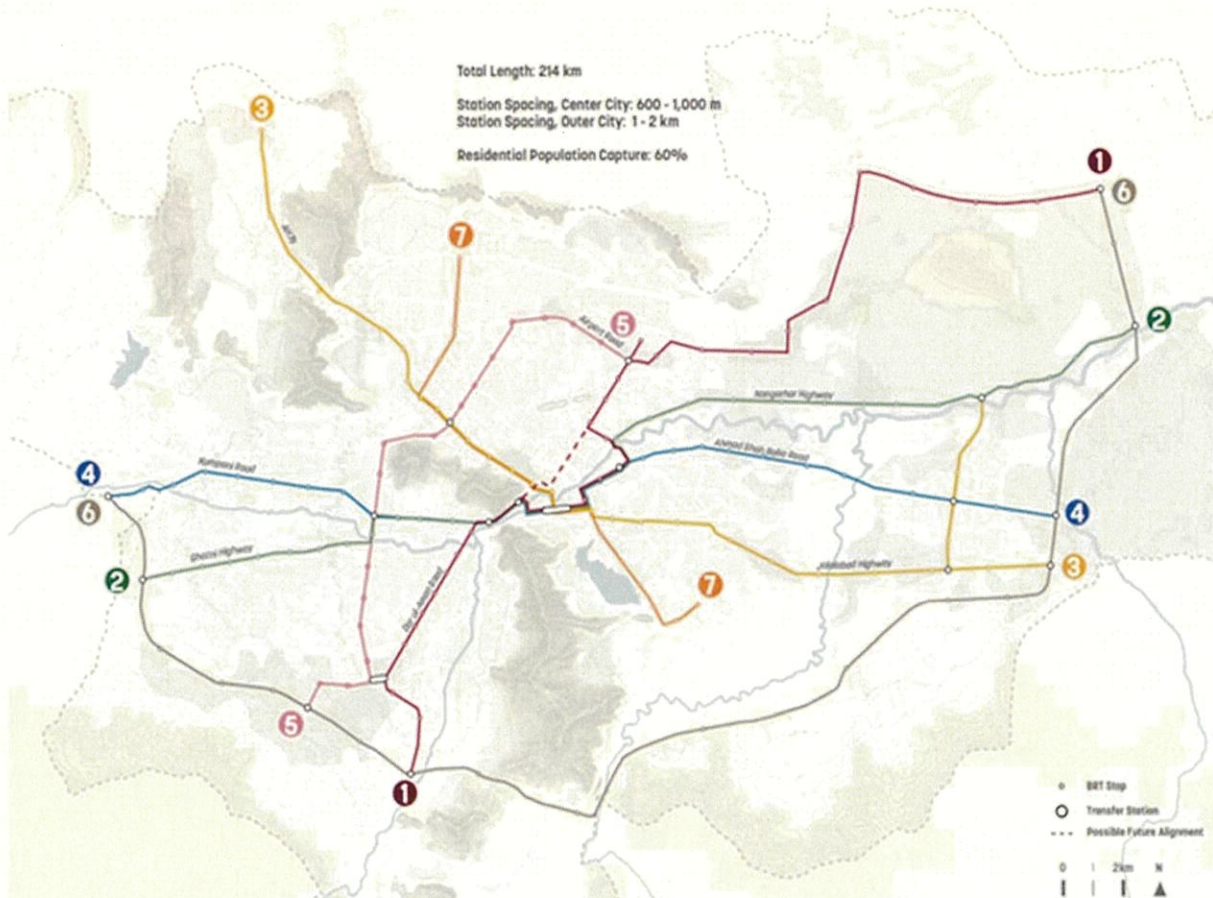
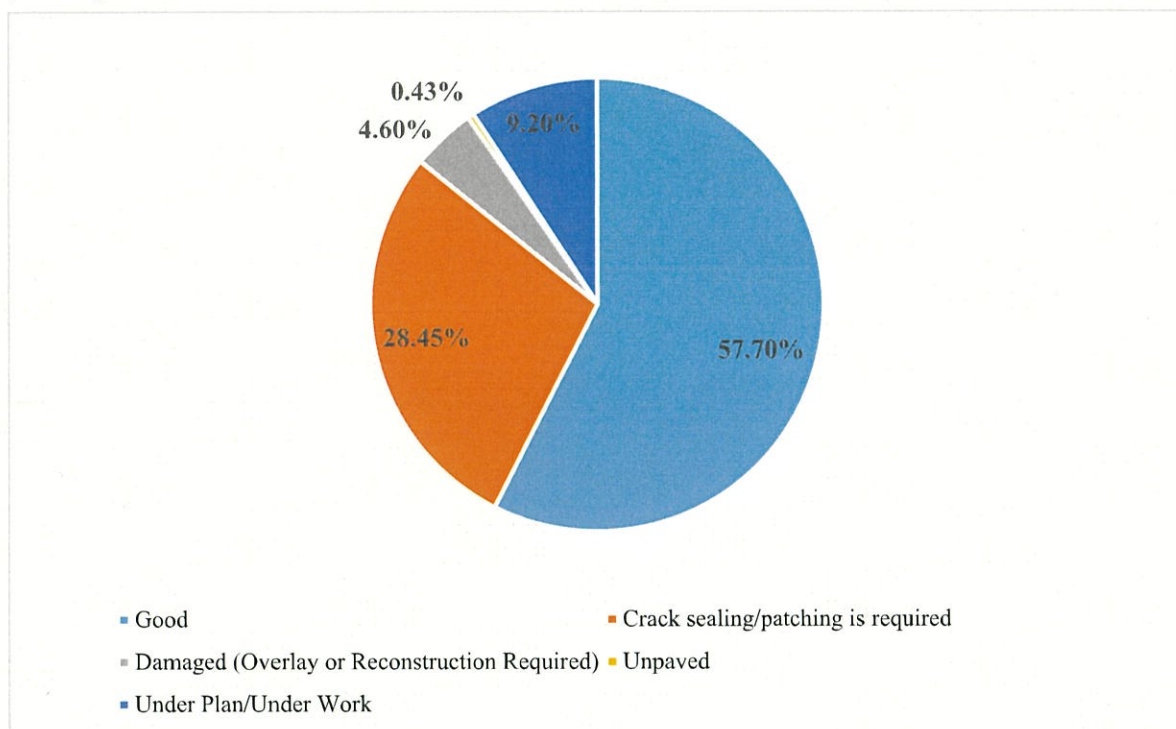


Figure 1-2-7 BRT Network Proposed in KUDF, 2018.

1-2-4 Urban Road Major Achievements

Regarding the transport infrastructures, roads are the principal mode of transportation infrastructure in Kabul City. According to the master plan (1978), more than 1100 km of the roads (main and local roads) in Kabul City were considered to be asphalted, but only 30 percent of the road network master plan were fulfilled by 2001, while majority of these asphalted roads were partially or majorly destroyed in the last three decades and needed reconstruction. Since then major reconstruction were resumed in Kabul city with the donor`s technical support and financial contribution. As of 2021, total main roads (arterial and major collector roads) in Kabul city was 352 km while total community roads registered, is over 1,324 km

A survey of main road condition was conducted by road maintenance technical members of KM under the JICA Capacity Development Program and the result is shown in Figure 1-2-8. Out of 352 km roads, 57.7 percent are in a good condition, 28.45 percent requires miner repairing (crack sealing or patching works), 9.2 % were under reconstruction while 4.6% were seriously damaged. The data indicated that paving rate for main road almost reached to 100% (99.58%). As for the community roads, according to data received from KM, more than 50% of community roads are either asphalted or paved with stone pitching.



Source: Kabul Municipality

Figure 1-2-8 Kabul City Main Road Condition, 2021.

Several major donors have contributed to transportation and road improvement for Kabul city, here some of major activities are explained.

1-2-4-1 JICA

JICA has had major contribution in urban development in general and in transportation and urban road improvement in particular mainly focusing on Kabul city. Details on JICA`s supports in urban transportation are summarized in section 1.3; Development of Metropolitan Area Master Plan, Revision of Kabul City Master Plan, Reconstruction of more than 45 km roads under JICA consultant`s supervision or via UN agencies, provision of public buses and bus-stations development, several capacity development programs on road construction and maintenance management, financial and technical contribution with KSP program to improve community roads, are among JICA`s major contribution for Kabul city

1-2-4-2 World Bank

a. Kabul Urban Road Improvement Project (KURIP) Achievements

The Kabul Urban Road Improvement Project (KURIP) financed by ARTF and managed by the World Bank Group was initiated in September 2008. The project aimed to improve traffic flows on priority corridors or segments of the main urban roads in Kabul city. The project included the rehabilitation of 12 km of existing roads, construction and rehabilitation of roadside drains and sidewalk, construction of roundabouts at key intersections, and installation of street lights. In addition, the project successfully designed a 75 km of existing roads to be targeted for future reconstruction.

b. Kabul Urban Transport Efficiency Improvement (KUTEI) Project Achievement

The Kabul Urban Transport Efficiency Improvement (KUTEI) project was initiated as a successor of the Kabul Urban Road Improvement Project (KURIP) project in April 2014. The \$90.50 Million on-budget project was financed by the ARTF and managed by the World Bank group. Kabul Municipality was the implementation partner for the project. The project was comprised mainly of the following three components:

1. Road Infrastructure: The road infrastructure component included the construction of 32 km of major roads in Kabul city and the construction of the 6.9 km Wazir Abad Canal. The project implemented 38 km of additional road markings.
2. Capacity Development: 40 km of urban roads were designed under this component.
3. Project Management Unit (PMU) was mobilized under Kabul Municipality for project implementation. Capacity development and on-the-job training were provided to KM service employees under this component.

c. Kabul Municipality Development Program (KMDP) Achievements

The Kabul Municipality Development Program (KMDP) financed by the ARTF and managed by the World Bank Group was initiated in 2014. The development objectives of the Project were to increase access to basic municipal services in selected residential areas of Kabul city, redesign Kabul municipality (KM's) financial management systems to support better service delivery, and enable early emergency response in the event of an eligible emergency. The total cost of the project was US\$ 110 million.

1-2-4-3 UN-Habitat

UN-Habitat has been a strategic partner of the Afghan Government in promoting sustainable urban development. Since 1992, UN-Habitat has worked closely with the government, municipal and local authorities, contributing to the physical and social reconstruction of the country, particularly Kabul City. UN Habitat implemented several programs and projects in Kabul City to support rehabilitation, reconstruction and to develop KM officials' capacity to provide better services and supports for the residents. With regards to transportation and road constructions following, two major programs were implemented:

a. Kabul Solidarity Program (KSP)

This program provided major support to Kabul Municipality in strengthening capacity to plan and manage community-implemented urban upgrading works in the capital. Under KSP, 23.9 kilometers of streets were concreted in district 11, 12 and 16 of Kabul city. In addition, construction of 46.3-kilometer culverts, 21,219 square meter footpaths were also constructed. Several donor agencies provided funds to support this project among which JICA alone provided US\$ 5 million which was mainly used for infrastructure development including local streets.

b. City for All:

In order to capitalize on the great potential of well-planned, well-governed and well-financed urbanization, the Government of Afghanistan implemented an innovative program with the support of UN-Habitat addressing urban governance in Kabul and 11 other cities under the name of City for All. This program was designed to survey and register urban properties; develop strategic action plan to

guide investments and economic development; and empowering revenue and citizen engagement. Certain achievements were also gained to support urban transportation by registering and naming local streets and providing addresses for 600,000 houses. Moreover, strategic action plans were completed for Kabul City, which guided the implementation of infrastructure projects at municipal levels.

1-3 Afghanistan Reconstruction Assistance by Japan Government Related to Urban Transportation

The Japan government majority assistances were oriented on self-reliance and reconstruction of the Afghanistan. Japan provided assistance in areas such as agriculture and rural development, infrastructure development (including, transportation and road network, energy, water), education, health not only in Kabul but also major regional provinces such as Nangarhar, Kandahar, Balkh (Mazar-e-Sharif), Herat, Bamyan and Chaghcharan.

In the road and transport sector alone, Government of Japan had spent more than USD 220 million as grant aid to improve more than 700 km of road including ring roads, major highways/Trunk and Local Roads at national/provincial and urban areas.

Here, Japan Official Development Assistance (ODA) supports are divided into two major parts; Japan ODA support on urban provincial level, and Japan ODA support in Kabul.

1-3-1 Japan ODA Support on Urban Provincial Roads

The information has been collected from all available resources including official reports, information available on the internet; Ministry of Foreign Affairs of Japan website, JICA website, Consulting companies, accredited news agencies, counterpart organizations websites, personal interviews etc.

Due to limited sources and inaccessibility to the full ODA support project at national/provincial level, we were unable to find the exact number of projects with more details such as project background, activities, and current conditions. Searching and looking to the available resources, we found a total of 10 projects, which have been implemented at national/provincial level mainly focusing on regional or national highways. The major national highway projects' summary are explained in Section 1-1. Here, provincial urban or local roads are summarized:

1. Improvement and construction of roads in Kandahar, grant aid, 2005-2007.
2. Project for rehabilitation of roads in Mazar-e-Sharif, grant aid project, 2005-2007.
3. Development of local roads and rehabilitation of airports in Bamyan Province, grant aid, 2007-2009.
4. Improvement of Chaghcharan city roads in Ghor province, grand aid, 2008-2010.
5. The Project for Rehabilitation of Community Infrastructure in Nangarhar, grant aid project. 2016.

1-3-2 Japan ODA Support in Kabul

After Taliban's previous regime ended in 2002, the government of Japan sent a preparatory mission for supporting Afghanistan Interim Administration to meet government top officials including sector ministries. After an agreement between the two parties, JICA dispatched an Advisory Team in April 2002 to have a series of discussions regarding the potential support in the field of transportation, target areas, scope of works, etc. The JICA Study Team identified the grant aid and technical cooperation projects for the South-Western area infrastructure improvement, and public Transportation in Kabul city to help the life of Kabul citizens in the short-term by 2005 and in the long-term by 2020. This study made the base for all other upcoming projects for Kabul city, which was followed by several other projects till 2021.

The main objective of this section was to collect necessary information about Japan/JICA support in the field of transportation and road construction in the last 20 years, their outputs, outcomes, impact, current status and lesson learned if any.

A chronological-based diagram of 18 projects for Transportation and Road Construction which were managed by JICA since 2001 is shown in Figure 1-3-1

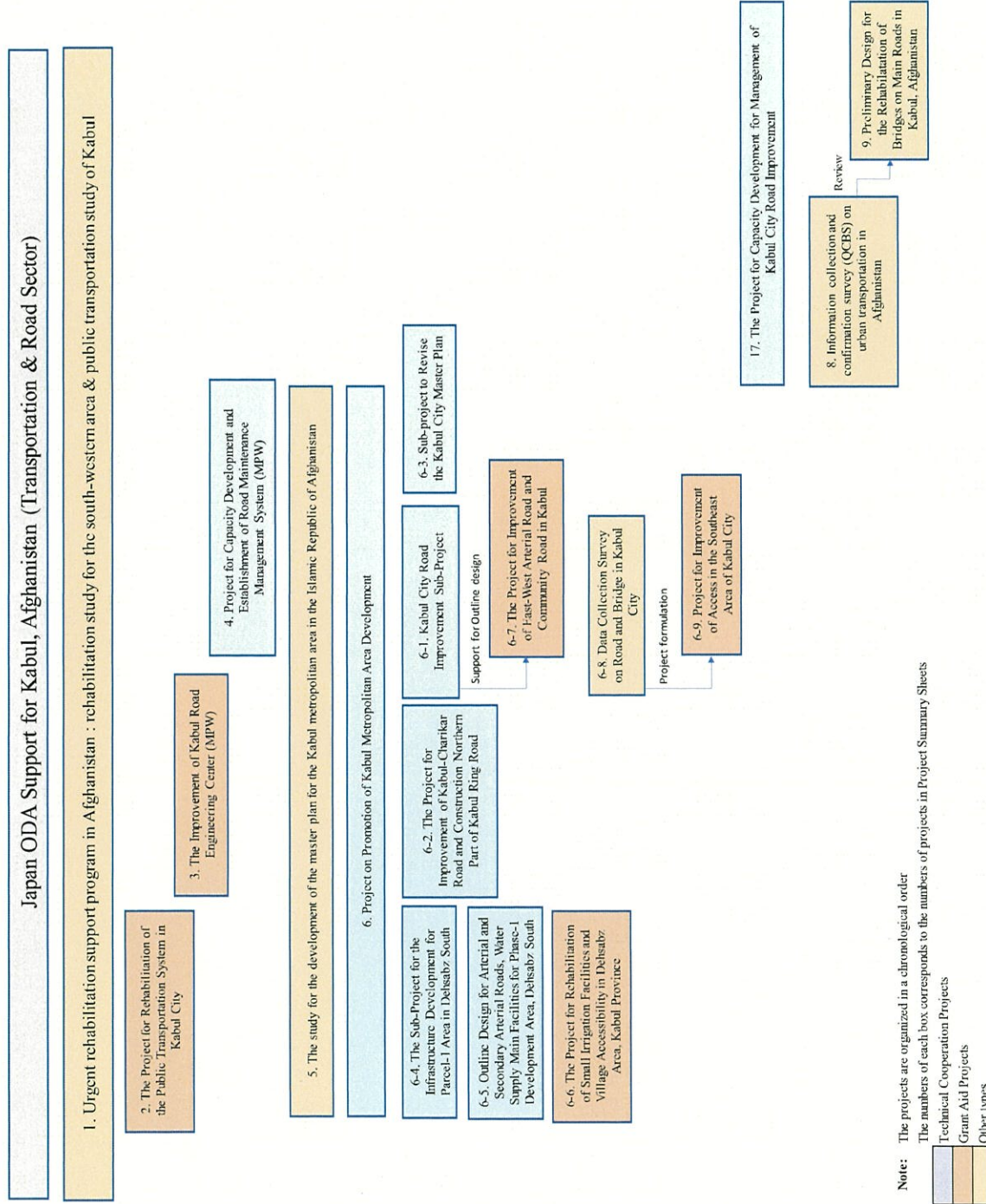


Figure 1-3-1 Chronological Order of JICA's Projects Implemented in Kabul Since 2001

1-3-2-1 The Projects Summary

A format has been prepared with six sections; Project Title, implementing agency/consultant, project period, counterpart organization, project summary which has a short background, goals, activities and results, and the final section is current status. Regarding current status of the projects, data have been collected via unofficial contacts with counterpart organization technical members, peoples who are living in the vicinity of the projects, from media and personal connection. The projects summary sheets correspond to the number of the project shown in Figure 1-3-1.

1. Urgent rehabilitation support program in Afghanistan: Rehabilitation Study for the South-Western Area & Public Transportation Study of Kabul		
No.	Item	Descriptions
1	Consultant	Pacific Consultants International (PCI), Yachiyo Engineering Co., Ltd. (YEC)
2	Project Type	Information Collection Survey
3	Project Period	July 2002 to February 2003
4	Counterpart Organization	Afghan Assistance Coordination Authority, Ministry of Public Works, Kabul Municipality, Ministry of Power & Water, Ministry of Transportation
5	Project Summary	<p>The government of Japan sent a preparatory mission for supporting Afghanistan Interim Administration in March 2002 for meetings with ministries and other concerned organizations. Afterward, JICA sent an Advisory Team in April 2002 to prepare Minutes of Meeting with Implementation Agencies, exchange views and have a series of discussions regarding the objectives, target areas, scope of works, etc. In Afghanistan, various infrastructure and transportation facilities were destroyed by the long-term conflict. Hence, rehabilitation was urgent especially in the South-Western area of Kabul where the urban functionality and private houses were completely damaged. The public transportation was also damaged; public buses including trolley busses were destroyed, street pavements including bus-stations and other facilities were also majorly damaged.</p> <p>The JICA Study Team identified the grant aid projects as infrastructure for the South-Western area, and public Transportation in Kabul city designed to help the life of Kabul citizens in the short-term by 2005 and in the long-term by 2020. As the output of this study, two major fields; Reconstruction of Urban Functions and Public Transportation were targeted. A total of 19 projects were identified is shown in Annex-V. Six out of 19 were ranked as group-A which included:</p> <ol style="list-style-type: none"> 1. Development of new water resources for Kabul Water Supply 2. Construction Project of Water Feeding Stations for Public Tap Stations 3. Rehabilitation of Public Transportation Capacity in Kabul City 4. Rehabilitation of Public Bus Workshop 5. Rehabilitation of Macrorayon Sewage System 6. Reconstruction of Public Toilets
6	Current Conditions	As a result of this study, several projects related to above mentioned prioritized areas (group-A), have been implemented. As stipulated in Figure 1-3-1, 18 projects were implemented only in the field of road and transportation which are related to item 3 and 4 of prioritized area in group A. These projects included preparation of Kabul Metropolitan Area Master plan and formation of Project on Promotion of Kabul Metropolitan Area Development which in turns included several sub-projects. The summary of main transportation related projects has been prepared separately.

2. The Project for Rehabilitation of the Public Transportation System in Kabul City		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Grant aid
2	Project Period	2004
3	Counterpart Organization	Ministry of Transport (MOT)/ Milli-Bus Directorate
4	Project Summary	<p>Rapid population growth in Kabul city already exceeded absorption capacity of the city, which was originally built with an estimated population of 800,000. This rapid population growth is accompanied by a significant increase in vehicular traffic, resulting in chronic traffic congestion in Kabul. In Kabul, the capital of Afghanistan, buses are used to be the most important means of transportation for many of the poor people. However, there have been a significant shortage of buses, and the buses are severely overcrowded, with a 170% occupancy rate during the morning and evening peak hours. In addition, Kabul International Airport had only one bus to pick up and drop off passengers, and passengers were forced to walk between the aircraft and the terminal.</p> <p>This project supported the provision of 115 buses and 252 bus stop shelters along Kabul's city routes and at the airport. This enabled the city routes to operate on time and improved peak hour ridership to approximately 120%. Bus stops were constructed along major routes, the provided bus are commuting normally in Kabul City under the operation of Milli-Bus Directorate and supervision of MoT. The shortage of bus at the airport are also solved, the numbers are adequate and are being normally used to serve passenger in the airport. Before August 2021, a total of 70 buses operated at the airport, although some of them got old and required proper maintenance.</p>
5	Current Status	<p>With the donation of 115 buses, public transportation remarkably improved which provided satisfaction of Kabul citizen's particularly poor people. However, due to lack of proper maintenance system in Milli-Bus Directorate, the buses were not properly maintained which as a result majority of them were either partially damaged or majorly broken. Within 5-6 years of donation the majority (more than 80%) were not operating at the city.</p> <p>As of now, only few number buses (around 10-20) are still operating in the city, though the rest of them are broken and not functioning anymore. However, the buses in the airport are normally functioning and are properly maintained. The bus stops are partially used, however due to unavailability of sufficient number of buses and maintenance systems, these bus stops are not fully functional.</p>

3. The Improvement of Kabul Road Engineering Center		
No.	Item	Descriptions
1	Consultant	Construction Project Consultants, Inc.
2	Project Type	Grant Aid
3	Project Period	2007-2008
4	Counterpart Organization	Ministry of Publics Works (MOPW)
5	Project Summary	<p>Afghanistan was engaged in various reconstruction activities with assistance from the international community to rebuild its national infrastructure, which was devastated by more than 20 years of civil war.</p> <p>Japan placed particular emphasis on supporting the reconstruction and development of infrastructure, and progressively provided assistance to the road sector in Afghanistan to help stabilize the economy through the restoration of transportation and logistics.</p> <p>As part of this support for the road sector, on February 13, 2007, at the request of the Afghan government, the Japanese government decided to implement the "Kabul Road Technical Center Development Plan". In response to this decision, JICS signed a procurement agency agreement with the Ministry of Public Works of Afghanistan on February 22, 2007, and selected consultants, construction companies, and equipment suppliers, as well as providing procurement supervision and financial management services for the entire project.</p> <p>This project aimed to renovate and reconstruct the facilities of the Kabul Construction Machinery Center (KCMC), which is in charge of road maintenance and management in Afghanistan, procure the missing maintenance equipment, and provide the staff with initial operational training for the equipment. The renovation and reconstruction of the facility began on January 15, 2008, and was completed on December 3, 2008.</p>
6	Current Status	The evaluation and current status of this project was carried out jointly with the "Project for Capacity Development and Establishment of Road Maintenance Management System" below in summary report No. 4.

4. Project for Capacity Development and Establishment of Road Maintenance Management System		
No.	Item	Descriptions
1	Consultant	Katahira & Engineers International
2	Project Type	Technical Cooperation
3	Project Period	2008/03/03 to 2012/01/06
4	Counterpart Organization	Ministry of Public Works (MOPW)
5	Project Summary	<p>The rehabilitation of roads and bridges, which are the key to Afghanistan's society and economy, is extremely important for the country's future reconstruction and development. Japan previously contributed to the maintenance of the Kabul-Kandahar-Herat road, and in order to strengthen the capacity of the Afghan Ministry of Public Works, this project, together with grant assistance, supported the establishment of a road management system, functional strengthening of related departments, and human resource development, such as improving the capacity of staff. This project aimed to contribute to strengthening the function of the road maintenance and management system in Kabul Province. A road maintenance management manual was developed to enable staff of the Directorate General of Infrastructure Maintenance to master the workflow of road maintenance management, from planning to technical inspections, and to develop efficient road maintenance plans on their own.</p> <p>The main outcomes of the project were as follows:</p> <ul style="list-style-type: none"> ➤ The operational and organizational structure for the implementation of the management system were to be established. ➤ Capacity development of personnel involved in research, planning, budgeting, and procurement at the Road Maintenance Directorate, Kabul Regional Office, and Kabul Construction Machinery Center (KCMC) will be improved. ➤ Capacity for construction, construction supervision, and inspection will be improved in the Road Maintenance Bureau and Kabul Regional Office. ➤ As a pilot project for the purpose of on-the-job training, rehabilitation of the Dispitury Road was included.
6	Current Conditions	<p>The effects of the project have continued after the project completion, and the Overall Goal, "Road maintenance and management system works in Kabul region." has been partially achieved. As for the sustainability, some problems have been observed in terms of the institutional/organizational development, technical and financial aspects. As for the efficiency, both of the project cost and the project period exceeded the plan. Considering all of the above points, this project was evaluated to be partially satisfactory.</p>

5. The study for the development of the master plan for the Kabul metropolitan area in the Islamic Republic of Afghanistan		
No.	Item	Descriptions
1	Consultant	RECS International Inc., Yachiyo Engineering. Co., Ltd., CTI Engineering International Co., Ltd., Sanyu Consultants Inc.
2	Project Type	Master Plan Study
2	Project Period	2008-2009
3	Counterpart Organization	Dehsabz City Development Authority (DCDA), Kabul Municipality (KM), Ministry of Urban Development and Housing (MUDH)
4	Project Summary	<p>This project aimed to prepare an urban development master plan for Kabul Metropolitan area covering the “existing Kabul City” and “New City Development area (Dehsabz)”. The specific objectives of the project were; Preparation of the urban development master plan for Kabul Metropolitan Area for 2025 with short (2015), medium (2020) and long terms (2025) implementation plans, and the recommendation of the administrative system for the master plan.</p> <p>Based on the data and results of several required surveys and studies, a comprehensive Master plan was provided consisting of major components such as Basic Conditions, Planning Concepts, Frameworks, Development Scenarios, Economic Plan (Agricultural and Industrial Development Plan), Land Use, Infrastructure Development (Transportation Plan, Water Resources, Water Supply and Sewerage Development Plan), Power & Energy Supply Plan and the Implementation Plan. While this plan provided macro-level development guidelines, zoning ordinances, road and infrastructure networks, it also envisaged public participation in the planning process at the neighborhood level.</p> <p>The new master plan for Kabul metropolitan area was endorsed by the Afghan Cabinet in March 2009. The DCDA as the regulator and management authority, had major achievement for the planning of phase-1 which included development of Parcels 1&2 with planning and construction of 80,000 housing units along with infrastructure development plan in Dehsabz south area. It also expected to enhance private sector investment and donor support towards the development of the new city.</p>
5	Current Conditions	<p>Several obstacles including management problem at DCDA, land acquisition issues, existing of landlords, their social and political influence have caused the Dehsabz project not to officially implement, though the inauguration was held by DCDA. In addition, with the establishment of new government under president Ghani`s leadership, government policy drastically changed from expansion of the city in the north to development of existing city under Kabul Urban Design Framework (KUDF) prepared in 2018 by SASAKI, a Boston-based American company in coordination with the MUDH.</p>

6. Project on Promotion of Kabul Metropolitan Area Development		
No.	Item	Descriptions
1	Consultant	Assigned for each sub-project
2	Project Type	Technical Cooperation
3	Project Period	2010/5/11-2015/5/10
4	Counterpart Organization	Dehsabz City Development Authority (DCDA), Kabul Municipality (KM), Ministry of Urban Development and Housing (MUDH)
5	Project Summary	<p>The population of Kabul, which was approximately 2 million in 1999, already surpassed 4 million by 2010, exceeding its original population absorption capacity. It is expected to reach 6.5 million by 2025. With this rapid population growth, urban problems such as water, air and soil pollution, illegal residents, traffic congestion, social infrastructure facilities including roads, water supply systems etc. have become more serious. This project aimed to strengthen capacity of the DCDA and the Kabul Municipality to implement urban development in accordance with the Kabul Metropolitan Area Development Master Plan. This Project is an umbrella program and had several sub-projects like Revision of Kabul Masterplan, Kabul City Road Improvement etc. Main achievements of this projects were; Capacity development of counterpart organizations for implementation of urban development planning, infrastructure development and projects' management of urban development. The project further facilitated to create appropriate coordination among relevant agencies for the development of Kabul Metropolitan Area. As the major outputs, DCDA was able to develop urban implementation plan for phase-1 which included development of Parcels 1&2 with construction planning of 80,000 housing units along with infrastructure development plan in Dehsabz south area. Kabul Municipality also acquired the ability to strengthen implementation system of urban development in Kabul City, and to standardize road construction management and supervision skills across the organizations. Revised Master Plan for Kabul City was developed and enacted by the cabinet of Afghan Government in 2012.</p>
6	Current Conditions	<p>In order to create safe urban environment and tackle the problems caused by ever increasing population growth in the capital of Afghanistan, DCDA has been promoted to Capital Region Independent Development Authority (CRIDA) having the authority as Independent Budgetary Unit and Governmental profitable entity. CRIDA not only develop Kabul New City project but also pave the ways for the development of Capital Region with broader vision.</p> <p>As an effort by the project, Land redevelopment, Land readjustment and road maintenance Departments were established within KM and the gained knowledge are being implemented as routine activities.</p> <p>Under the de facto authority, CRIDA has resumed its activities and the Press Director of the organization has announced that TIA is committed to resume New Kabul City Project which was stopped in the Ghani government.</p>

6-1. Kabul City Road Improvement Sub-Project		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Technical Cooperation
3	Project Period	2010/07 to 2015/04
4	Counterpart Organization	Kabul Municipality (KM)
5	Project Summary	Under the project of the promotion of Kabul Metropolitan Area, this Sub-Project aimed to improve the implementation capacity of the Kabul Municipality (KM) to carry out development projects for the Metropolitan area. Two main activities; Road Construction and Capacity Development (CD) were conducted. In the Pilot Project targeting the 27.6 km of main and community roads improvement within Kabul city, a sequence of on-the-job training skills such as planning, design, and procurement, supervision, and completion inspection were conducted to KM officials. Through the practice of CD the trainees acquired basic knowledge on road design, procurement, construction supervision, project planning and road maintenance, based on which they began to carry out proper road construction and the maintenance works. A total of 16 practical manuals and several road construction hand outs were prepared.
6	Current Conditions	This project has brought new vision of road project implementation in Kabul Municipality. With the utilization of design standards and manuals developed through this project, generally road construction skills got much better which as a result good quality roads have been constructed by KM itself or by local contractors under the supervisions of KM officials. Currently, the condition of the roads constructed under this project, are still remain in a good condition. Road maintenance become the top priority of KM which as result the section has been developed to a Deputy Directorate level with several sections and many technical staff in KM.

6-2. The Project for Improvement of Kabul-Charikar Road and Construction of Northern Part of Kabul Ring Road		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering Co., Ltd. (YEC)
2	Project Type	Technical Cooperation
3	Project Period	2012-2013
4	Counterpart Organization	Dehsabz City Development Authority (DCDA) and Ministry of Public Works (MOPW)
5	Project Summary	<p>As one of the sub-projects of the technical cooperation project on “Promotion of Kabul Metropolitan Area Development”, this project was aiming at improving the capacity of DCDA in formulating plans for social infrastructure facilities development projects with respect to planning and designing the City/Periphery Road in the Kabul Metropolitan Area. The components were:</p> <ol style="list-style-type: none"> 1. Kabul Charikar road Design: Charikar road is a part of the national ring road in eastern Afghanistan and functions as a major trunk road connecting the north and central parts of the country and Kabul City. In this subproject, in order to cope with an increase in traffic volume on Charikar Road, the present 2-lane road is widened to 4 lanes. The project targeted design of 26.5 km asphalt concrete road starting from point where 4 lane section is completed to Jabulseraj with two cross sections; 33 meter in urban area and 26 meter in suburbs. 2. Design of Northern Part of Kabul Ring Road which consists of the followings: Urban City Road: 25 km of new road with asphalt pavement, 6-lane (Main Road) and 4- lane (service road). 3. Periphery road Design: 41 km with asphalt concrete pavement, 6-lane.
6	Current Status	<p>Upon completion of Kabul-Charikar Road design, Japan government planned to approve Grant Aid for construction of this road. The minister of public work in that time suddenly decided to contract the construction of Kabul-Charikar Road with local contractors without a proper communication and coordination with JICA. The reason behind this decision was to get a political credit and wanted to convince Afghan parliament that he will complete the construction within a year. The complicated process of EIA and land acquisition required for the Japan’s grant aid was another obstacle. He failed and the construction was further delayed for another 3 years. Finally, construction of Kabul-Charikar Road, starting from Qala-e-Murad Bek ending at Do Saraka-e-Bagram with a length of 26.5 km was carried out from 2013 to 2015, rather with a very low quality and standard.</p>

6-3. Sub-project to Revise the Kabul City Master Plan		
No.	Item	Descriptions
1	Consultant	RECS International Inc. and Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Technical Cooperation
3	Project Period	2011-2012
4	Counterpart Organization	Kabul Municipality (KM)
5	Project Summary	<p>The objective of this sub-project was to establish the city master plan of the Kabul Municipality Area by carrying out supplemental analysis and planning works by fully utilizing the results of two previous studies; “Preparation of Development Plan for Kabul”, supported by the World Bank from 2007 to 2008 and “Kabul Metropolitan Area Urban Development Master Plan” supported by JICA conducted from 2008 to 2009. This master plan aims to replace the Third Master Plan which was the last master plan of Kabul City approved in 1978.</p> <p>Based on actual data and results of several required surveys and studies, a comprehensive Master plan was provided covering 22 main districts of Kabul city, and the major components are: Directions for Development of Kabul City, Land Use Plan and Land Development Strategy, Transport Infrastructure Development Plan, Utilities Infrastructure Development and Cost Estimation of the Project. Transport Infrastructure development chapter provided a detailed study and analysis on existing conditions and future considerations which mainly consist of Issues and Strategy for Transport Development in Kabul City, Traffic Demand Forecast, Public Transport Plan, and Traffic Management System Development Plan. The revised master plan for Kabul City was endorsed by the Afghan Cabinet in 2012 and become the official document for the development of the Kabul city till 2018. Several developmental projects with the support of international donors and private sectors investment were successfully implemented to facilitate the dense population in the city. Development and construction of residential compounds and business centers are among the major investment by private sectors.</p>
6	Current Status	<p>With the establishment of National Unity Government, the President Ashraf Ghani’s vision was to develop the existing city under a citywide planning framework by the name of Kabul Urban Design Framework (KUDF) which was prepared in 2018 by SASAKI, a Boston-based American company in coordination with the MUDH. The urban framework functions as a visionary roadmap that establishes the president’s vision for Kabul to evolve and grow in future years. The KUDF was only a vision, but it somehow replaced the official Kabul Master plan which was approved by the cabinet in 2012, although KUDF is taking the results of 2012 MP like the traffic forecast.</p>

6-4. The Sub-Project for the Infrastructure Development for Parcel-1 Area in Dehsabz South		
No.	Item	Descriptions
1	Consultant	CTI Engineering International Co.,Ltd. Yachiyo Engineering Co., Ltd. (YEC)
2	Project Type	Technical Cooperation
3	Project Period	Apr 2011 to Sep 2013
4	Counterpart Organization	Dehsabz-Barikab City Development Authority (DCDA)
5	Project Summary	<p>The Sub-project for the Infrastructure Development for Parcel-1 Area in Dehsabz South has been carried out as one of the Sub-projects of the technical cooperation project “The Project for Promotion of Kabul Metropolitan Area Development Plan”, which is based on the master plan formulated by the Government of Japan in year 2008-2009.</p> <p>The objective of the Sub-project is to transfer technology to DCDA staffs on planning, design, procurement management of infrastructure (major arterial, arterial, and secondary arterial roads and short-term water supply facilities) and construction supervision by materializing the Sub-project for the infrastructure development for Parcel-1 in Dehsabz South. Producing a technical sound document for the expected grant aid was another aim of the project.</p> <p>The total length of the roads designed was 26.38km with different right of ways such as 70m, 43m, 33m, 21m and 18m. The roads were properly designed using Afghan and International standards.</p>
6	Current Conditions	<p>The designed roads were not constructed due to management problem at DCDA and land issues. Then the policy of new government under President Mohammad Ashraf Ghani in 2014 changed. Instead of focusing on Kabul New City (KNC) development, Mr. Ghani was looking for some urgent and noticeable solutions for the challenges of the existing city, and KNC did not fit the bill. On the other hand, segregating government lands from the private lands of villagers and the lands taken by the warlords was another major issue. Dehsabz lands are technically government lands that have been largely grabbed and illegally sold.</p>

6-5. Outline Design for Arterial and Secondary Arterial Roads, Water Supply Main Facilities for Phase-1 Development Area, Dehsabz South		
No.	Item	Descriptions
1	Consultant	Appleton Consulting Inc. (ACI)
2	Project Type	Technical Cooperation
3	Project Period	Jun 2012 to Jan 2013
4	Counterpart Organization	Dehsabz-Barikab City Development Authority (DCDA)
5	Project Summary	<p>This project was carried out following the strong request by DCDA to follow-up the Subproject for the Parcel-1 Infrastructure Development as one of the sub-projects of “The Project for Promotion of Kabul Metropolitan Area Development Plan” with the objective of producing technical sound design documents for donor supported project and plans to strengthen the capacity of DCDA technical personnel to carry out the design and construction of road network and water supply facilities planned under the Dehsabz South Initial Development Plan.</p> <p>The objective of the project was the outline design of major arterial and minor arterial road network for phase-1 development area of Kabul new city. The total length of the roads designed was 102.93km with different right of ways such as 70m, 43m, 33m, 21m and 18m. The roads were properly designed using Afghan and International standards.</p>
6	Current Conditions	<p>The designed roads were not constructed due to change in the policy of new government under President Mohammad Ashraf Ghani in 2014. Instead of focusing on Kabul New City (KNC) development, Mr. Ghani was looking for some urgent and noticeable solutions for the challenges of the existing city. On the other hand, segregating government lands from the private lands of villagers and the lands taken by the warlords was another major issue. Brick factories and stone walls were built without consideration of the future road alignment. Dehsabz lands are technically government lands that have been largely grabbed and illegally sold.</p>

6-6. The Project for Rehabilitation of Small Irrigation Facilities and Village Accessibility in Dehsabz Area, Kabul Province		
No.	Item	Descriptions
1	Implementer	The United Nations Office for Project Services (UNOPS)
2	Project Type	Grant-aid
3	Project Period	2012-2014
4	Counterpart Organization	Dehsabz-Barikab City Development Authority (DCDA)
5	Project Summary	<p>In the Desabz area, located on the outskirts of Kabul City, Afghanistan, many residents are engaged in agriculture. However, they are unable to engage in sufficient agricultural production activities due to the destruction and deterioration of agricultural irrigation facilities caused by the long-standing civil war and the deterioration of the road environment caused by increased traffic. One of DCDA's policies of KNC is the harmony of the new city with the surrounding rural area, so that the existing villages and farmers will also benefit from the urban development. The objective of the project is to ensure stable provision of agricultural water and to enhance accessibility to markets for Dehsabz through construction of irrigation facilities and improvement of a rural road.</p> <p>This grant aid project which will be implemented by UNOPS will mainly support the repair of small-scale irrigation facilities (reservoirs and irrigation canals) and pavement of rural roads in the region. This will increase the area of irrigated farmland and enable approximately 40,000 farmers to engage in stable agricultural production. In addition, transportation of livestock and agricultural products and access to social infrastructure is expected to be improved.</p>
6	Current Conditions	The infrastructures such as irrigation canals and local roads which connect villages with farmlands were proven fruitful and have helped the development of Agricultural products and transportation to local markets. This project was in fact the only one grant aid project of Japan that was implemented in KNC area.

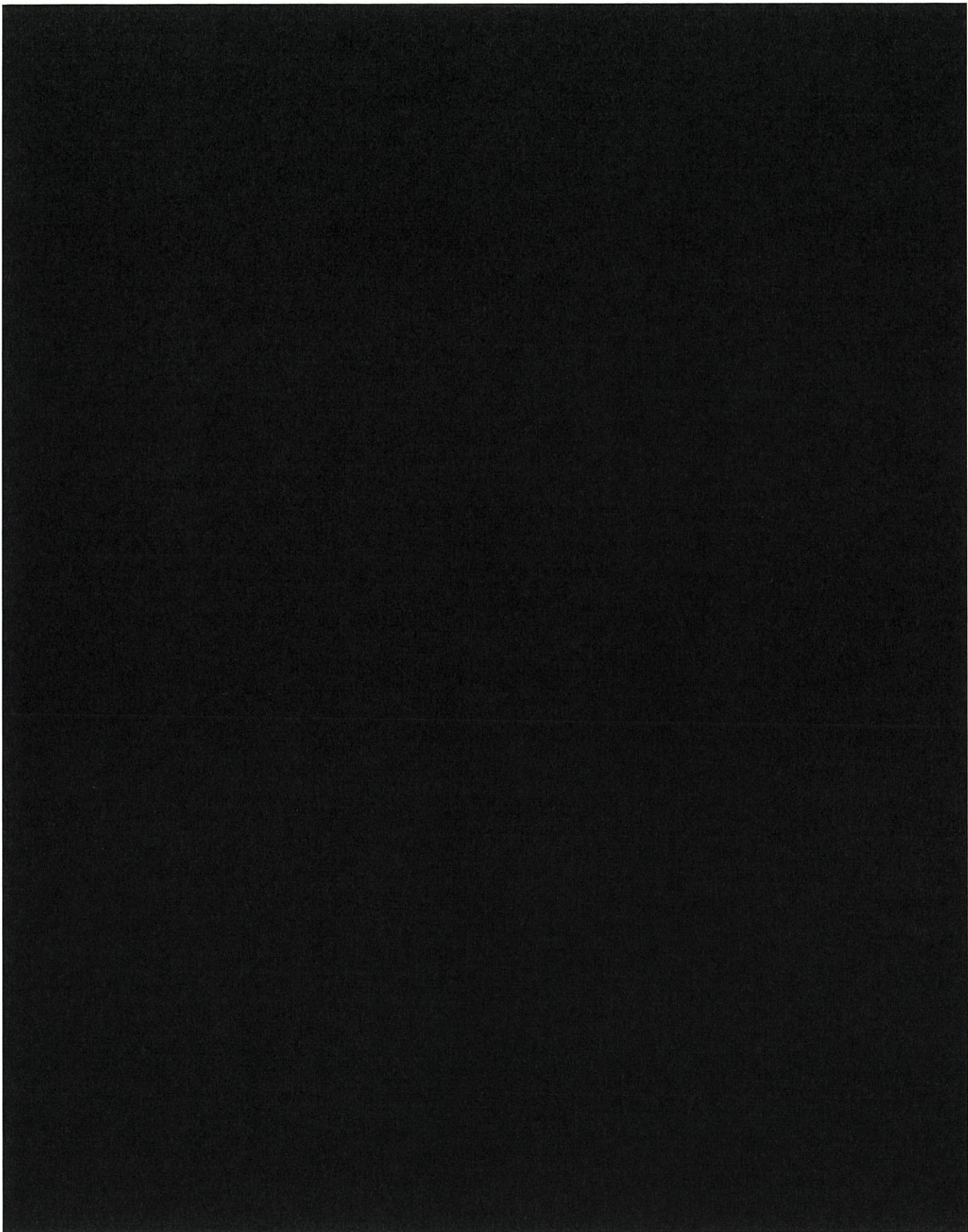
6-7. The Project for Improvement of East-West Arterial Road and Community Road in Kabul		
No.	Item	Descriptions
1	Implementer	The United Nations Office for Project Services (UNOPS)
2	Project Type	Grant-aid
3	Project Period	2012-2016
4	Counterpart Organization	Kabul Municipality (KM)
5	Project Summary	<p>The increasing population of Kabul city has already exceeded the city's capacity to absorb the growing population. Kabul North and East gates are among the most important entries to Kabul city which connects Kabul with several provinces. In particular, the main road that crosses the northern part of the city from east to west and connects the north (Charikar Road) and east (Jalalabad Road) gates have only two lanes and many unpaved sections, which hinder smooth traffic. Therefore, the through traffic uses the roads in the city center which causes further increase in the number of traffic and jams in the central area.</p> <p>To respond official request from KM, the pre-detailed design and the cost estimation for the "Improvement of East-West Arterial Road and Community Road in Northern Area of Kabul" which connects North to East of Kabul were conducted by Yachiyo Engineering Co., Ltd. on the assumption that the implementation is done by the grant aid.</p> <p>Implementation of the mentioned project was carried out under the grant aid support by UNOPS as Procurement Agency. A total of 14.9 km road with necessary accessories (lighting, pedestrian underpass etc.) was constructed. This road connected Kabul North gate to East gate and is mainly used as by pass for transportation of commodity via heavy trucks from east to north and vice versa.</p>
6	Current Conditions	The volume of heavy traffic in East-West Arterial Road has been increased and the route is very busy and has been considered very important road for Kabul City. The traffic passing from north to east and vice versa can easily access the road, which has brought about ease in the traffic flow in the central roads. The surface pavement and over all condition of this route is good.

6-8. Data Collection Survey on Road and Bridge in Kabul City		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Information Collection Survey
3	Project Period	2012 to 2013
4	Counterpart Organization	Kabul Municipality (KM)
5	Project Summary	<p>As the economic activity develops in the center of Kabul traffic congestion becomes worse and chronic. Under these circumstances, the implementation of a project to effectively deal with traffic bottlenecks in Kabul is urgently required so that the improved road conditions eliminate traffic congestion and divert the traffic in order to provide a smooth and safe travelling environment for road users. The road transport sector in particular is suffering from very poor road conditions in terms of the travelling performance and traffic safety as even main roads which are prioritized to improve are often severely damaged or do not have enough lanes.</p> <p>This project aimed to recognize and analysis of the bottlenecks in Kabul city and as an outcome four following packages were provided to be targeted for grant aid in the future.</p> <p>Package-1: Qala-e-Zaman Khan Road, Makroyan Bridge, Awali May (Maslakh) Road, Guzargah Bridge.</p> <p>Package-2: Proje Taimanai Roads, Hesai Si Road, Kapisa Wat Road, District-11 collector roads, Sarai Shamali Intersection, U-turn of Charikar Road.</p> <p>Package-3: Dispitury Intersection and Road to north and south.</p> <p>Out of four above mentioned alternatives, package-1 of the project was recommended to JICA as first priority to improve traffic follow from east to north-west of Kabul City.</p>
6	Current Conditions	As per KM official request and approval by Japan government, Package-1 of this project was funded under Japan`s grant aid support and implemented by UNOPS as an implementation partner (Please refer to project summary sheet No. 9 for detail information).

6-9. Project for Improvement of Access in the Southeast Area of Kabul City		
No.	Item	Descriptions
1	Implementer	The United Nations Office for Project Services (UNOPS)
2	Project Type	Grant-aid
3	Project Period	2017 to 2020
4	Counterpart Organization	Kabul Municipality (KM)
5	Project Summary	<p>Significant increase in vehicular traffic in the city center along Kabul River has caused chronic traffic congestion, while alternative by-pass routes can reduce traffic rush in the central area. This project is the outcome of the Data Collection Survey on Road and Bridge in Kabul City carried out by Yachiyo Engineering Co., Ltd, and the outline design and cost estimation of Package-1 of this study was carried out by a local consulting company (Appleton Consulting Inc.) under the supervision of Yachiyo Engineering Co., Ltd. on the assumption that the implementation is done by the grant aid. This project aims to contribute to the economy of Afghanistan by widening and improving the existing road and bridge connecting in the southwestern and eastern parts of Kabul, the capital of Afghanistan, to relieve traffic congestion and revitalize logistics in the city.</p> <p>To respond official request from KM, implementation of the mentioned project was carried out by UNOPS as Procurement Agency, under Japan government's grant aid support. Due to budget limitation and site availability, construction of three components of package-1 were completed as follows:</p> <p>(a) Construction and widening of 1.7 km of Maslakh (Awale May) Road (b) Construction of the new Makroyan bridge (50 meters) (c) Construction of roundabout at Abdul Haq Square (200 meters).</p>
6	Current Conditions	In the year of completion bottleneck has been removed, the average vehicle speed on the planned roads has remarkably been increased and traffic time has been reduced from approximately 10-15 minutes to approximately 3-5 minutes.

7. The Project for Capacity Development for Management of Kabul City Road Improvement		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Technical Cooperation
3	Project Period	2016/09/23 to 2020/09/30
4	Counterpart Organization	Kabul Municipality
5	Project Summary	<p>After establishment of new government in 2001, approximately 300 km of city roads were improved by significant contribution of donor agencies including JICA and World Bank in the reconstruction of road network in Kabul City. Road improvement rate was drastically increased at more than 80% by 2015. Therefore, there have been a growing demand for road maintenance to properly maintain the roads serviceability and smooth traffic in the city. On the other hand, due to lack of adequate capacity at Kabul Municipality pavement of existing roads are not properly maintained.</p> <p>In JICA's previous project (Kabul City Road Improvement Sub-Project), basic knowledge of road management and maintenance was delivered to KM technical personnel. This knowledge included basic concepts of topographic survey, basic features of topographic drawings, basic design concepts and consideration of necessary design package, the knowledge and actual establishment of road data base, and knowledge on importance of maintenance. However, there was a need to substantially promote technical skills of KM staff to an advance level on how to prepare technical document including road design package with details, preparation of technical specification, conducting proper construction supervision and road maintenance in the future.</p> <p>The aim of this project was to strengthen the technical capacity of road-related departments in KM to implement and manage road projects. The project implementation structure (Training of Trainers-Peer Training-On the Job Training) was successfully adapted and over 110 technical staff were trained. During four years of the project, the capacity of technical staff at topographic survey, basic and advanced road design, construction supervision, road and bridge maintenance were strengthened and technical documents were developed which as a result standard road construction management, road and bridge maintenance management systems have been established. In addition, the pavement coverage of existing arterial roads improved to almost 100%.</p>
6	Current Conditions	<p>The established system and developed technical documents for road construction and road maintenance are systemized and used in KM's routine works. It is mentionable that after August 2021, KM top management have been completely replaced and some professional staff have left the country, though the majority of technical staff trained under this project still remained in KM and still use the same knowledge and standard developed during the project. However, there is a possibility of changes in the policy of the de facto authority, therefore the concern of technical staff loss and adapting of current maintenance system to the new system like American standards (ASTM) or other standards are still remained. It has been reported that the new technical and construction Deputy Mayor is a civil engineer and prefers American maintenance system over Maintenance Control Index (MCI) which has been adopted under this project.</p>

8. Information collection and confirmation survey (QCBS) on urban transportation in Afghanistan		
No.	Item	Descriptions
1	Consultant	Yachiyo Engineering. Co., Ltd. (YEC)
2	Project Type	Information Collection Survey
3	Project Period	2021/02/01-2022/02/28 and 13 months extension (2022/03/01-2023/03/31)
4	Counterpart Organization	Kabul Municipality (KM) and Ministry of Transportation (MOT)
5	Project Summary	<p>In the past, JICA has supported development of new urban master plan (M/P) for Kabul Metropolitan area in 2009 and later in 2012 Kabul city M/P was revised and induced by the Afghan Cabinet. Following the preparation of these study, the Ministry of Urban Development and Land published the Kabul Urban Design Framework ("KUDF") in 2018, while KM has also studied the Bus Rapid Transit Master Plan ("BRT M/P") for the development of public transportation. There are some discrepancies in development policies between these M/Ps therefore, an integrated urban transportation M/P based on the latest transportation demand situation is needed. The discrepancies between these documents are explained earlier. Kabul Master Plan (2012) main strategy for transport development was focused on Road network development to mitigate traffic congestion such as Elimination of bottlenecks, Separation of through traffic from city center and Resolution of missing links, while KUDF aimed to show growth and expansion strategy centered around the existing city, Focusing in strategic urban design, Expansion of existing urban fabric to a new developed satellite city, BRT and bike modes are focused as the main sector goals.</p> <p>Therefore, this survey was designed to grasp the existing traffic conditions and to collect the necessary information, policies, and strategies on urban transportation in Kabul and to analyses the data and develop scenario. Followings are the main achievements:</p> <ol style="list-style-type: none"> 1. Basic information in the field of Transportation have been collected and organized. The information has been analyzed and future development scenarios are proposed. 2. Future vision of urban transportation has been determined; Short-term, Medium/long-term cooperation strategies are determined. 3. Report on Preliminary Design for the Rehabilitation of Bridges on Main Roads in Kabul, Afghanistan has been revised. 4. An outline design of flyover for the most congested intersection (Sara-e-Shamali) in Kabul have been prepared.
6	Current Conditions	<p>The project duration was initially for 13 months from 2021/02/01-2022/02/28. The basic data and conducting ground traffic survey to grasp the actual urban public transportation and traffic condition were collected before 2021/08/15. According to the project TOR, Data analysis, interpretation and identification of potential projects in the short- and mid-term were completed. Since August 2021, the de facto authority policy and vision has potentially been changed. Therefore, the project has been extended till end of March, 2023. The main purpose is to grasp the recent information on transportation policy change generally at countrywide and particularly in Kabul city. Furthermore, it aimed to search and explore current status of international supports, the major changes in the transport relevant reorganizational structures, changes in the top-management, technical staff and finally to found out how to provide possible technical and financial support in this field of urban transport and traffic management for the new government upon official recognition by international society.</p>



CHAPTER 2 LAND TRANSPORT MAJOR CORRIDORS

2-1 Introduction/Background:

Afghanistan is a landlocked country bordered on the east and south by Pakistan (2,670 km); on the north by Tajikistan (1,357 km), Turkmenistan (804 km), and; Uzbekistan (144 km), on the west by Iran (Iran 921 km) and on the extreme northeast by China (91 km). Afghanistan's terrain ranges from plains in the northwest and southwest to high mountains in the remainder of the country. The country has a land area of 652,000 square kilometers (km²) and an estimated population of about 34.3 million people in 2022 (based on the Afghanistan National Statistics and Information Authority (NSIA) April 2022 report), the population density is 53 people per km².

Afghanistan's no direct access to the seaports, mountainous terrain, increase in natural disasters, and dispersion of population over large area results in high transport costs and the trade dependent on the performance of the land transport sector. The country is struggling to afford the construction and maintenance cost of the transport network that would enable it to continue and improve smooth logistic trade with the surrounding countries and the rest of the world. On the other hand, the number of trucks that can enter from Afghanistan to Pakistan is very limited and Pakistan create problems such as close the border or delay the process of crossing trucks when Afghan agriculture products such as vegetables and fresh fruits are ready for export (recently coal and other Afghanistan mineral loaded trucks are easily allowed to enter Pakistan). During Mr. Ghani administration, logistics trading was activated by air corridors, and flights to China, India, Iran, Kazakhstan, Kuwait, Pakistan, Russia, Saudi Arabia, Tajikistan, Turkey, Uzbekistan, and United Arab Emirates. In addition, the government was focusing on export promotion, such as holding trade fairs in Delhi and Dubai. So far, the de facto authority seems to be aiming for economic management with international trade in mind, such as requesting each country to resume international corridors and allowing the continuation of railway development. Therefore, three major airports such as Kabul, Herat and Kandahar airports operation has been contracted with United Arab Emirates (UAE).

This chapter will investigate the planning and maintenance status of logistic routes (land corridors) from Afghanistan to Iran, Uzbekistan, Tajikistan, and other neighboring countries and propose necessary systems and policies. In addition, as individual projects, the necessity of developing border facilities (OSBP: One Stop Border Post), dry ports, cargo transshipment facilities, etc., and the amount of cargo handled based on existing materials will be organized.

However, field surveys and collection of primary data were not within the remit of this report that's why this chapter is based on a detailed literature review and analysis of the data received from secondary sources. The data and analyzing were used to find the grasp the existing condition of land corridors, government policies and make some recommendations based on the data.

2-2 Broader Area Transport Network

2-2-1 Present Condition

Afghanistan is geographically important for logistics between Central Asian countries and the Arabian Sea, as all traffic must pass through the country. After the end of the Taliban regime in 2001, the coordination of the bilateral dialogue between Economic and Social Commission for Asia and the Pacific (ESCAP) and the Ministry of Public Works was resumed. Afghanistan shared their roads information with the Asian Highway experts in the meeting held in May 2002. After reviewing, several Afghanistan major highways were granted the status of Asian Highways. Table 2-2-1 shows the list of Asian Highways passing through Afghanistan.

Despite the geographical importance of Afghanistan, the country is facing severe challenges in supporting regional transport. The challenges include unstable political conditions, poor security, lack of physical infrastructures, weak organizational capabilities of the ministries responsible for transportation, poor maintenance of available infrastructures, corruption, poor border procedure, and so on.

Table 2-2-1 Asian Highways Crossing Afghanistan

AH Route No.	AH Section No.	Province	City/Town Name at Start Point	City/Town Name at End Point	Section Length (km)
AH1	1	Nangarhar	Torkham	Jalalabad	77
AH1	2	Nangarhar, Kabul	Jalalabad	Kabul	147
AH1	3	Kabul, Wardak, Ghazni	Kabul	Ghazni	170
AH1	4	Ghazni, Zabul, Kandahar	Ghazni	Kandahar	310
AH1	5	Kandahar, Helmand	Kandahar	Nahri Sarraj	166
AH1	6	Helmand, Farah	Nahri Sarraj	Dilaram	115
AH1	7	Farah	Dilaram	Farah Road	124
AH1	8	Farah, Herat	Farah Rod	Herat	202
AH1	9	Herat	Herat	Islam Qala	120
AH7	1	Kunduz	Border of Tajikistan	Shirkhan	1
AH7	2	Kunduz	Shirkhan	Kundus	63
AH7	3	Kunduz, Baghlan	Kundus	Polekumri	100
AH7	4	Baglan	Polekhumri	Dushi	52
AH7	5	Baghlan, Parwan	Dushi	Jabalsaraj	108
AH7	6	Parwan, Kabul	Jabalsaraj	Kabul	64
AH7	7	Kandahar	Kandahar	Speenboldak	105
AH62	1	Balkh	Hairatan	Mazar-e-sharif	120
AH71	1	Farah, Nimroz	Dilaram	Chahansur	160
AH71	2	Nimroz	Chahansur	Zarang	62
AH76	1	Baghlan, Samangan	Polekhumri	Kholm	108
AH76	2	Balkh	Holm	Mazar-e-sharif	69
AH76	3	Balkh, Jozjan	Mazar-e-Sharif	Sheberghan	150
AH76	4	Jozjan	Sheberghan	Andkhoy	69
AH76	5	Jozjan, Faryab	Andkhoy	Maimana	140
AH76	6	Faryab	Maimana	Qaisar	70
AH76	7	Faryab	Qaisar	Bala Murghab	90
AH76	8	Faryab, Herat	Bala Murghab	Herat	290
AH77	1	Parwn, Bamyan	Jabalsaraj	Bamyan	193
AH77	2	Bamyan, Ghor	Bamyan	Chaghcharan	344
AH77	3	Ghor, Herat	Chaghcharan	Herat	112
AH77	4	Herat	Herat	Tourghondi	119

Source: Asian Highway Database 2015, UN ESCAP

2-2-2 Future Condition

Afghanistan provides access to trade along north-south and east-west Asian corridors, through Central Asia. As a “geographic center of gravity”, the country has the potential to play a special role in regional transport. So, the Central Asia Regional Economic Cooperation (CAREC) Program’s four of six transport corridors traversing Afghanistan which connect the country to the outside world and can connect Asia’s four different regions to each other.

Before going into details about the CAREC corridors traversing through Afghanistan, CAREC will be briefly explained below.

The Central Asia Regional Economic Cooperation (CAREC) Program is a program established in 1997 by the Asian Development Bank (ADB) to encourage economic cooperation among countries in the Central Asian region. It is a committed partnership of 11 countries: Afghanistan, Azerbaijan, People’s Republic of China, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan,

Turkmenistan, and Uzbekistan³⁶. The CAREC region is at the heart of the rapidly growing and integrating Eurasian continent. ADB serves as the CAREC Secretariat.

The CAREC program covers four sectors: transport, trade facilitation, energy, and trade policy. Transport and trade facilitation sectors share a development vision that identifies three transport goals:

- Establish competitive transport corridors across the CAREC region;
- Facilitate efficient movement of people and goods across borders; and
- Develop safe, people-friendly transport systems.

CAREC focuses on the development of six competitive transport corridors shown in Figure 2-3-1 that link north, south, east, and west through the pivot of Central Asia. According to the CAREC Secretariat, the corridors were defined to establish competitive corridors. They reflect trade flow patterns, facilitate the movement of people and goods across the region, and provide sustainable, safe, and user-friendly transport networks. Critically, they also connect the mainly landlocked CAREC countries to wider regional and global networks. CAREC Corridor-2, Corridor-3, Corridor-5, and Corridor-6 are four of the six competitive transport corridors passing through Afghanistan. The corridors passing through Afghanistan are briefly explained below:

CAREC Corridor 2, which is the longest covers 9,900 km of road connecting the People Republic of China, the Mediterranean, Afghanistan, Azerbaijan, Kazakhstan, and the Kyrgyz Republic. There is a high demand for regional and domestic cargo movements of manufactured goods; industrial machinery and metals; and food, cotton, and yarn exists. Oil products presently dominate the transport pattern in the corridor but in the future, this will drastically reduce with the construction of new pipelines. However, as this corridor traverses several countries, the number of Border Crossing Points (BCPs) in Corridor 2 is higher compared to other corridors, which may cause a delay in transit and transport. According to the map, Corridor 2 has 3 routes and one of them passes Afghanistan. 700 km of the Afghanistan's ring road which is yet to be constructed is the part of the CAREC Corridor 2.

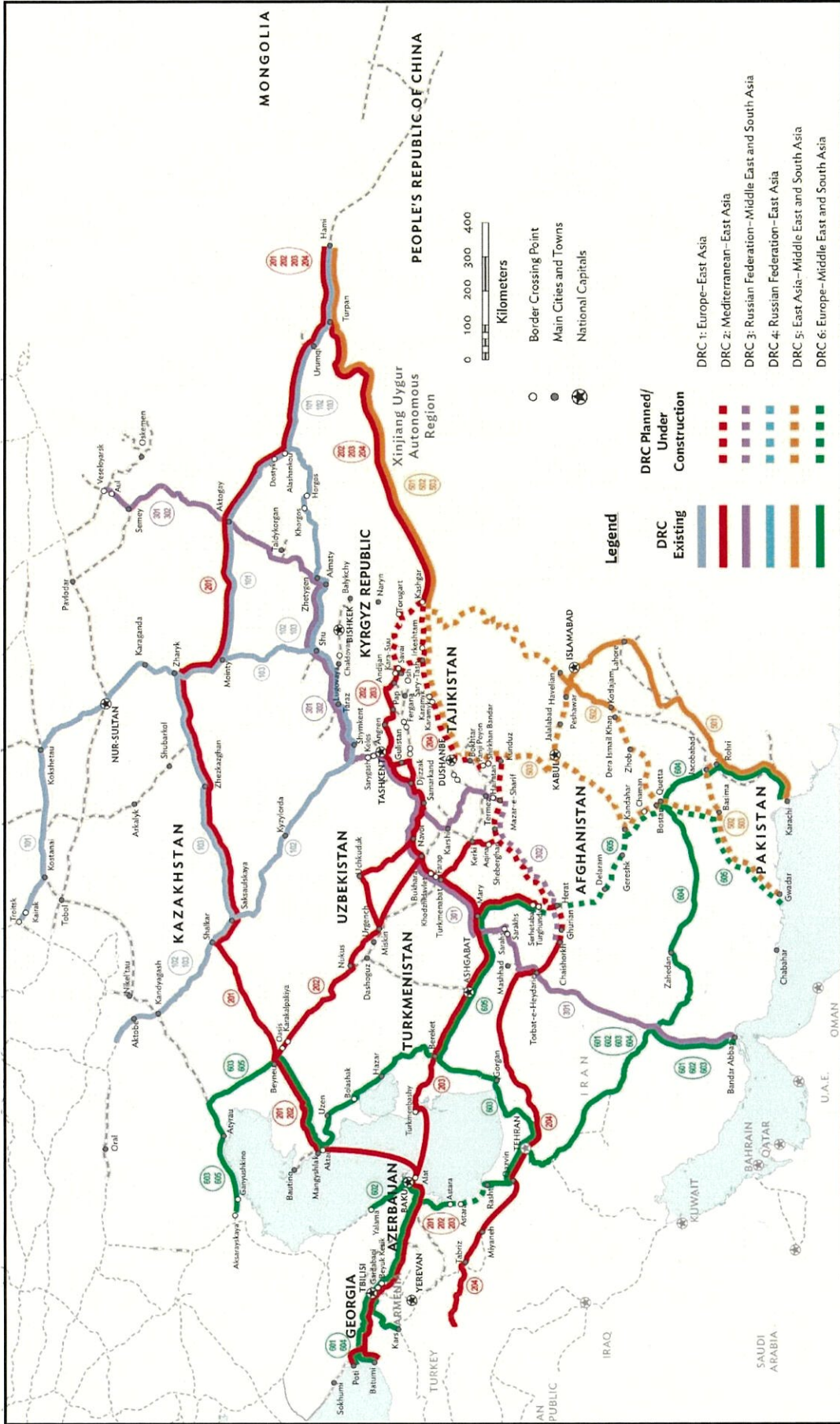
CAREC Corridor 3 has 6,900 km of roads and 4,800 km of railways, running from west and south of Siberian region of the Russian Federation through Afghanistan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan to the Middle East and South Asia. The region in Kazakhstan from Aul to Merke forms the trunk section of Corridor 3, which splits into two at Merke-Chaldovar (KAZ-KGZ). Corridor 3a passes through Uzbekistan and Turkmenistan, ending at Sarahs-Sarakhs (TKM-IRN). Corridor 3b crosses Kyrgyz Republic, Tajikistan, and Afghanistan and terminates at Islam Qala-Dogharoun (AFG-IRN).

CAREC Corridor 5 connects the East Asia, Middle East and South Asia (Afghanistan, the Kyrgyz Republic, Pakistan, and Tajikistan). Inside Afghanistan, that section of CAREC Corridor starts at the Afghanistan-Tajikistan border crossing point of Shirkan Bandar on an alignment passing through Kunduz, Pul-e-Khumri, Dosh, Salang, Kabul and either onward through Jalalabad to the Afghanistan-Pakistan border crossing point of Torkham or onward to Ghanzi, Qala and Kandahar to the Afghanistan-Pakistan border crossing point of Chaman.

CAREC Corridor 6 connect Europe to the Middle East and South Asia (Afghanistan, Kazakhstan, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan). Corridor 6 has two routes and one of them passes Afghanistan. Inside Afghanistan, that section of CAREC Corridor starts at the Afghanistan-Uzbekistan border crossing point of Hairatan on an alignment passing through Mazar-e-Sharif, Andhkoy, Herat and either onward to the Afghanistan-Iran border crossing point of Islam Qala Islam or onward to Kandahar to the Afghanistan border crossing point of Chaman.

2-3 Afghanistan National Highway Network

Afghanistan road network comprised of national highways, provincial roads and district roads is about 19,327 kilometers. The national highways, including the international connections, cover a length of about 6,854 km. The length of the provincial roads, connecting centers of the provinces and provinces to the national highways, are 1394 km. District roads, which connects district centers and districts to the provincial roads are contained 11,079 km. Table 2-3-1 below shows the length of the national highways, provincial roads, and district roads based on NRAP 2018 survey.



Source: CAREC Transport Strategy 2020

Figure 2-3-1 CAREC Road Corridors (Source: CAREC Transport Strategy 2020)

Table 2-3-1 Length of Major Roads in Afghanistan

Road Class	Length (km)			Total (km)
	Asphalt	Gravel	Earthen	
National Highways	4,598	2,042	214	6,854
Provincial Highways	813	464	117	1,394
District Roads	2,482	7,853	744	11,079
Total (km)	7,893	10,359	1,075	19,327

Source: Road Sector Strategy 2019 to 2023 by MOPW

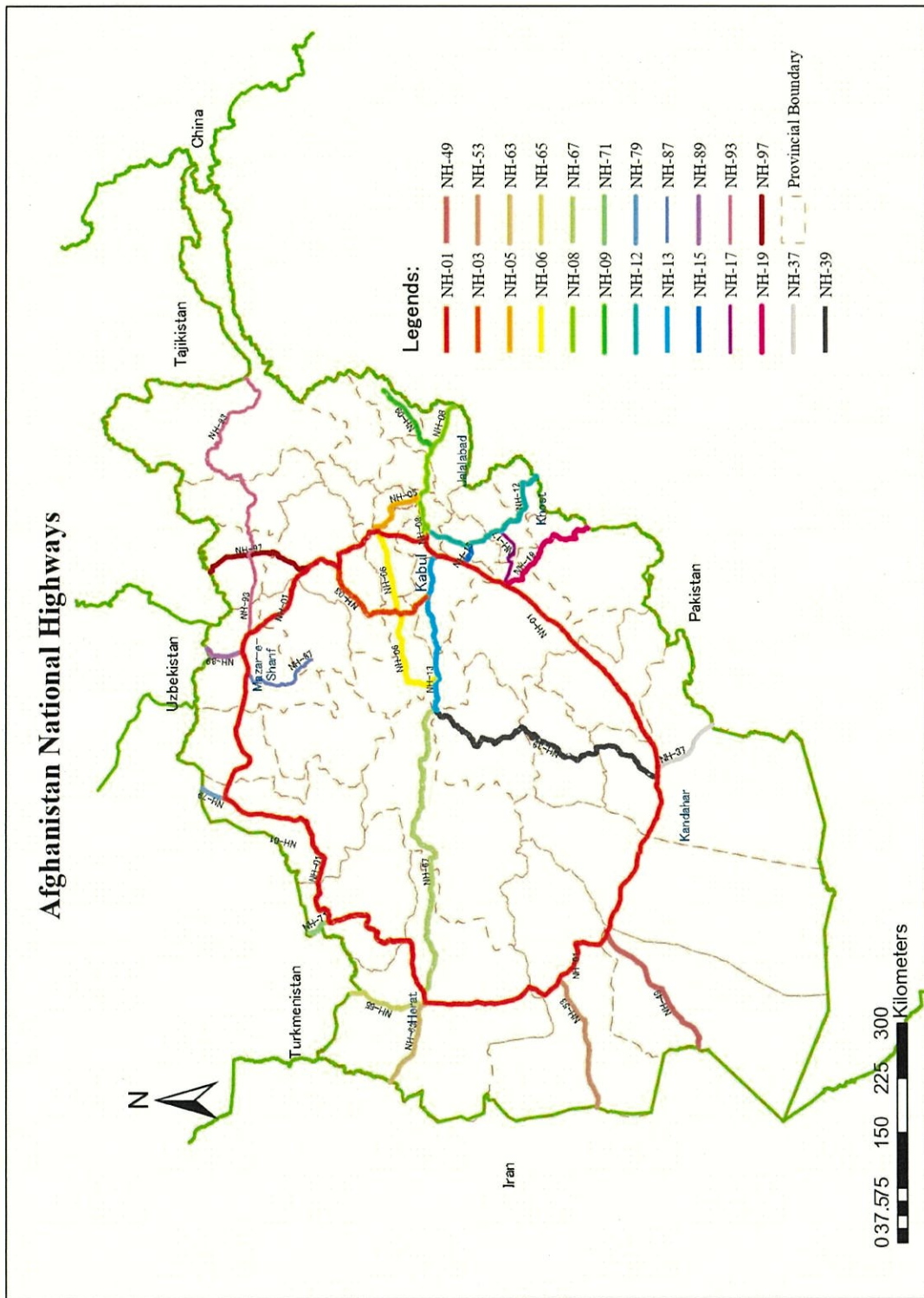
As our main focus of this chapter is land corridors connecting Afghanistan to the neighboring countries or the corridors important for improving trade, some of the main highways will be explained as below.

2-3-1 Main Highways:

The backbone of the national highways is the Ring Road which traverses the country along two primary corridors from Kabul in the east to Herat in the west (Kabul–Mazar-e-Sharif– Sheberghan–Mehmana–Herat-Kandahar-Kabul) and the international links to neighboring countries (Iran, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan).

Details of some important national highways are illustrated below and shown on map in Figure 2-3-2. The distance might be not exact as the roads have been digitized using commercial GIS software and MoPW maps.

- Ring Road (NH01): National Highway 01 (NH01), the Ring Road of Afghanistan is a 2,200 kilometer two-lane road network circulating inside Afghanistan, connecting the major cities (clockwise): Kabul, Maidan Shar, Ghazni, Kandahar, Delaram, Herat, Maymana, Sheberghan, Mazar-e-Sharif, Puli Khumri, and back to Kabul. Afghanistan Ring road is part of Asian Highway and CAREC Corridor as well. NH01 is consisted of following major sections:
 1. Section-1 (Kabul to Khandahar): It connects Kabul with Kandahar. It length is approximately (483) Km It passes through Kabul, Maidan Wardak, Ghazni, Zabul and finally reaches to Kandahar. This section is also part of Asian Highway 01 (AH 01).
 2. Section-2 (Kandahar to Herat): It is located between Kabul and Herat provinces of Afghanistan. Its length is approximately (816.6) Km. It passes through Kabul, Maidan Wardak, Ghazni, Zabul, Kandahar, Helmand, Nemroz, Farah and finally reaches Herat province. It is a major part of ring road. This section is also part of Asian Highway 01 (AH 01).
 3. Section-3 (Herat to Mazar-e-Sharif): It is located between Herat province and capital of Balkh province (Mazar-e-sharif) of Afghanistan. Its length is approximately (729.8) Km. It passes through Herat, Badghis, Faryab, Jawzjan and finally reaches Balkh province. This section is also part of Asian Highway 76 (AH 76) and CAREC Corridor.
 4. Section-4 (Mazar-e-Shari to Kabul): It is located between the capital of Balkh province Mazar-e-sharif and Kabul city. Its length is approximately (426.6) Km. It passes through Mazar-e-sharif, Samangan, Baghlan, Parwan and finally reaches capital Kabul. This section is also part of Asian Highway 07 (AH 07) and Asian Highway 07 (AH07) and CAREC Corridor.
- Behsud District to Doshi to Road (NH03): This road starts at Behsud District (Connection with NH13), passes Bamiyan and ends at Doshi district (Connection with NH01). The total length is approximately 218 km.
- Charikar to Surobi Road (NH05): The road starts at Jabal Seraj area where it has connection with NH01 and ends at surobi area where it connects to NH08. The approximate length of the road is 100 km.
- Panjau to Charikar Road (NH06): The road starts at Punjab district of Bamiyan where is has connection with NH13. The road passes through Bazara-e-Yakawlang and connects to ring road in Charikar.



Source: Prepared by JICA Project Team Based on Data and Reports from MOPW

Figure 2-3-2 Afghanistan National Highways

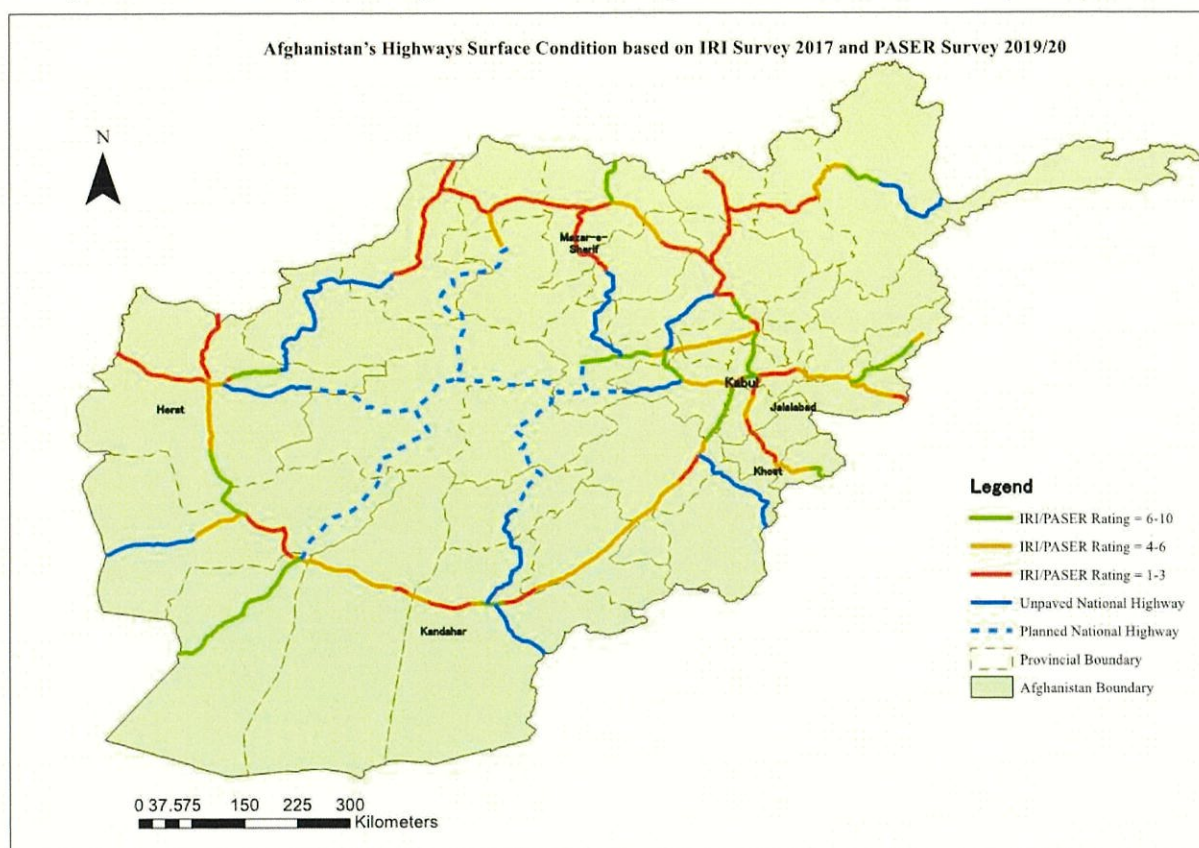
- Kabul to Torkham Road (NH08): Kabul to Torkham highway mainly consist of two sections, section-1 connects Kabul and Nangarhar provinces of Afghanistan. It passes through Surobi district of Kabul, Laghman province and finally reaches to Jalalabad city (capital of Nangarhar) of Nangarhar province. The second portion starting from Jalalabad city and finishing at Torkham border. Total length of this main transit road is 232 km. This section is also part of Asian Highway 01.
- Jalalabad to Arandu Road (NH09): About 120 km long road starts from Jalalabad to Asmar district of Kunar province.
- Kabul to Ghulam Khan (NH12): The road starts at Kabul passes through Baraki, Gardez, Matun, Khost and read Ghulam Khan border. The approximate length of this national highway is 256 km.
- Maidan to Punjab (NH13): The road starts at Maidan district of Wardak province and finished at the border of Bamyan and Ghor provinces. The end point of the road has connection with NH39 and NH67 and the length of the road is 261 km. This section is also part of Asian Highway 77 (AH 77).
- Sayedabad to Pul-e-Alam (NH15): This 35 km road starts at Sayedabad of Wardak province (NH01) and ends at Pul-e-Alam of Logar province (NH-12).
- Ghazni to Gardez (NH17): This major road is a about 92 km long which connects Ghazni to to Gardize province and also connects Ghulam Khan border to ring road via NH12.
- Ghazni to Gomal (NH19): This road connects Gomal (border with Pakistan) to the ring road at Ghazni province. The length of this road is 188 km.
- Kandahar to Spin Boldak (NH37): The approximate length of the road is about 104 km and it connects Kandahar (NH01) to border with Pakistan at Spin Boldak.
- Panjau to Kandahar (NH39): The 495 km road starts at Panjau (connection with NH13 and NH67) and ends at Kandahar (NH01).
- Delaram to Zaranj (NH49): This important 220 km road connects NH01 at Delaram area to Zaranj border with the Islamic Republic of Iran.
- Farahrod to Iran Border: The 196 km road road connects NH01 at Farahroad with Iran border. The road is connected with highway number 68 of Iran.
- Herat to islam Qala (NH63): This road connects Afghanistan to Chabahar and Bandar Abbas. The road start at Herat province where it has connection with NH01, NH67 and NH65 and ends at the Afghanistan border with Iran. This section is also part of Asian Highway 01 (AH 01).
- Herat to Torghondai Border (NH65): This road connects NH01 and NH63 (at Herat) to Torghondai, border with Turkmenistan with the approximate length of 117 km. This section is also part of Asian Highway 77 (AH 77).
- Panjau to Herat (NH67): The road connects Panjau (NH13 and NH39) to Herat (NH67 and NH01) with an approximate length of 510 km. This section is also part of Asian Highway 77 (AH 77).
- Bala Murghab to Maruchak (NH71): This 35 km road connect Bala Murghab (connection with NH01) to Maruchak (border with Turkmenistan).
- Daulatabad to Andkhoy (NH79): The road has 34 km of length and it connects ring road at Daulatabad area to Andkhoy.
- Mazar-e-Sharif to Hairatan (NH89): The road is starts at the connection point with NH01 at Mazar-e-Sharif and ends at Hairatan Border with Uzbekistan. The road length is about 56 km and it is one of the important corridors. This section is also part of Asian Highway 62 (AH 62).
- Mazar-e-Sharif to Ishkashim (NH93): The road start at Mazar-e-Shari (NH0104) and goes through Kunduz, Faidzabad and ends at Ihkasim, border with China. The total length of the road is about 502 km.
- Baghlan to Shirkhan Bandar: This road has a length of 163 km starting at Pul-e-Khumri of Baghlan through Kunduz to Shirkhan Bandar, border with Tajikistan.

2-3-2 National Highway Pavement Surface Condition

Currently, road transport is the major means of transportation in Afghanistan. Roads are very important in a country like Afghanistan, which is landlocked and does not have proper air and rail transport as well. Majority of the roads in the country were destroyed during the Russian invasion and civil war. But after the political changes in 2002, most of the destroyed main roads were reconstructed and some new roads were constructed as well. But due to poor security, and lack of proper road asset management the newly constructed/rehabilitated roads are damaging rapidly.

As per the data unofficially received from the Ministry of Public Work in May 2022, National Rural Access Road (NRAP) completed the survey of surface condition in 2017. NRAP used the International Roughness Index (IRI) method to grasp the pavement condition of the major roads. The IRI is the roughness index most commonly obtained from measured longitudinal road profiles. It is calculated using a quarter-car vehicle math model, whose response is accumulated to yield a roughness index with units of slope. The roads were ranked from 1 to 10, equivalent to sever distress with extensive loss of the surface integrity to no distress respectively. Table 2-3-2 explains the equivalent condition of ranking.

Additionally, Pavement Surface Evaluation and Rating (PASER) survey was completed by MoPW in 2020. As per the MoPW, PASER survey conducted was more accurate and was completed under Asian Development Bank (ADB) project. Road conditions were ranked in the same way in PASER rating as earlier done with the IRI survey shown in Table 2-3-2. The JICA project team prepared GIS map (Figure 2-3-3) based on the data provided by the MoPW showing the surface condition of major Afghanistan.



Source: Prepared by JICA Project Team Based on IRI/PASER Survey Conducted by MOPW/ADB

Figure 2-3-3 Surface Condition of Afghanistan's Major Roads

The IRI/PASER survey conducted shows that the main roads in Afghanistan are deteriorating rapidly. The reasons of rapid deterioration can be summarized as below:

- **Low Organizational and Institutional Capacity:** MOPW is responsible for planning, designing, implementation, operation and maintenance of major roads of country. As per the Afghanistan transport master plan developed by ADB in 2017, MOPW lacks the organizational and technical capacity to independently perform their operations. The low capacity of MOPW has caused

Table 2-3-2 IRI Rating, Distress and Condition

Rating	Distress	Condition
10	None.	New construction.
9	None.	Recent overlay. Like new
8	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater). All cracks sealed or tight (open less than 1/4").	Recent sealcoat or new cold mix. Little or no maintenance required.
7	Very slight or no ravelling, surface shows some traffic wear. Longitudinal cracks (open 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10' or more apart, little or slight crack ravelling. No patching or very few patches in excellent condition.	First signs of aging. Maintain 7 with routine crack filling.
6	Slight ravelling (loss of fines) and traffic wear. Longitudinal cracks (open 1/4"- 1/2"). Transverse cracks (open 1/4"- 1/2"), some spaced less than 10'. First sign of block cracking. Sight to moderate flushing or polishing. Occasional patching in good condition	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
5	Moderate to severe ravelling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open 1/2" or more) show first signs of slight ravelling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
4	Severe surface ravelling. Multiple longitudinal and transverse cracking with slight ravelling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).
3	Closely spaced longitudinal and transverse cracks often showing ravelling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (greater than 1/2" but less than 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
2	Alligator cracking (over 25% of surface). Severe rutting or distortions (2" or more deep). Extensive patching in poor condition. Potholes	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.
1	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

Source: Data unofficially received from MOPW 2022

- the construction of low quality roads and poor operation and maintenance.
- **Sub-standard Road Construction:** Roads construction in Afghanistan started just after political changes in Afghanistan in 2001. Some roads were constructed below the required engineering standards due to poor construction supervision, corruption, and low capacity of the construction company.
 - **No Proper Maintenance System:** Billions of dollars were spent in the development of the transport sector in past years but very limited resources were spent on the maintenance of the developed infrastructures. As per the Transport Sector Master Plan developed by ADB, there is no proper road asset management system for the maintenance of the constructed roads.
 - **Climate Change:** Afghanistan's transport sector is vulnerable to climate change impacts. Afghanistan's land transport has already been, and will continue to be, heavily affected by the negative impacts of climate change. Heaving flooding has caused mountain sliding (road blockage) and washing of roads.
 - **Overloaded Trucks:** There is no proper system to control overloaded trucks in the country and often the trucks importing goods from neighboring countries are overloaded. The overloaded trucks stress the road structure beyond its safe bearing capacity. This causes a drastic reduction in the pavement service life and gets destroyed before its design life.
 - **Explosions and Security:** Explosions and security are other factors that caused damage in the past 20 years to Afghanistan roads. The bomb blast and the burning of oil tankers have destroyed roads and roads structures.

2-4 Afghanistan Railway System

Afghanistan provides the link between Central Asian and South Asian countries, so the country can play a vital role in intraregional trade. Utilizing the geopolitical position in Asia, the Afghan government (2001 to 2021) aimed to become a transport and transit hub in the region. Fostering regional connectivity will help countries improve productivity in accordance with natural comparative advantage, benefit from complementarities, and thus increase output, trade, and consumer welfare.

Afghanistan Rail Road Network Development Plan has been based on several studies (prefeasibility and feasibility studies) carried out by the ADB in 2010, by the Railway Department of Government of Pakistan in 2012, by the USCENCOM (US Central Command) in collaboration with different Sectoral Ministries of Government of Islamic Republic of Afghanistan in 2013, MCC (Metallurgical Corporation of China) in 2013, SudaPraha Czechoslovakia in 2013, ADB Supported Study through CANARAIL Consultants in 2016 and CAREC Railway Sector Assessment for Afghanistan 2021.

The extensive studies and reports are accepted by the Ghani government and ARA (Afghanistan Railway Authority) developed ANRP (Afghanistan National Railway Plan) with a vision to construct over 5000 km of railway track, 4 Dry ports and 8 Multimodal Hubs. The Regional Connectivity has already been established through Railway Freight Corridors with Uzbekistan, Turkmenistan, and Iran with the plan to connect to other CIS Countries, West Asia through Iran and to South Asia through Pakistan. Number of Bilateral and Multilateral Cooperation Agreements have been signed to establish the Regional Railway Infrastructure connecting Afghanistan with all the Sub-continent of Asia and with Europe.

2-4-1 Existing Status of Afghanistan Railway System

The total length of railways in Afghanistan is only about 104 km, which includes Hairatan to Mazar-e-Sharif railway line (75 km), Aqina station (16 km), Turghundy Station (13 km). So, Afghanistan has three railway lines in the north of the country. The first is between Mazar-e-Sharif and the border town of Hairatan in Balkh province, which then connects with Uzbekistan railway to Afghanistan railway. The second link connects Torghundi in Herat province with Turkmen Railways. The third is between Turkmenistan and Aqina in Faryab province of Afghanistan, which extends south to the city of Andkhoy.

However, a nationwide railway network was planned by the Afghan government in the past 20 years with the help of the international community. Pre-feasibility or feasibility studies for most of the planned railway network have been completed and the next stages were planned to be executed. Table 2-4-1 and Figure 2-4-1 shows the current status of the Afghanistan Railway planned project.

Table 2-4-1 Status of Prefeasibility and Feasibility Study Preparation, 2018

No	Railway Section	Length (km)	Stage of Project	Status
1	Wakhan–Badakhshan	367	PFS	Planned
2	Badakhshan–Kunduz	199	PFS	Planned
3	Kunduz–Qala-e-Zal	55	FS	Completed
4	Shirkhan Bandar–Naibabad	123	FS	Completed
5	Hairatan–Mazar-e-Sharif	75	Operational	Operational
6	Mazar-e-Sharif–Herat (Robat-e-Parian)	656	FS	Completed
7	Aqina Station	16	Operational	Operational
8	Aqina–Andkhoy	24	Construction	Ongoing
9	Andkhoy–Sheberghan	67	FS	Completed
10	Turghundy Station	13	Operational	Operational
11	Turghundy–Sanobar	12	FS	Completed
12	3rd section of Khaf–Heart	62	Construction	Ongoing
13	4th section Phase 1 of Khaf–Herat	43	Construction	Ongoing
14	4th section Phase 2 of Khaf–Herat	44	Detail Design	Ongoing
15	Herat–Kabul	1,101	PFS	Completed
16	Zarang–Delaram	204	PFS	Planned
17	Lashkargah–Baramacha	254	PFS	Planned
18	Kandahar–Spinboldak	96	FS	Completed
19	Spinboldak–Chaman	7	FS	Completed
20	Pol-e-Alam–Khost–Ghulam Khan	175	PFS	Planned
21	Logar–Mis Aynak Copper	12	PFS	Planned
22	Kabul–Jalalabad	138	PFS	Completed
23	Jalalabad–Torkham	75	FS	Ongoing
24	Kabul–Bamyan–Kunduz	452	PFS	Planned
25	Bamyan–Ghor–Herat	574	PFS	Planned
Cumulative length of track covered by studies		4,844		

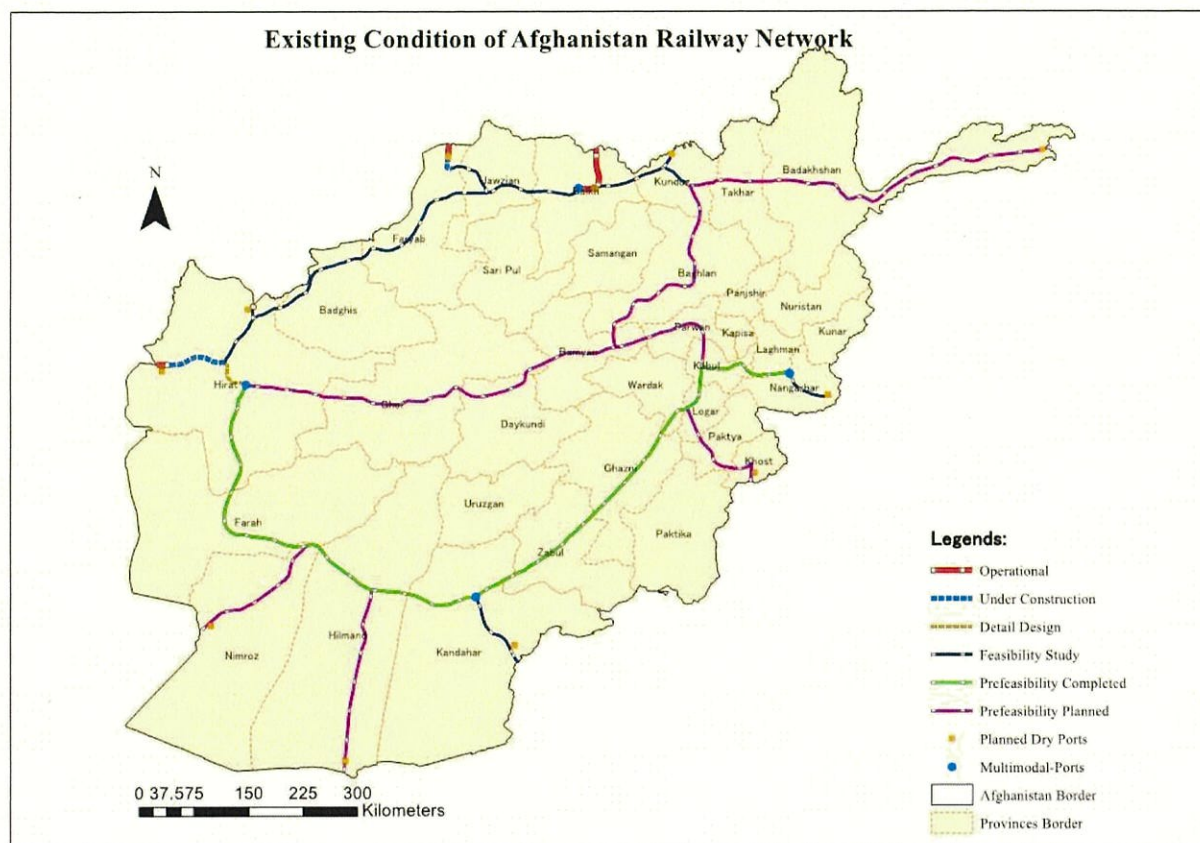
Source: Afghanistan Railway Authority 2020.

2-4-2 Planned Railway Network

Afghan government developed the Afghanistan National Railway Plan (ANRP) in 2013 to provide the basis for implementing the railway development directions set by the ANDS. The ANRP envisages developing a circular “ring-railway” network to connect the country’s main population centers and provide links to border-crossings with each of Afghanistan’s neighbors. The ring-shaped network would circumvent the high mountains of the central and northeastern parts of the country (Hindu Kush) which would make construction easier and less costly.

The railway would generally be located near to the national highway ring road that is under construction, so that while the railway network is still being developed it would be possible to offer multimodal transport services using railway on completed sections and road transport on uncompleted sections. In

addition to serving domestic, import and export traffic, the government expects the railway to be attractive for regional transit traffic, including traffic between Central Asian countries (including western PRC), between these countries and the ports of Pakistan and Iran, and between Central Asia and South Asia.

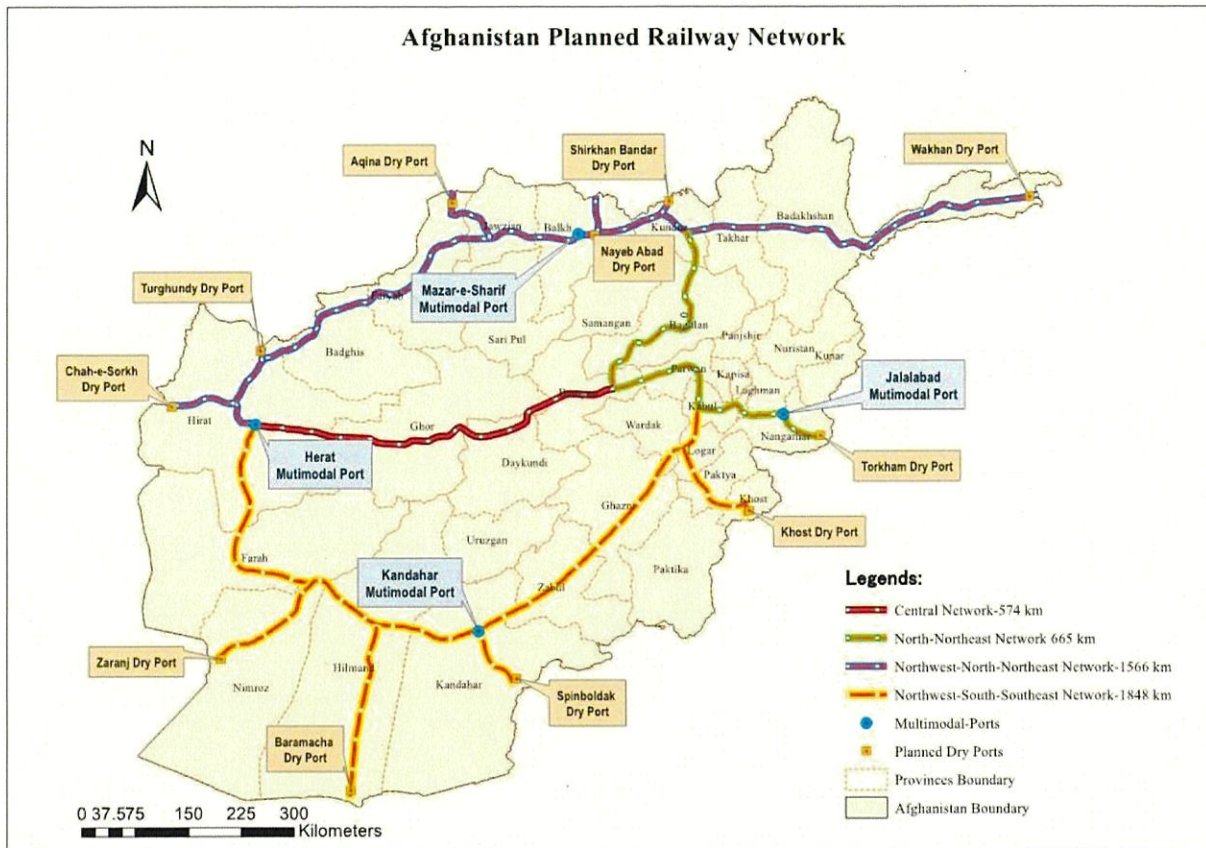


Source: Prepared by JICA Project Team based on ARA 2020 Data and CAREC 2021 Report

Figure 2-4-1 Existing Condition of Afghanistan Railway

As per the CAREC Railway Sector Assessment for Afghanistan 2021, Afghan government planned to construct 4844 km long railway network shown in Figure 2-4-2. The planned network incorporates the establishing of eight dry ports to facilitate efficient cross-border movements. These will be located at Turghundy, Zaranj, Baramacha, Spinboldak, Khost, Torkham, Nayeb Abad, and Aqina. It will also include four multimodal hubs to support freight consolidation and efficient transfers between railway and road. These will be at Herat, Kandahar, Jalalabad, and Mazar-e-Sharif. The planned railway network is divided into the following sections:

- Central Corridor (574 km): Between Herat and Bamyan. Much of the corridor is in mountainous terrain.
- North–Southeastern Corridor (665 km): Between Kunduz, Bamyan, Kabul, and the Pakistan border at Torkham. Much of the corridor is in mountainous terrain.
- Northwestern–North–Northeastern Corridor (1,970 km): Between the Iran border crossing near Chah-e-Sorkh, Herat, the Turkmenistan border crossings at Turghundy and Aqina, Mazir-e-Sharif, Hairatan, the Tajikistan border near Shirkhan Bandar, Kunduz, and the PRC border at Wakhan. East of Kunduz, the corridor is in mountainous terrain.
- Northwestern–South–Southeastern Corridor (1,831 km): Between Herat, the Iran border at Zaranj, the Pakistan border crossing at Baramacha, Kandahar, the Pakistan border crossings at Spinboldak and Khost, and Kabul. Parts of the corridor are in mountainous terrain. A shorter alignment option that has been discussed would cross directly from Herat to Kandahar rather than taking the longer route via Zaranj.



Source: Prepared by JICA Project Team based on ARA 2020 and CAREC 2021 Data

Figure 2-4-2 Afghanistan Planned Railway Network

2-4-3 Issues and Challenges on Railway Transport

Major Issues and challenges in railways transport in Afghanistan are summarized as below:

Political and Security Conditions: Security and political challenges have undermined Afghanistan’s progress towards socio-economic development. Since 2001 when the international community started rebuilding Afghanistan, the security condition was worsening slowly. In December 2014, the Afghan National Security Forces assumed responsibility from the international coalition to fight the insurgency. Since then, the forces have suffered high casualties, which had raised concerns about the stability of the government. But after August 2021, the country has been pushed a complex political and security conditions. It needs mentioning that the de facto authority is in favor of railway transport and they have already dialoged Uzbekistan, Iran, China and Pakistan to continue the railway projects.

Economic Conditions: Afghanistan’s transport sector was mainly based on international community cooperation and funds. After the de facto authority took over the charge of the country in August 2021, the international community stopped their cooperation with Afghanistan in the development of infrastructures including railways.

Rail Gauge: Selection of rail gauge is one of the major challenger for Afghanistan railways system development. The three major rail gauges in the world are the Russian, British, and Standard gauge. The standard gauge is used in China, Iran, the United States, Europe, South America, Australia, and much of Southeast Asia. To the north (and for the current seventy-five kilometers of the railway), the Russian gauge is used. Pakistan’s rail, initially constructed as part of the Indian rail system, uses the British gauge. Iran and China both use the Standard gauge. Since Afghanistan has no direct access to the sea for international shipment, the determination of what gauge is used within Afghanistan will establish primary shipping and trading partners for cross-country transit and access to international markets. There has been speculation that different gauges were developed to prevent suspect neighbors from being able to link to existing rail systems for easier invasion. Whatever the genesis of different gauges, Afghanistan

is unique in the world in that it is surrounded by neighbors who use all three gauges.

Technical Capacity and Experience: Besides the other challenges, Afghanistan is lacking the technical staff for planning, designing, constructing, and operation of railway facilities.

2-4-4 Current Status of Afghanistan Railway Plans

The railway sector of Afghanistan has been also strongly affected since August 2021. As the plans prepared by ARA during Mr. Ghani's presidency mostly relied on international community funds and cooperation, but the plans halted as the de facto authority took over the government. Most of the high-skill government employees left Afghanistan. However, due to the geographic importance of Afghanistan to neighboring countries, the following railway projects have been resumed or are planned to be resumed:

Akina-Andkhoy Railway Line: As per the Turkmenistan Embassy in Kabul, Akina-Andkhoy railway line construction resumed in Afghanistan in June 2022. As per the Embassy report, the Engineers and railroad specialists from Turkmenistan arrived in the town of Akina to continue the construction of the Akina-Andkhoy railway line. The total length of this railway line is about 30 km.

The Trans-Afghan Railway Line: According to the report from The Diplomat, The Trans-Afghan railway project is gathering momentum as Uzbekistan seeks access to Pakistan's ports. The rail line has the potential to shift Uzbekistan's status of landlocked to land-linked. The project is needed for Uzbekistan's economic security and to support trade with more distant nontraditional markets including in South Asia, Southeast Asia, and North America.

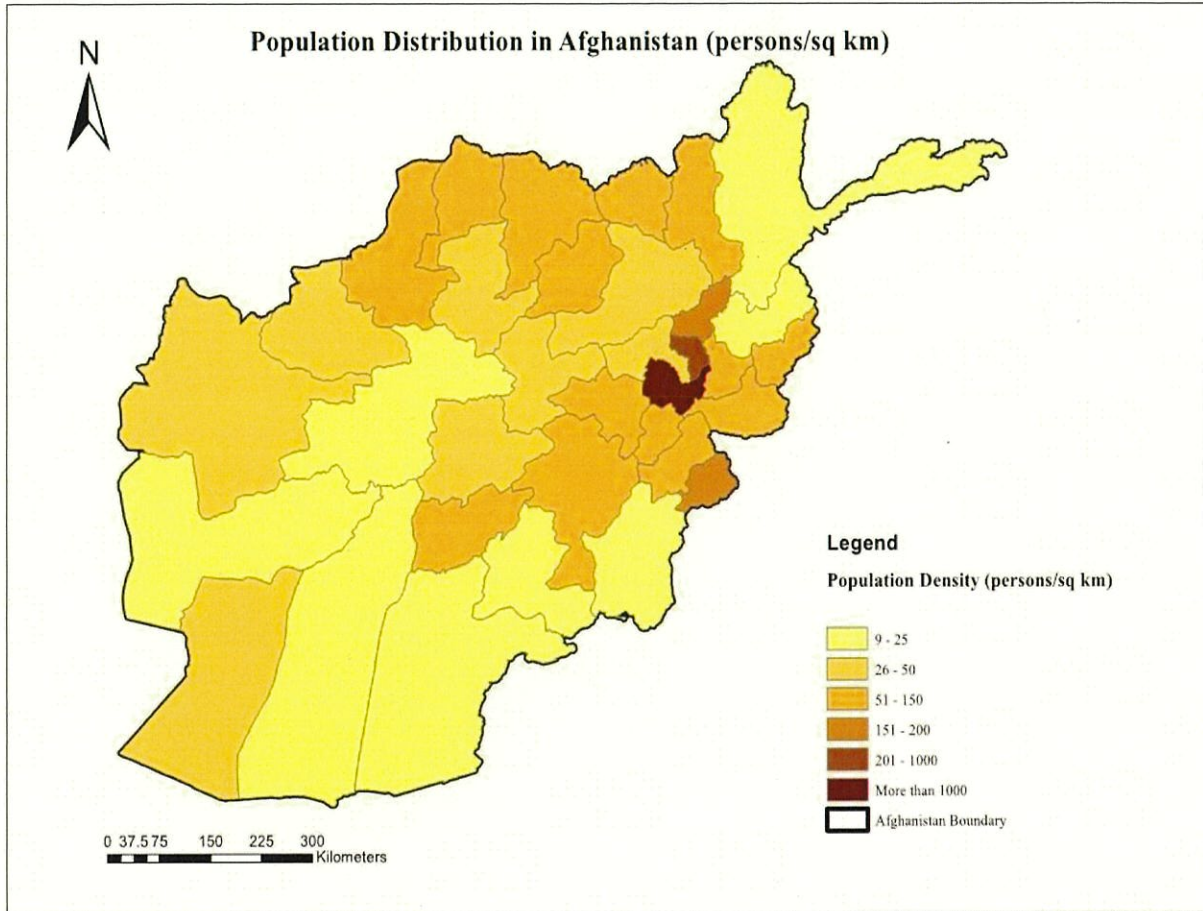
2-5 Logistics and Trade Facilitation in Afghanistan

2-5-1 Socioeconomic Characteristics

The estimated population of Afghanistan in 2022-23 is about 34.3 million persons, of which 70.6 % live in rural areas, 25.0 % live in urban areas and 4.4% are nomadic population. The population in Afghanistan is dispersed. The population density is the highest in capital Kabul and eastern and northern areas respectively. Figure 2-5-1 shows population distribution in the country.

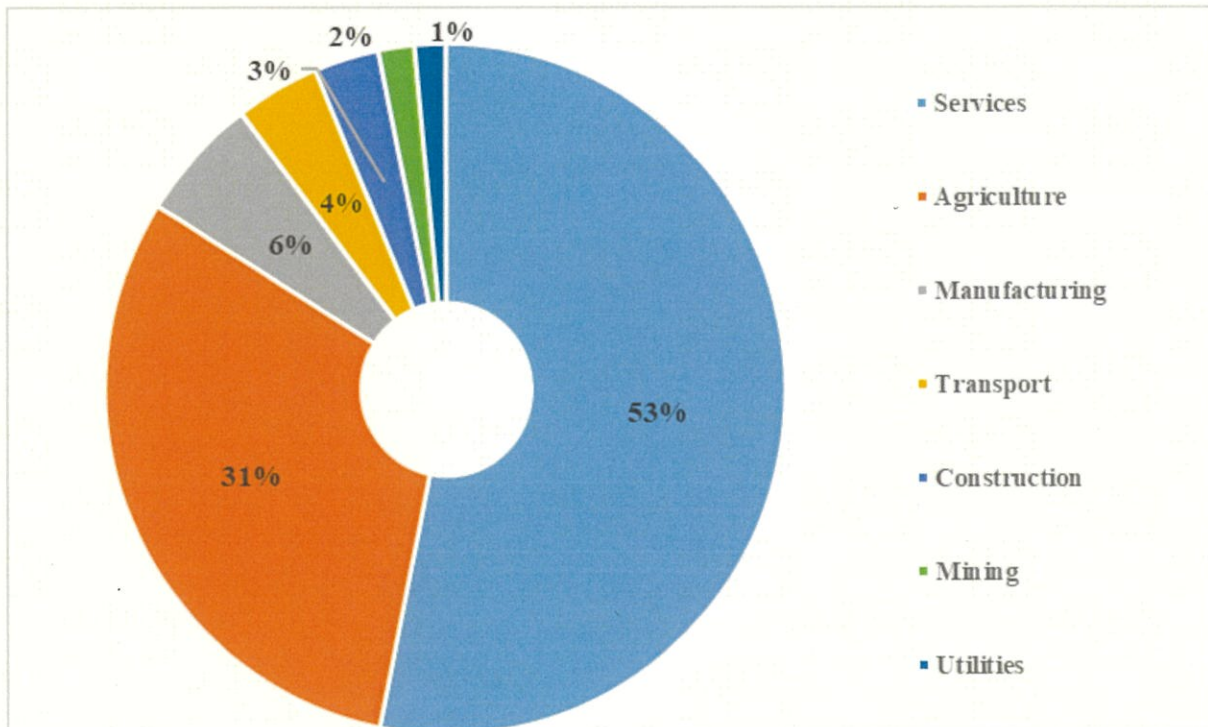
Afghanistan population distribution was analyzed using National Statistics and Information Agency (NSIA) population estimation for year 2022-2023. The population in Afghanistan is distributed, it means large road network is needed to keep the population connected. The population density is relatively high in the southeast, mainly in Kabul, and in the north in Mazar-e-Sharif but low in the southwest especially in the Helmand area.

Afghanistan has traditionally been an agricultural and pastoral economy: 70.6% of the population lives in rural areas, and agriculture provides employment for about 43% of the country's labor force, contributing 31% of the country's gross domestic product (GDP). The services sector, accounting for 51% of GDP, dominates economic activities. Other sectors such as manufacturing, transport, construction, mining and utilities contribute 16 percent of GDP while creating 19 percent of jobs in the country. The few larger-scale manufacturing enterprises are involved mainly in producing cement, steel bars and textiles. Continuing insecurity, the small size of the domestic market, high transport costs, the low level of both managerial and operational skills, and occasional shortages of raw materials have impeded a more substantial growth in manufacturing. Figure 2-5-2 and 2-5-3 shows Afghanistan GDP distribution by industry and major employment means percentage of the country respectively.



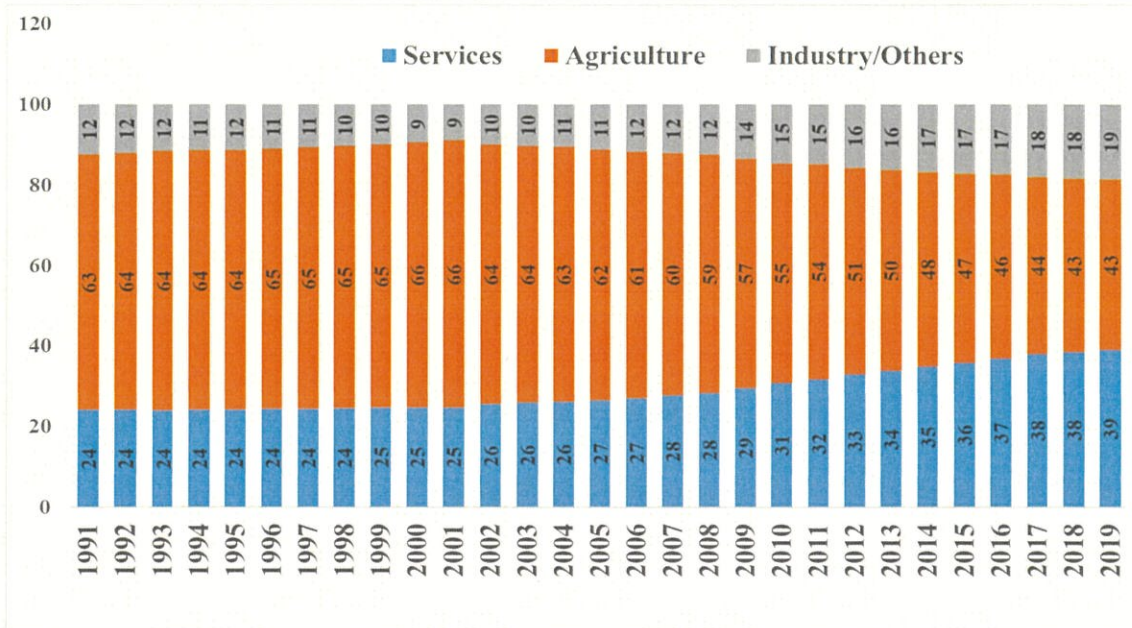
Source: Prepared by JICA Project Team Based on NSIA Population Estimation for year 2022-2023

Figure 2-5-1 Population Distribution in Afghanistan



Source: Prepared by JICA Project Team Based on NSIA Data for Year 2021

Figure 2-5-2 Afghanistan GDP Distribution by Industry for the Year 2020



Source: Prepared by JICA Project Team Based on Data from the World Bank Group

Figure 2-5-3 Major Employment Means Percentage of Afghanistan from 1991 to 2019

2-5-2 Logistics Border Crossing Points

Logistics Border Crossing Points (BCPs) with the neighboring countries are the key for the country trade in landlocked Afghanistan. This report will only focus on the main border crossing points used for logistics and trade purpose shown in Figure 2-5-4. Logistics BCPs have been divided into the following sub-groups by the country which the border is shared with:

- **Afghanistan–Iran border crossings:** Islam Qala and Zaranj(Nimroz) are the two main logistic borders crossing points between Afghanistan and the Islamic Republic of Iran. Both of the highways are situated on Asian Highway Network, a key network for trade development in the region. Maximum permissible weight for 2 axles rigid, 3 axles rigid, 3 axles articulated, 4 axles and onward is 16 tons, 24 tons, 24 tones and 36 tons respectively. The length of the vehicle should not exceed 12m for rigid and 16m for articulated ones. The width of the vehicles should be below 2.5mand the height should not exceed more than 4m for any type of vehicle.
- **Afghanistan–Pakistan border crossings:** Pakistan has 8 formal border crossings with Afghanistan on the Durand line, of which Torkham and Spin Boldak have international status and are located on the Asian highway network. The other 6, Arandu, Gursal, Nawa Pass, Kharlachi, Ghulam Khan and Angoor Adda are bilateral. Maximum permissible weight, length of vehicle, width of vehicle and height of vehicle is the same as mentioned for Afghanistan-Iran border crossings.

It has been noticed that several times Pakistan closes their borders in Torkham, Spin Boldak and other crossings for different reasons like political tensions or tensions between border police where the traders have been through difficulties. According to Afghan traders, border closer has a very severe impact on imports and exports, especially on fresh goods such as vegetables, fruits, seasonal commodities, etc. As per the traders, Pakistan always close their borders when Afghanistan fruits and vegetables are ready for export. They further added that after the de facto authority take over, coal and other mineral trucks from Afghanistan are not stopped but vegetables and fresh fruits trucks are stopped by Pakistani side at the border.

- **Afghanistan–Tajikistan border crossings** Sher Khan Bandar and :Ishkashim are the main logistic border crossing point between Afghanistan and Tajikistan. Sher Khan Bandar is located on the Asian Highway network and is one of the major transporting, shipping and receiving locations in Afghanistan. The city of Kunduz is about 60 kilometers of driving distance south from Sher Khan Bandar. Sher Khan has begun to grow after the completion of the Tajik–Afghan Bridge at Panji

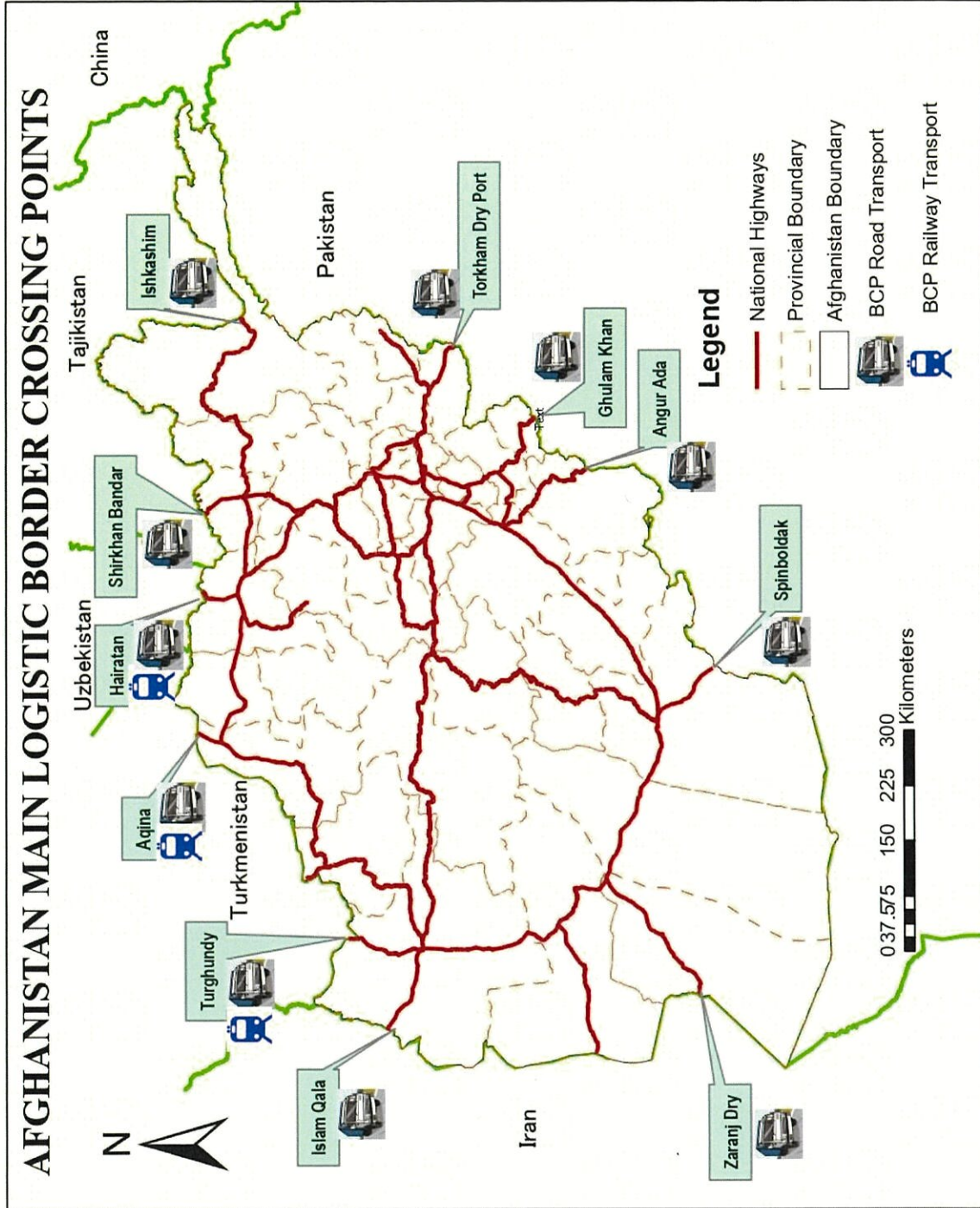


Figure 2-5-4: Afghanistan Main Logistics Border Crossing Points

Poyon in 2007. Maximum permissible weight, length of vehicle, width of vehicle and height of vehicle is the same as mentioned for Afghanistan-Iran border crossings.

- Afghanistan–Turkmenistan border crossings: Aqina dry port and Torghundi are the two main logistic border crossing points between Afghanistan and the Islamic Republic of Turkmenistan. Aqina has a train station by the same name, which serves as the rail service between Afghanistan and neighboring Turkmenistan. Aqina is located in the northern part of Khani Chahar Bagh District, directly adjacent to the border with Turkmenistan. Torghundi Border is located on Asian highway network. Maximum permissible weight, length of vehicle, width of vehicle and height of vehicle is the same as mentioned for Afghanistan-Iran border crossings. Aqina custom and Torghundi custom have both road and active railway transport system. As per the reports from ARA, 180,949 metric tons and 323,885 metric tons goods were transported through railways to Aqina custom and Torghundi custom respectively from April 2022 to September 2022.
- Afghanistan–Uzbekistan border crossings: Hairatan dry port is one of the major transporting, shipping and receiving locations in Afghanistan and it is also an official border crossing between Afghanistan and Uzbekistan. Hairatan BCP is used by both road and railway transport. The most important railway in Afghanistan is the line to the border town of Hairatan from Termez in Uzbekistan. The 1520 mm gauge line crosses the River Amu Darya on the road and rail Friendship Bridge, which is one of the most significant freight routes into the country. Both road and railway are using Friendship Bridge as shown in Figure 2-5-5. Trains bring goods to Afghanistan including oil and fuel, wheat and flour, fertilizer, construction materials, agricultural and highway equipment and consumer goods. As per the reports from ARA, 1,371,767 metric tons goods were transported through railways from April 2022 to September 2022. Maximum permissible weight, length of vehicle, width of vehicle and height of vehicle is the same as mentioned for Afghanistan-Iran border crossings.



Figure 2-5-5 Friendship Bridge Connecting Afghanistan and Uzbekistan

2-5-3 Custom Procedures and Border Crossings

“When logistic vehicles cross the international

border, first it enters the commissary. The commissary check and record the vehicles. After the commissary, then the vehicle is headed towards the custom office. When the vehicle reaches the custom office, first the SMR (Sabte Semmeer, a Dari language word) of the vehicle is registered in a computerized system. In SMR, type of vehicle, driver, type of goods and other primary information are recorded. Then the container/ is weighted and recorded. Then the vehicle goes to help desk where it is categorized based on the logistics materials. For example, if goods are vegetables or fruits, it has the top priority and should not take longer time for customs. Or if the goods are fuel or similar materials, it should be also processed earlier.

Based on the categorized materials, the vehicles are headed to different categories of warehouse where the material are detailed checked that exactly what kind of materials and how much materials are in the vehicle. Check-department inspect the type and quantity of the materials in warehouses and prepare the detailed list of the goods. Then the detailed lists are cross-checked by the control department. After that, the import/export manager signs and approves the lists. Finally, the directorate office gives the final approval. After the approval, the documents are registered in the archive. Then the vehicle with the approved documents goes to the exit gate of the customs, after the confirmation, the vehicle finally exit the custom office. Custom offices have patrol systems away from the custom office to make sure all the vehicles have been checked and no vehicle has gone without custom procedures.”

On the other hand, one of the major challenge to the Afghanistan land transport is the complicated border procedure and poor border crossing. To grasp the challenges in Border crossings, the Afghanistan Chamber of Commerce and Investment (ACCI)'s staff, Truck drivers, and logistic transport companies were interviewed based on personal links. The main points and challenges mentioned by them are summarized below:

- Long processing time at BCPs (Border Crossing Points): Afghanistan's transport and logistics sector has been negatively impacted by complicated and long procedures, weak standards, regulations, slow processes, and a lack of cold storage and warehouses, and insurance. The border crossing usually takes a long time, especially on the border across the Durand line. Most of the times, Pakistani side closes the border for vegetables and fruits produced in Afghanistan.

The following complicated procedure at Pakistan side of the Torkham crossing was explained by ACCI officials which is the main problem to the trader is according to them:

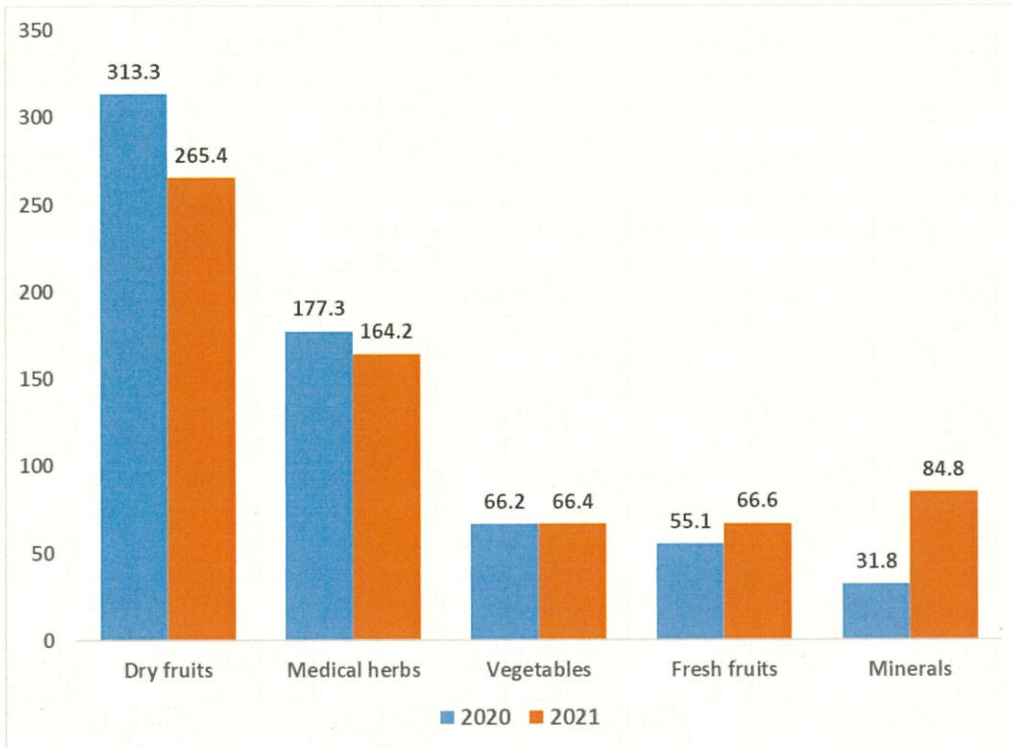
1. Passport, visa, and truck documents check at immigration.
 2. Record weight as total weight and cargo weight.
 3. Required forms and invoice registration and other administrative procedures.
 4. Physical check of the goods whether they match the documents or not.
 5. Transit documents are controlled and the documents are signed and stamped.
 6. Final Approval of the documents
 7. Goods are allowed to cross the Durand line and enter Afghanistan.
- Complicated and time-consuming procedure at customs: Another major challenge is the complicated, time-consuming procedure. Corruption in customs is still an issue after the de facto authority takeover.
 - Trouble created by Pakistani side in Karachi port: Afghanistan traders' goods process is delayed in Pakistani ports under one or other pretext. The system for clearance of documentation at the customs at the ports is very time-consuming and tiresome. This time-consuming procedure causes demurrage charges to the goods as well.
 - Entering Kabul or Crossing Kabul is time-consuming for logistics: When transporting goods between the east side to other parts of Afghanistan, or vice versa, the goods should cross congested Kabul city due to the unavailability of the Kabul city ring road which was planned to be completed long time ago. This is one of the major issues for traders. Goods that arrive at the Kabul city entrance gate, are unnecessarily awaited overnight. Due to security problems, sometimes it takes days that the goods are allowed to cross the Capital city.
 - Two Lanes Logistic Roads: Most of the logistics roads are two lanes and get easily blocked due to

traffic behavior, poor law enforcement, and natural disaster, especially in hill areas.

- Lack of space to repair damaged vehicles, especially in hill areas: Lack of repair facilities is another problem. Truck drivers need a long time to wait until a mechanic arrives to check the problem of the damaged vehicles. Sometimes the trucks need to be unloaded for repair. If cars damage at hilly area, one lane is blocked to the traffic which causes traffic jams.

2-5-4 Afghanistan Trade Statistics:

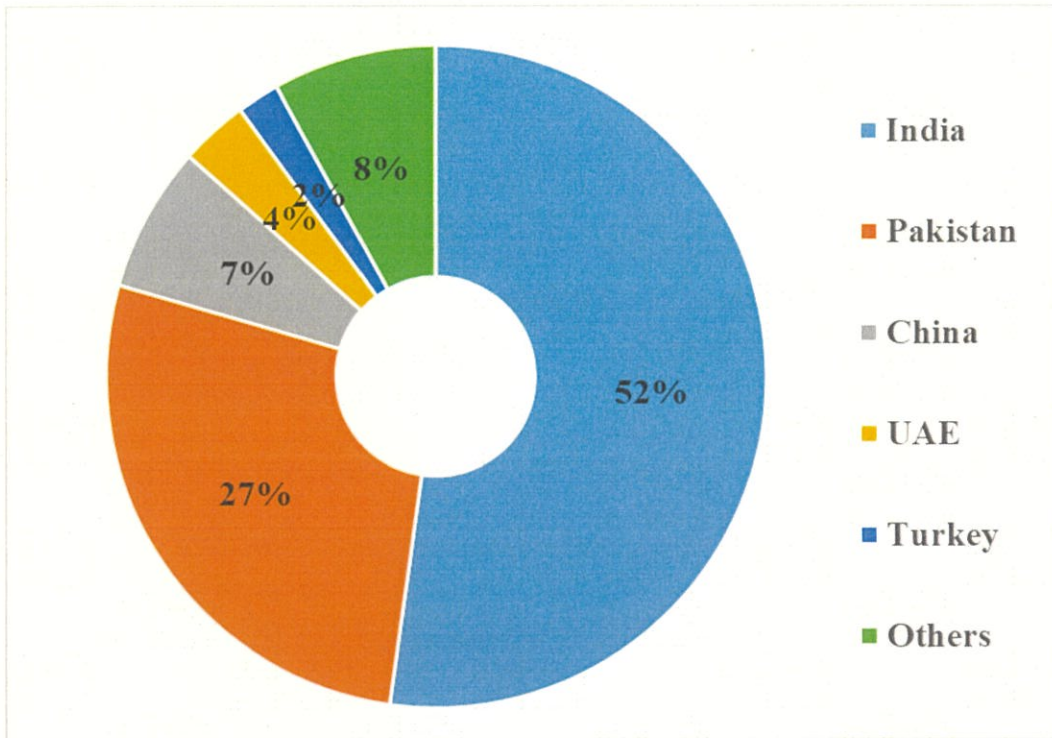
The country’s narrow economic base is reflected in the value and composition of Afghanistan’s exports (Figure 2-5-6). Export commodities are exclusively related to agricultural production and associated industries, which are sensitive to climate conditions and market volatility.



Source: Prepared by JICA Project team based on NSIA data for year 2020 and 2021

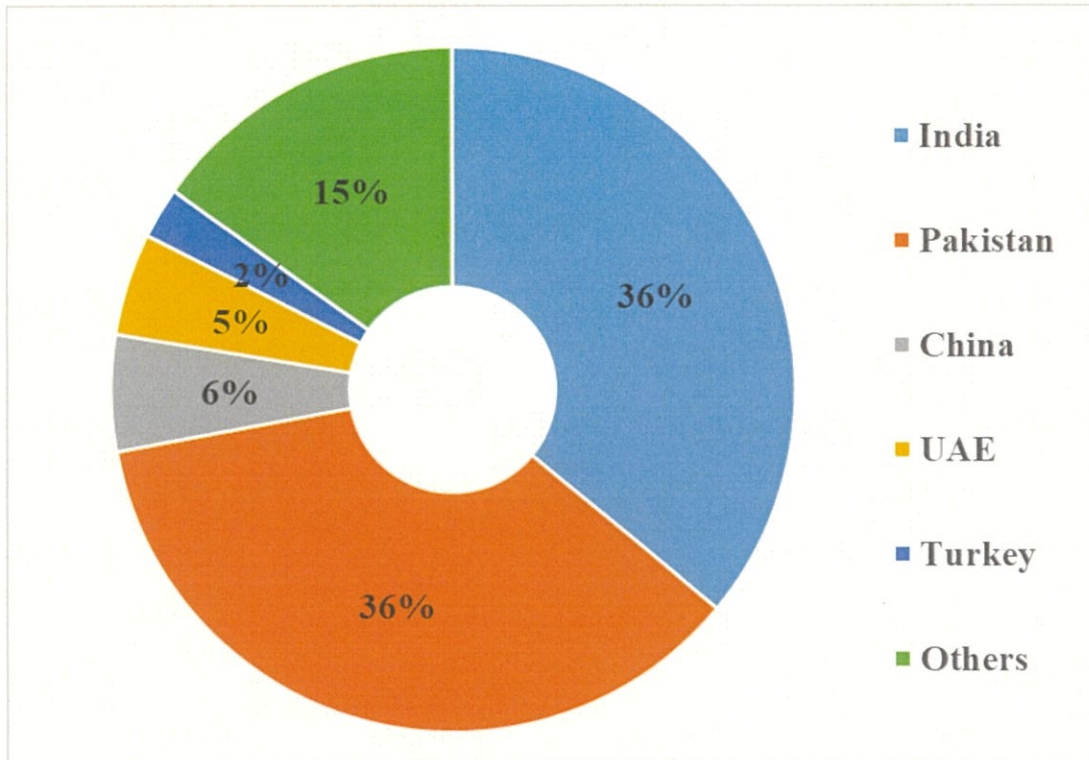
Figure 2-5-6 Exports by Main Commodity (\$ million) in 2020 and 2021

Exports of dry fruits, the key foreign exchange earner, are a case in point whereas, in 2020 Afghanistan exported dry fruits valued at \$313.3 million and in 2021 Afghanistan exported dry fruits valued \$265 million. The mineral exports were more than two times in 2021 compared to 2020.



Source: Prepared by JICA Survey Team Based on NSIA Data for Year 2020

Figure 2-5-7 Afghanistan Export Percentage by Country 2020

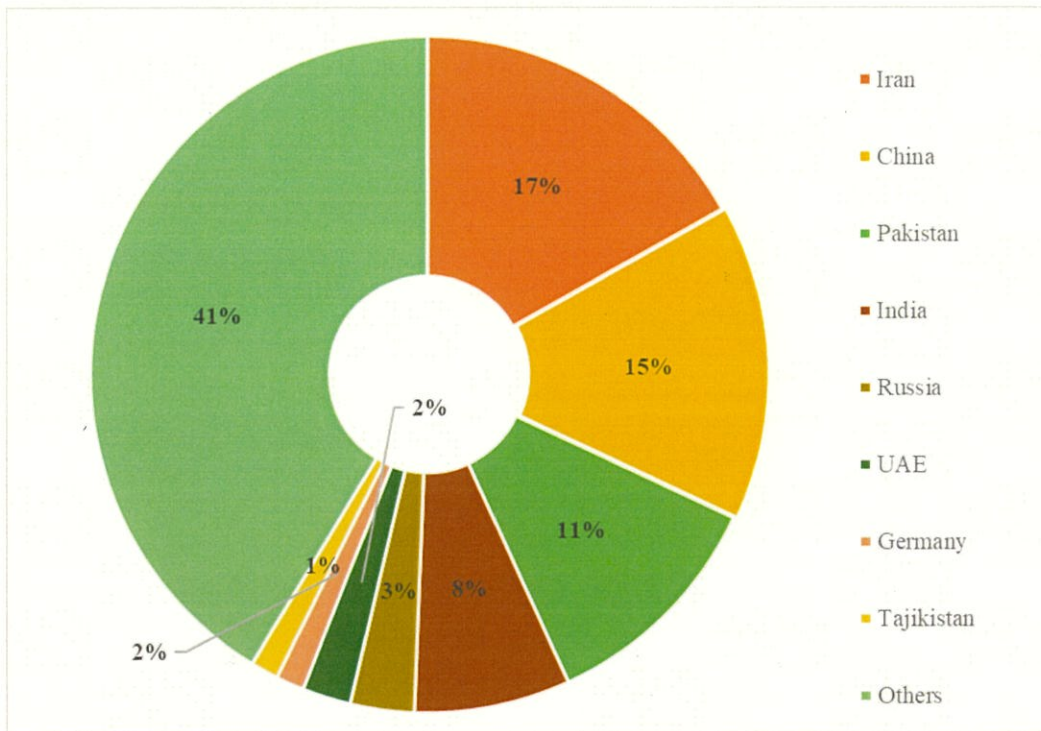


Source: Prepared by JICA Survey Team Based on NSIA Data for Year 2021

Figure 2-5-8 Afghanistan Export Percentage by Country 2021

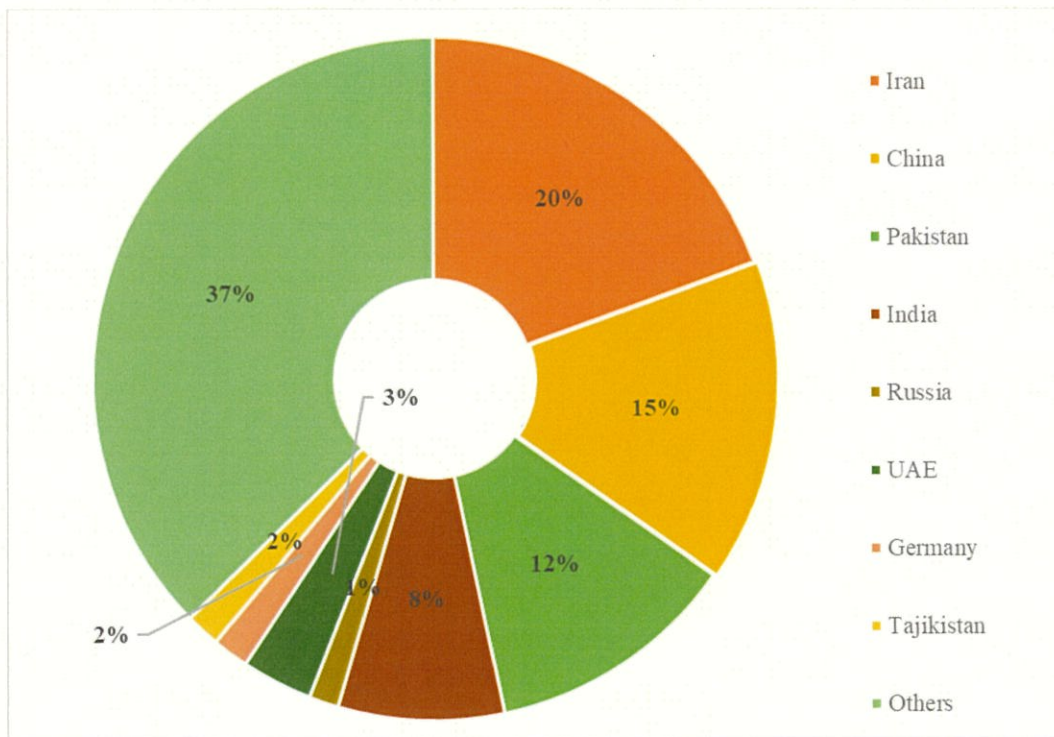
Figure 2-5-7 and 2-5-8 show Afghanistan exports indicating that the exports have been considerably increased to Pakistan while they have been decreased for India. Imports have been decreased to 5.3 billion in 2021 compared to 6.5 billion in 2020. Percentage of imports from each country is shown in

Figure 2-5-9 and 2-5-10.



Source: Prepared by JICA Project Team Based on NSIA Data for Year 2020

Figure 2-5-9 Afghanistan Import Percentage by Country 2020



Source: Prepared by JICA Survey Team Based on NSIA data for Year 2021

Figure 2-5-10 Afghanistan Import Percentage by Country 2021

To summarize, the officially recorded exports of goods were around US\$ 850.1 million in 2021, and US\$ 776.7 million in 2020. To compare, export has been increased by 9.4 percent in 2021 over 2020. On the other hand, the officially recorded import of goods in 2021 was US\$ 5307.8 million. The

registered imports in 2021 compared to 2020 decreased by 18.8 percent (from US\$ 6537.6 to US\$ 5307.8 million).

The bulk of the country's foreign trade passes mainly through border crossing points (BCPs) at Mazar-e-Sharif Custom, Jalalabad Custom, Eslam Qala Custom and Kandahar Custom. Table 2-5-1 shows trade circulation in each custom point.

Table 2-5-1 Value of Imports and Exports by Customs in 2021 (\$ million)

No	Province	Customs	Imports	Exports	Trade Circulation	
					Value	Percentage
1	Balkh	Mazar custom (Hairatan)	787.7	33.1	820.7	13.3
2		Balkh airport custom	0.0	0.0	0.0	0.0
3	Takhar	Ai-Khanoum custom	0.9	0.8	1.8	0.0
4	Paktika	Paktika custom	57.8	12.5	70.3	1.1
5	Kunar	Kunar custom	0.4	0.0	0.4	0.0
6	Paktia	Paktia custom	66.6	41.9	108.5	1.8
7	Khost	Khost custom	124.4	51.4	175.7	2.9
8	Faryab	Aqina custom	227.0	9.7	236.7	3.8
9	Farah	Bagh pul custom	305.9	1.2	307.1	5.0
10	Kabul	Kabul custom	42.4	168.7	211.1	3.4
11		Kabul Airport custom	111.8	169.3	281.1	4.6
12	Kunduz	Kunduz custom	31.5	9.7	41.2	0.7
13	Kandahar	Spin Boldak custom	100.8	0.2	101.0	1.6
14		Kandahar custom	718.2	86.5	804.7	13.1
15		Kandahar airport custom	1.0	0.0	1.0	0.0
16	Nangarhar	Torkham custom	54.1	0.0	54.1	0.9
17		Jalalabad custom	898.7	160.7	1,059.3	17.2
18	Nimroz	Nimroz custom	500.1	3.0	503.1	8.2
19	Herat	Eslam Qala custom	325.6	0.0	325.6	5.3
20		Torghundi custom	84.7	0.0	84.7	1.4
21		Rozenk custom	0.0	0.0		
22		Herat custom	614.3	101.5	715.8	11.6
23	Badakhshan	Eshkashem custom	0.1	0.0	0.0	0.0
Total			5,307.8	850.1	6,157.9	100.0
Note: Electricity import \$ 253.5 million and Post Parcel import \$ 2.3 million are included in total imports.						

Source: Afghanistan Trade Statistics Year Book 2021

Afghanistan's rich endowment in known yet untapped natural resources is expected to provide a major impetus to economic development. The country possesses significant mineral deposits, including copper, iron ore, silver, and gold, among others.

In addition, Afghanistan has a semiprecious stone industry, and there are active marble quarries at various locations, including Balkh, Helmand, Herat, Kabul, and Kandahar. Coal, which once was mined

in Afghanistan at 180,000 tons per year, could again become significant for energy production. Since August 2021, de facto authority took over the Afghanistan, coal export to Afghanistan is increasing. Pakistani media reported, citing the country's officials that Pakistan is importing around 3,000 metric tons of coal from Afghanistan each day and this is expected to jump to 20,000 tons after the beginning of a coal operation from Kundian in Mianwali district and Sibi in Balochistan. In addition to the country's untapped oil and gas reserves along the borders with Uzbekistan and Tajikistan. As the case of the Mes Aynak (copper mine) shows harnessing the natural resources and the development of associated industries will have to go hand in hand with the provision of physical infrastructure and trade logistics to enable access to markets. First, however, the security situation has to improve, to attract investors and allow them undisturbed mining operations.

2-6 Conclusion

Afghanistan's transport sector has been largely affected by the unstable political and security situation in the country. Creation of suitable condition for transport sustainability always remained a challenge in past 20 years of development era of Afghanistan. Billions of dollars were spent in the development of transport sector in past years but very limited resources were spent in the maintenance of the developed infrastructures. Unless the proper attention is given to the maintenance of the developed infrastructures, the constructed roads will rapidly and steadily destroyed. Relevant transport authorities should urgently consider the following issues to prevent rapid damage of the existing corridors and develop trade opportunities:

- Operation and Maintenance of the transport infrastructures
- It is advised to conduct an urgent survey to find out vulnerable corridors due to climate change and take necessary counter measures. Required counter measures could be classified as urgent, mid-term and long term.
- Improve border crossing points (BCPs) procedures and processes and be an active member of the CAREC program

Maintaining Afghanistan's roads will require huge amount of financial resources and a proper asset management system and institutional capacity. Since August 2021, international community has stopped their support in infrastructure development and most of the afghan experts including in transport sector left the country. So it is strongly recommended to the de facto authority to negotiate and bring the international community support back the country, develop institutional capacity with the help of donor agencies.

Afghanistan's transport sector is vulnerable to climate change impacts. Afghanistan land transport has already been, and will continue to be, heavily affected by the negative impacts of climate change. Heaving flooding has caused mountain sliding (road blockage) and washing of roads. A comprehensive study should be conducted and countermeasure should be taken to decrease the effects of climate change.

One of the major issue in Afghanistan trade logistics is the poor physical infrastructures, lack of technology, procedures and corruption in border crossing points in Afghanistan. The government should make sure to remove/reduce these problem for more smooth transit trade. On the other hand, due to the strategic location of Afghanistan, four of the six multimodal corridors proposed by the CAREC Transport and Trade Facilitation Strategy 2020 passes through Afghanistan. So, Afghanistan should continue to be an active member of the CAREC program to be able to receive support and funding from that program.

CHAPTER 3 COLLECTION OF INFORMATION ON RECENT POLITICAL CHANGES AFFECTING THE TRANSPORT SECTOR

3-1 De Facto Authority Policies and Support Status of International Donors

After the fall of Kabul, August 2021, the de facto authority of the Taliban was isolated and left alone. Almost all countries including the United States and western countries, shut down their diplomatic offices in Afghanistan. They have refused to recognize and establish diplomatic ties with the Taliban de facto authority. In addition, the UN General Assembly has indefinitely postponed a vote on who can represent Afghanistan at the United Nations. Some major challenges since August 2021, are outlined as follows:

- International society has suspended all financial support to the de facto authority, except humanitarian support to the people of Afghanistan.
- The national budget in 2021 (US\$ 5.65 billion) with 50 percent contribution by international partners has been cut to US\$ 2.6 billion with more than 50 percent decrease.
- Immediate GDP has decreased by 40 percent.
- More than a million jobs have been lost.
- Poverty risks become nearly universal, affecting 95-97 percent of the population by mid-2022.
- Afghanistan is descending into the worst humanitarian crisis in the world as of 2022.
- Central bank reserves were blocked which caused a great economic instability and disruption to markets and trade.
- Women are prohibited from education and work.
- Major disruption to basic services (Including basic health and education)
- Migration of well qualified professionals in all sectors including professors and government top authorities which have caused a lack of expertise in the country.

3-1-1 De Facto Authority Policies and Vision

Development of comprehensive national policies, master plans and sector strategies particularly in the transportation sector, were among the major achievements of Afghan government in the last 20 year, which showed a clear roadmap toward development of standard transport sector in the country. However, it is not clear whether the de facto authority validate the existing official documents or they develop new policies. A general order has been announced by the leader of Taliban so called “Amir al Momineen”, which stated that enacted policies, laws and regulations in all sectors have to be reviewed and revised based on the Islamic thoughts (Taliban thoughts). Although, the revision of policies and laws have been started in some sectors, the process is very slow and so far, it seems that all the laws from the Ghani government are kept effective.

The MOT drafted a new transportation strategic plan to regulate the transportation system in line with Taliban vision, and the particular attention is given on goods transportation to and from overseas, tax charges and financial management to increase the government revenue. The strategic plan was confirmed by the economic commission and approved by the Prime Minister of Taliban. Based on new plan, MOT has been trying to regularize both national and urban transportation system. The document is yet to be publicized, but as per the report by the national media, a fleet like management system will be developed where all public vehicles will be registered, number of cars and passengers on each route will be determined. The cars will only be allowed to commute on the specified routes and to pick up or drop off passengers at designated stations. Till date, no practical action is taken except regulation of side road parking where the cars are only allowed to park in the designated area and charged for it.

The de facto authority has also taken some initiatives to extend railways with the neighbor countries; several meetings and talks have been carried out so far and some achievements are obtained.

3-2 Comprehension of Changes in Counterpart (C/P) Information and Transports Needs

3-2-1 Ministry of Transport (MOT)

Ministry of Transport became part of Afghanistan administration as a ministry in 1978. Since the ministry is come to into being, it has been incorporated under other government organizations several times but currently it's working as a ministry. The scope of the ministry includes inspection and issuing of commercial transit permits and collects fees from all domestic and international commercial vehicles. The ministry works for both goods and passengers transport in land transport and aviation sector and is responsible for the preparation of policies and strategies in this regards. The following strategic goals were set for the ministry in the "Strategic Plan of the Ministry of Transport 2019":

- Preparation of Strategic Plan for Transport Infrastructure Development
- Development of Organization and Coordination
- Strengthening Public Transportation, Safety and Transportation Services
- Public Private Partnership Development in Transport Sector
- Strengthening International Coordination
- Development of Transparency and Accountability

Ministry of Transport was one of the less active ministries of the Afghan government since 2002 to 2020. The de facto authority has not changed the basic strategy of the MOT yet, but as per the latest unofficial information, they are working to revise it. JICA project team was unable to have a hand to the draft strategy, but only the contents of some changes could be confirmed. As per the information, MOT wants to prepare more practical next five years strategy and plan. They plan to add strategy for aviation which was not included in previous version of the strategy prepared in 2019. Additionally, they want to remove security risks from their new planned strategy.

The organization structure shown in Figure 3-2-1 of the MOT has been revised by de facto authority. Afghanistan Civil Aviation Authority (ACAA) which was an independent budgetary unit in Mr. Ghani government, has been combined with MOT. The new organization structure includes of deputies such as Deputy of Finance and Administration, Deputy of Road Transport, Deputy of Aviation and Deputy of Policy, Safety and Aviation Control. Based on interview with several technical staff in the ministry, de facto authority has not fired any technical staff so far. However, the organization and institutional capacity is very low despite hiring several new Japan graduated engineers.

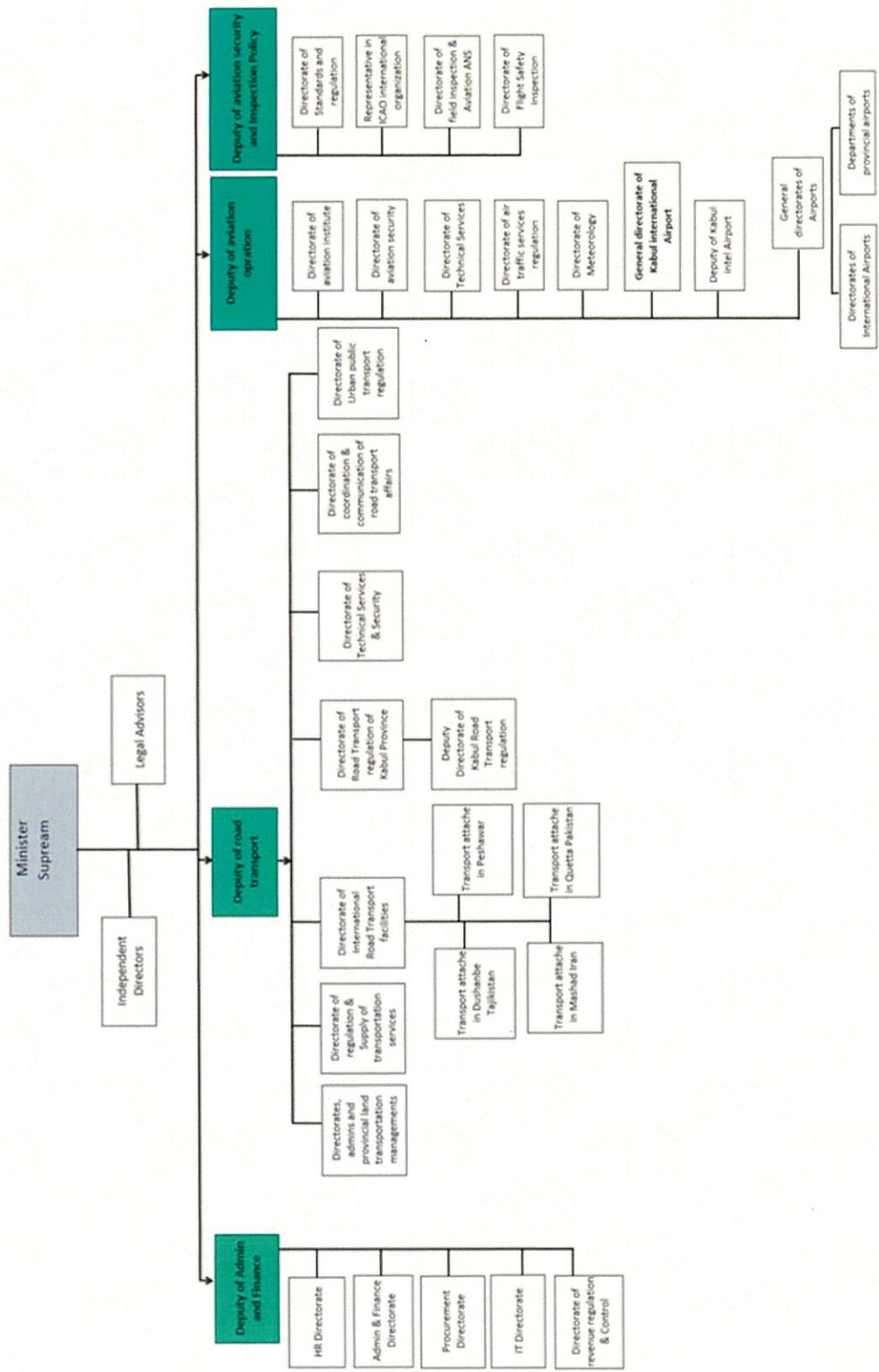
3-2-2 Ministry of Public Works (MOPW)

The Ministry of Public Works, which is functional since 1933 is one of the most important ministries in the structure of the government of Afghanistan. Planning, designing, construction and maintenance of national highways, regional highways, provincial roads, district roads and their related infrastructures are the scope of the ministry. Vision of the ministry includes creating and maintaining the transportation infrastructure that effectively pursues the economic development, health, education and welfare of the people of Afghanistan.

MOPW prepared the transport sector strategy prepared for the years 2019 to 2023. Improving connectivity, decreasing congestion, minimizing deterioration of national highways, improving road safety, road sector financing, and insufficient institutional capacity of the MOPW were pointed out as the main challenges of the national highways. MOPW had planned to improve the institutional capacity of the Ministry, enhance road sector financial sustainability, improve road network access and coverage and improve road safety by implementing specific interventions in each section.

Some of the planned/carried out interventions mentioned in the strategy are listed below:

- Build General and Specialized Skills at MOPW
- Develop policy recommendations for road fees and taxes
- Completion of Ring Road



Source: MOT Website

Figure 3-2-1 MOT Organization Chart under The de facto authority

- North-South Corridor-Kandahar to Mazar-e-Sharif
- Provincial Road Rehabilitation Program
- Emergency Maintenance Program
- Develop & Implement Annual Road Safety Mitigating Measures Program

Since JICA survey team could not contact current Afghan government directly, some technical staff still working in the ministry were contacted. As per the information from the technical staff, there is no change in the policy of de facto authority and they are willing to implement the same policy and strategy. However, as the MOPW works were mostly based on international donors support, and currently international support is in halt, most of the development works are stopped.

The organization structure of the ministry is mainly unchanged compared with Mr. Ghani's government. However, Project Management Office (PMO), National Rural Access Program (NRAP) and Capacity Development Project which were supported by the donors' agencies has been dismissed from the organization structure. On the other hand, some of the talented and experienced staff working in the ministry have left the country after August 2021.

3-2-3 Kabul Municipality (KM)

Kabul Municipality organization structure, terms of reference, development, policy and vision during the last 20 years, are explained in details in Chapter-I, section 1-2-3. Here, major changes in the policy, organization structure and positions since August 2021 are discussed.

3-2-3-1 Status of Urban Public Transportation and Policy Changes

To bring better coordination and management in the urban transportation, the Ghani government brought major changes in the policy and responsibility of KM. Along with the improvement of transportation infrastructures, KM was assigned to be in charge of urban transport policies, arranging, planning, usage, and operation of public transport facilities which was originally MOT task. Moreover, traffic police operation and management became part of KM's terms of reference. This policy has been withdrawn and the new administration under de facto authority, simply prefers the conventional KM's policy and organization structure back as 2002. Now the Kabul Municipality vision is to focus only on conventional strategy which is construction and maintenance of transportation infrastructures. In addition, Taliban dismissed the Traffic Management Board, the authority and responsibility of Traffic police was returned back to MOI while MOT has given the responsibility to look after public transportation policy including planning and operation in Kabul city.

With respect to the master plan, KUDF has still been used as an official master plan, however, KM has recently drafted a Transit Master Plan based on previous master plan (2012), which was revised under JICA project. According to KM official, transit plan in KUDF is not realistic when compared with actual ground condition which has made it inapplicable. Several cases of road extension or new routes development in the city have proven that the alignments shown in the master plan (KUDF) are different compared with actual ground conditions. Such problems have been created a headache to KM leadership and technical team, and has caused significant delay in the developmental activities of KM. The newly drafted transit master plan has been sent to Taliban cabinet for approval.

Overall, the de facto authority has not taken any practical steps toward increasing or enhancing urban public transport in the capital, yet the situation has got worse. The private bus services and online taxi services were already stopped even before A, and nothing has been changed since the government takeover by Taliban. As of now, the common mode of public transportation remains upon informal/illegal private and irregular mini-busses, vans, small private cars and to some extent official taxis.

Milli Bus operation has further been reduced to a minimum level to 100 functional buses only in four routes in Kabul city, perhaps only in the central area of the city though the information about the exact routes are not reported. Although, total number of buses are 1096, most of them are inactive or have severe technical problems, 350 of them can be repaired.

Recently, the de facto authority has imposed some regulations to manage city crowd and increase KM's revenue and taxes. KM has allocated some specified places for car parking around the city, specified spaces for street vendors, imposed parking charges, taxes on street vendors, and increase the amount of tax on shops and business centers in the city. In addition, movement of overloading truck are stricken, and subjected to fine. According to the media, by imposing this new regulation, Taliban have been successful to some extent.

As of now, common challenges and problems of urban public transport are as follows:

- Kabul city over population itself is a major problem that has caused the city not to have the capacity and facilities including public transport to serve the people.
- Suspension of international communities' technical and financial supports, caused a remarkable delay or even stopped developmental activities both in public transportation and road sector improvement.
- Lack of coordination among relevant organization: Although Traffic Management board was created in the Ghani government to bring sector-wide coordination and to some extent it was helpful to create coordination, this board has been dissolved and caused again fragmentation and less coordination among the relevant organizations.
- Take-over of the technical top management position in transport related organizations by Taliban members, have brought a serious challenges in terms of technical management and operation.
- Lack of equipped workshop, professional mechanical engineers and spare parts: Buses improper handling and lack of maintenance have been the major problem for public transportation. This has been the reason that out of 1,380 donated buses only few of them are being functional, and operates in the city.
- Considering BRT implementation as stipulated in KUDF, transportations infrastructure particularly roads are small in numbers and width and are inappropriate due to existing of several bottle necks in the central area. Lack of bus terminals and stations are another major problem caused traffic jam in the city.
- Lack of proper system such as GPS to monitor and properly manage public transportation.
- Lack of awareness and traffic law enforcement.
- Inability of government sectors to manage and monitor unofficial public transport in the city.

3-2-3-2 Changes in Kabul Municipality Organization

Since August 2021, major changes also occurred in the organizational structure particularly in relation with the transportation sector.

Summary of major policy and organization changes compared to the Ghani government, in the field of urban transport and traffic management, are shown in Table 3-2-1.

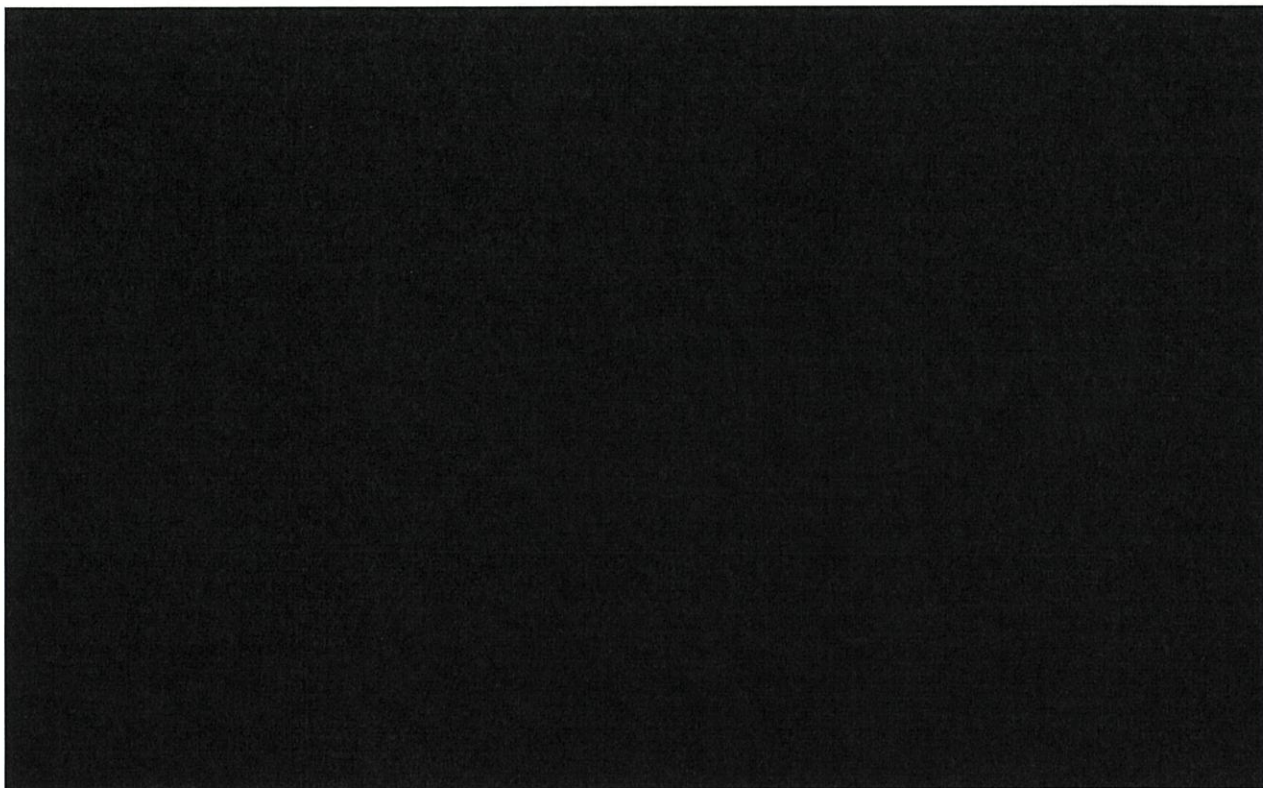
Table 3-2-1 Summary of KM Policy Changes Under de facto authority Compared to Previous Republic Government

No.	Previous Republic Government	De facto authority
1	KUDF was used as the master plan for the city development including transportation and traffic management.	KUDF is still the valid master plan for the city development. However, KM has drafted Transit Master Plan based on previous master plan (2012) revised under JICA project. The new drafted transit master plan is yet to be approved.
2	Urban Development, Transportation including planning, design, operation, Traffic Management and road improvements were given high priority.	Road construction & maintenance is given the high priority. Note: Due to budget limitation, only road maintenance activities are being carried out.

3	Position of Transportation Deputy Mayor was established Directorates of Public Transportation and Traffic Management were established under the Transportation Deputy Mayor to manage and monitor urban public transportation & traffic management.	The Position of Transportation Deputy Mayor is merged with Technical and Construction Deputy Mayor. Public Transportation and Traffic Management merged into one Directorate, functioning under the Technical Deputy Mayor for Construction. Its responsibility is only to analyze intersection conditions, design signals, road marking etc.
4	Kabul City Traffic Management Board was established as sector-wide coordination body, under the leadership of Kabul Mayor to coordinate and manage the urban transport development, planning, operation and traffic management.	Kabul City Traffic Management Board has been dissolved; road and infrastructure development became the task of KM while public transportation operation, and traffic management responsibilities were transferred back to MOT and Traffic Police Directorate, respectively.
5	BRT as main mode of public transportation was given the top priority, while Planning and Design for some routes were completed, and procurement for construction and purchasing buses were under process.	There is no interest or intentions to progress with the Ghani government policy and commitment on BRT establishment perhaps due to budget issue or lack to technical capability at top management level.
6	KM planned to redesign 32 roundabouts to a digitally signalized and equipped intersections. Designs had already been completed, physical improvement for about 2-3 intersections were completed.	Roundabouts improvement have been stopped and is no longer the top priority of KM.
7	As part of the policy, recognition and improvement of bottleneck along with the intersection were given the top priority.	Current KM under Taliban doesn't follow the same policy.
8	More than 9 projects related to traffic management and public transportation were included in the annual construction plan 2021.	There is no single new project on traffic management or public transportation considered in the annual construction plan for 2022.
9	Budget Resources: 1. International donor (Off-budget) 2. Development Budget (MoF) 3. KM own revenue	Budget Resources: KM own revenue

In the new organization structure, Deputy Mayor Positions were reduced from six to five by merging two deputy Mayors; Technical & Construction Deputy, and Transportation Deputy Mayor under the name of Technical and Construction Deputy Mayor (Figure 3-2-2). Traffic Coordination, and Public Transportation which were independent directorates, have been merged under one general directorate "Directorate of Cohesion of Traffic and Public Urban Transport".

Furthermore, the key members of KM top management including transportation sector either left the country or were removed. Transportation Deputy Mayor, Traffic Management, Public Transportation, and Infrastructure Planning directors all left the country and migrated to overseas. Currently some of these positions are removed from organizations, and some are being managed by Taliban members (Table 3-2-2).



3-2-3-3 Current Status of Technical Staff in the Transport and Road Related Directorates

According to data collected regarding number and positions of staff at technical level, no major changes have been occurred compared to the number and positions in the Ghani government. Followings are summary explanation about technical members related to transport or road relevant directorates.

1. Directorate of Cohesion of Traffic and Public Urban Transport:

The total number of core technical staff (transport or civil engineers) in both directorates were 32 and 15 members before August 2021, respectively.

Except 4-5 members who went abroad for pursuing master degree or left the job, the majority of technical staff still remained in their positions. The TOR has been majorly changed. Job responsibilities and main activities of this directorate before August 2021, is shown in Annex-III.

2. Infrastructure Planning Directorate:

The infrastructure directorate of Kabul Municipality consists of 3 departments; Survey (40 member), Planning (9 member) and design department (17 members). The TOR is the same as before, and there is no major change in the number of technical staff as well. It is worth mentioning that the technical knowledge, documents and system which were developed under the support of JICA “Project for Capacity Development for Management of Kabul City Road Improvement” (JICA CD Project) are still being used in routine works. Apart from some few technical members who left the job or country including 3 technical staff who were trained under JICA CD Project, the majority of the staff are remained in their positions. One technical staff is pursuing MSc at Nagoya University under the PEACE Project from September 2022. List of technical staff who were trained under the above mentioned JICA CD Project and its current status are shown in Annex-IV.

3. Program and Project Management Directorate (PPMD):

The total number of technical staff before was 17 member, and it has been confirmed that after the August 2021, 4 technical staff left KM where the total number of the staff decreased to 13 members. Knowledge gained by the JICA CD Project are somehow being used in the routine works, particularly technical specification of road construction is still the valid document for construction and supervision of the infrastructure projects. As for the staff trained under JICA CD Project, only one out four persons remained in KM, the rest left and escaped from the country (Annex-IV).

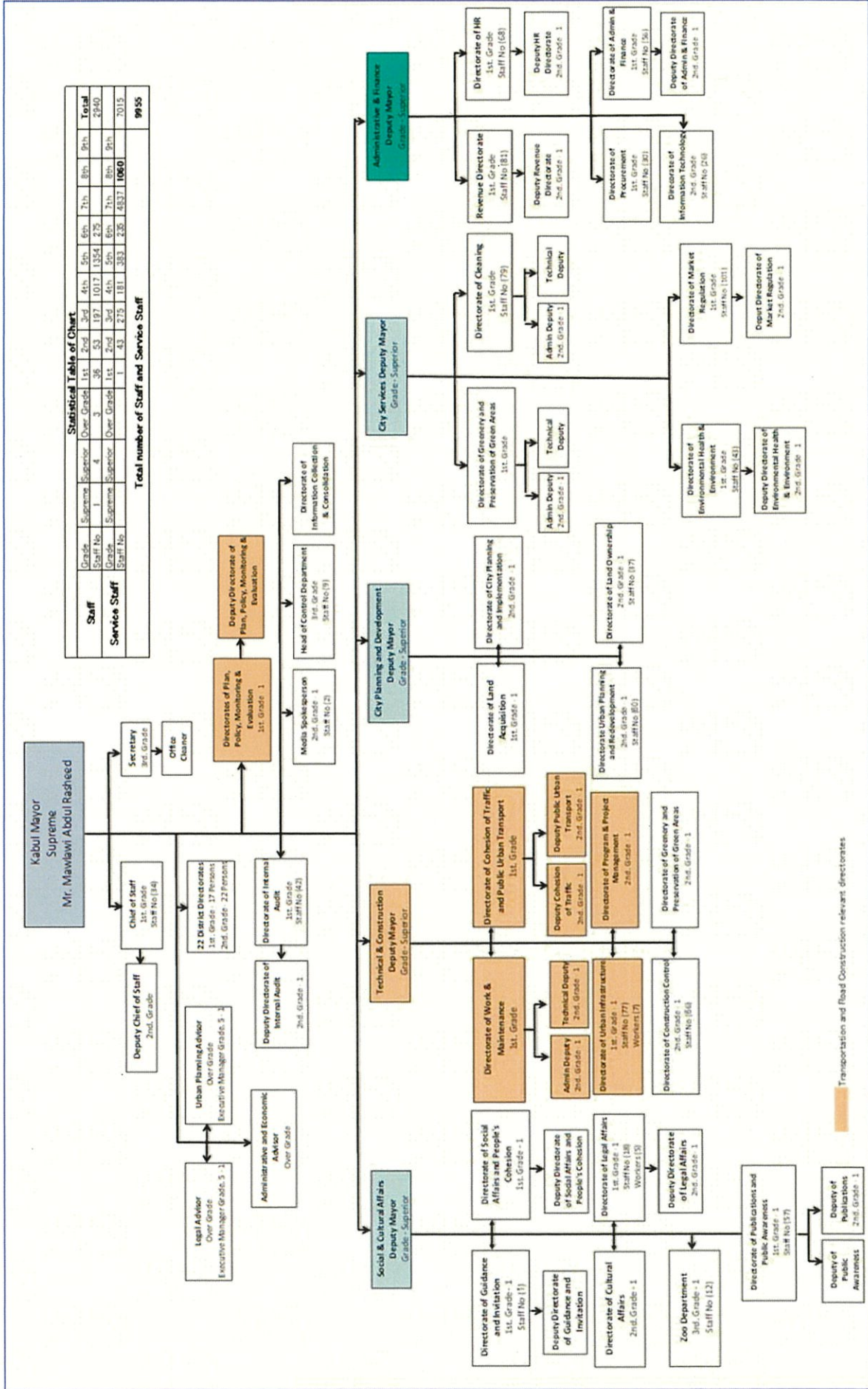


Figure 3-2-2 KM Organization Under the de facto authority

4. Maintenance General Directorate:

The Maintenance General Directorate has two deputy directorates; Admin, and Technical Deputy Directorate. The Technical Deputy Directorate is further divided into two major departments; Road work, and Road Maintenance (Figure 3-2-3).

Under the JICA CD Project, a major development occurred in the organization structure of the maintenance directorate particularly at technical deputy directorate, new department/sections were added with a particular attention to road and bridge maintenance. Two separate departments were established; Asset Management Department, and Bridge, Road and Concrete Structures Repairing Department. Asset Management Department was assigned to prepare a data base for road and bridges, and to conduct routine patrol, while Repairing Department was assigned to conduct detail investigation, cost estimation and actual repair works. The same organization structure has been kept under since August 2021 and most of the technical staff trained under the CD project, are still kept in their positions.

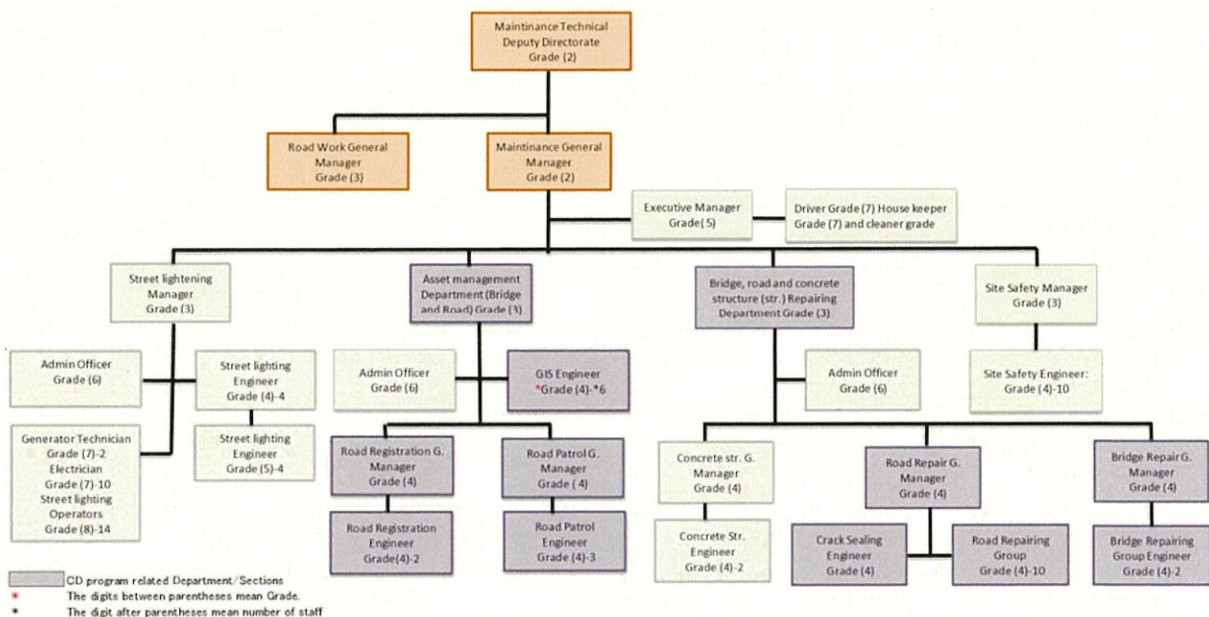


Figure 3-2-3 Maintenance Technical Deputy Directorate Organization Structure

The technical document and system such as developed manual, database and repair methodology developed under the CD Project are still being used as routine works. Recently, two important CD Project master trainers (TOTs), left KM for a better job opportunity.

3-2-4 General Directorate of Traffic Police (GDTP)

The general directorate of traffic police is responsible for the management and controls of the traffic affairs including vehicles and lane management, installation of traffic signs and signals, operation and monitoring of public transports' terminals. Moreover, issuance of the driving license, registration of the vehicles in the city and monitoring of drivers' behaviors are the responsibilities of this directorate. Since its establishment, the GDTP has operated under the Ministry of the Interior (MOI), except from 2017 to August 2021. In November, 2017, President Ghani approved Kabul municipality's (KM) proposal on establishment of Traffic Management Board which allowed GDTP to operate under Kabul Municipality. An official memorandum was signed between MOI and KM with a purpose to transfer the operation and service responsibility of GDTP to KM while the physical structure of the directorate remained under MOI. In addition, the revenue of the Kabul traffic directorate was also shifted to the budget of Kabul municipality. Under the management of Kabul municipality, GDTP took a series of new measures to improve the traffic situation; including digitalizing vehicle registration and issuance of driver's licenses and regulation of street vendors which were among the major issues in the city. Remarkable improvements were seen in overall management of traffic and its operation in the city, though the directorate faced several challenges such as miss-coordination between KM and MOI, personnel salary payment and administrative management issues.

The de facto authority decided to shift GDTP operation back under MOI authority with same organization structure before transfer to KM. In addition, the economic commission led by the Taliban's deputy prime minister decided that the revenue of the GDTP, which previously credited to the Kabul municipality budget, would be returned back to MOI.

3-3 The De Facto Authority Current Efforts and Activities

3-3-1 Road Transport

The de facto authority first action toward reconstruction and rehabilitation of the country was announcement of road construction in a very first days after fall of Kabul. In September 2021, the Taliban officially inaugurated the start of road reconstruction at the Salang Pass with a televised ceremony. Taliban officials took this initiative to appeal their promises toward the country reconstruction and bring progress and prosperity. The Ministry of Public Works (MOPW) announced repairing of a total of 30 kilometers of road of Salang, comprising two stretches of 15 kilometers on each side of the pass. The project was estimated around \$660,000 and would be funded by the "Islamic Emirate of Afghanistan" referring to the Taliban's self-designated name for the country.

Since then, the Taliban have announced several road construction projects. These include the route from Kabul to Maidan Shahr, the capital Wardak province, roads in Logar, Kabul-Kandahar highway, city roads in Gardez, the capital of Paktia, and Kunar provinces. Followings are summary of commencement of some these roads' reconstruction officially announced by MOPW:

1. Reconstruction of Logar-Kharwar Road, 19 km, dated 27 July, 2022.
2. Reconstruction of Kabul-Maidan Shahr Road, 8 Km, dated 11 October, 2021.
3. Reconstruction of Kabul-Kandahar highway from Wardak Province to Ghazni Province, 80 km with the budget amount of US\$ 4.4 million, dated 22 September, 2022.
4. Reconstruction of Kabul-Kandahar highway from Ghazni to Moqor, 110 km along with 56 small bridges and culverts, dated 12 October, 2022.
5. Repairing of Sare pul to Shiberghan road along with 7 culverts with the budget of US\$ 200000, dated 12 October, 2022.

3-3-2 Railway Transport

The Afghanistan Railways met with the head of Iran Railways on 15 June, 2022 to discuss ways to resume the launch of Khaf-Herat Railway. In December 2020, Iran and Afghanistan inaugurated the first cross-border railway link between the two countries. Work on the 225-kilometer railway line, which links Khaf in eastern Iran with Herat in western Afghanistan began in 2007. Of this line's four sections; two are in Iran and the rest in Afghanistan where only one section, an 85-km-long stretch running between Ghurian and Herat remains to be completed. The project is likely to be co-financed by Iranian investors who will be looking at a return of investment in Afghanistan and central Asia.

Furthermore, the economic commission of the de facto authority announced that the new contract for the Hairatan railway project in Balkh will be put out to tender. Taliban spokesman mentioned on 22nd June, 2022 that agreement was reached with DP World Company of the United Arab Emirates to modernize Hairatan port and provide facilities for Afghanistan's exports. The Hairatan-Mazar-e-Sharif railway line was managed by Uzbekistan for the last 11 years, however; recently the Uzbek officials have agreed to hand over the management of mentioned port to Taliban.

In Sep 2022, Afghanistan railway administration, representative, Uzbekistan, and Kyrgyzstan signed an agreement in Tashkent to establish a new economic corridor. It mentioned that the corridor will be a trial based for 3 months to transport commercial goods from China to Kyrgyzstan and via Uzbekistan's railroads to Afghanistan Balkh province. In addition, Afghan domestic and transit goods will also be delivered to these countries via this corridor in a few days. Several types of transport vehicles will be included in this corridor in some cases trucks but in most cases, trains will be used. This economic corridor will allow commercial goods that used to take a month to get from China to Afghanistan by car to arrive in two weeks by rail. In Oct 2022, the first cargo was dispatched from China to Afghanistan.

This shipment along the China-Kyrgyzstan-Uzbekistan-Afghanistan corridor was conducted one time and stopped due to some unknown reasons.

3-4 Support Status of International Donors

The fall of Kabul has largely wiped out gains in Afghans' standards of living that were made over the two decades in all sectors. On the other hand, Taliban have proven resistant to international expectations, pursuing a narrow, repressive vision of governance. According to UN report (July, 2022) on the Taliban's first 10 months in power documented that Afghans' fundamental rights and freedoms remain severely curtailed, especially for women and girls, who face persisting restrictions to their right to education, participation in public life and access to work. Recently, the situation on women rights got worse; in addition to secondary educations, the ministry of higher education announced a ban on women's higher education in all public and private universities and other educational centers. Moreover, women work in UN and International NGOs have also been banned which has caused a major obstacle on delivering humanitarians supports to Afghans across the country.

More than 10 major donor countries including the United States, UK, Japan and the High Representative of the European Union condemned Taliban's reckless and dangerous order barring female employees of national and international NGOs from the workplace puts at risk millions of Afghans who depend on humanitarian assistance for their survival.

The Taliban's failure to meet Western expectations of governance intensifies the risk that foreign aid enables an oppressive, strict regime, greatly complicating donor efforts to address even the humanitarian and economic crises. Providing support on economic development projects particularly transportation and road constructions are not possible at this moment of time.

3-4-1 Major Supporting Countries and Bilateral Donors

Following the August 15, almost all foreign governments and international organizations have halted efforts on development projects including infrastructure development which aimed to strengthen the country's economic growth, though major international efforts are carried out to address immediate humanitarian needs and to provide support for essential basic services.

In September 14, 2021 as a result of emergency international meeting in Geneva, donors pledged more than \$1.1 billion to help Afghanistan, where poverty and hunger have spiraled since August 2021, and foreign aid has dried up, raising the spectra of a mass migration.

UNOCHA subsequently prepared a humanitarian response plan to reach 24.4 million Afghans, at an estimated cost of US\$4.4 billion over CY2022 (the UN's largest ever country appeal). On March 2022, the UK co-hosted a humanitarian summit for Afghanistan, including representatives from 115 countries, organizations and International Financial Institutions with the aim of raising US\$ 4.4 billion with response to humanitarian support for Afghanistan. The international donors pledged to provide over \$2.6 billion, fell short raising the amount stated in UNOCHA humanitarian response plan.

Since August 2021, the international community has progressively moved to expand support to the people of Afghanistan. The US has issued a series of licenses and permissions, aimed at clarifying the scope of sanctions and thereby allowing the resumption of a broader range of commercial and aid transactions and activities. Office of Foreign Assets Control (OFAC), has gradually issued seven General Licenses (GLs) to let US, other donors and their implementing partners to circulate financial flow and pave the ground for several humanitarians related activities and even development projects in Afghanistan (Table-3-4-1). Among which GL 19 and GL 20 are particularly emphasizing on expanding the financial support and flow for development activities to NGOs and even eased the sanctions on limited relevant governmental sectors.

At the same time, the World Bank, Asian Development Bank (ADB), the United Nations Development Program (UNDP), and the Islamic Development Bank (IDB) have mobilized resources for basic service delivery activities through off-budget delivery mechanisms, including engagements to support primary health, education, food security, and community resilience. The expanded approach aims to support the delivery of essential basic services, protect vulnerable Afghans, and help preserve human capital and key social services. The international community has started considering options for mobilizing support

to the economy, including efforts towards restoring key financial sector and central bank functions.

The United States is the single largest donor of humanitarian assistance to Afghanistan which has provided more Than \$1.1 billion since August, 2021. The EU Member States pledged 1.15 billion while UK and Japan have promised to provide \$US 380 million and \$US 109 million, respectively. As the multilateral organizations, WB and ADB have largely concentrated on coordination and disbursing of the pledged supports to the people of Afghanistan mainly via UN agencies and UN partners to deliver lifesaving food and nutrition assistance; water, sanitation, health and protection services, including gender-based violence prevention and response activities to address the increasing needs and vulnerabilities of women and girls. Additionally, this assistance has funded efforts to reintegrate returnees in their areas of origin, provide multi-sector aid to displaced populations in Afghanistan and neighboring countries. Under the multi-sector activities community resilience, urgent community roads pavement is also included to address basic needs of the residents.

Table 3-4-1 OFAC General Licenses (GL) released for Afghanistan

No	General license	Description	Issuance Date
1	GL 14	Humanitarian activities	September, 2021
2	GL 15	agricultural commodities, medicines, and medical devices	September, 2021
3	GL 16	It allows processing of personal remittances.	December 2021
4	GL 17 GL 18 GL 19	The licenses expanded the scope of permissible transactions beyond basic humanitarian aid. The list of activities covered by GL 19 includes humanitarian projects, activities to support rule of law, citizen participation, government accountability and transparency, human rights and fundamental freedoms, access to information, and civil society development projects; education; non-commercial development projects directly benefitting the Afghan people; and environmental and natural resource protection.	December 2021
5	GL 20	It clarifies that transactions with certain Public Entities and Ministries currently sanctioned by OFAC, are released.	February 2022

3-4-2 Current Status of Major Funds and Programs in Transport Sector

As explained above, Afghanistan transportation sector development was largely dependent on international aid. After August 2021, the international community has stopped providing aid to Afghanistan where almost all the ongoing and future transportation and infrastructure projects came to a halt. This has severely hampered transportation sector throughout the country including urban transportation. The major highways are being deteriorated rapidly with no capacity and enough budget in the government side which will bring about billions USD losses and harsh impact on the economy of the government in the mid and long term.

Major Donors, Program or Funds and their current status are summarized in Table-3-4-2. The supports which have been used to rebuild transportation sector are either suspended or targeted mainly to humanitarian supports at this moment of time.

Table 3-4-2 Major Donors and Their Current Status for the Transport Sector

No.	Bilateral/Multilateral Donor	Program/Fund	Current status
1	USA (USAID/DOD)	USAID/CERP/PRT (Highways/Provincial and local roads)	All development funds have either been cancelled or suspended. Since August 2021, US\$ 1.1 billion has been pledged or donated to support humanitarian

			activities.
2	ADB	AITF/ADF (Highway & Railway)	All projects funded via AITF, are suspended. However, US\$ 438 million have been provided for Humanitarian supports.
3	World Bank	ARTF (ARAP, NSP/Citizen Charter)	ARAP/NSP/Citizen charters are stopped. US\$1 billion from the ARTF has been spent on Humanitarian supports.
4	EU States Members (via ADB/WB/Others)	ARTF/EU commission, etc.	EU officially suspended all development project. US\$ 1.15 billion is pledged for Humanitarian supports.
5	Japan (Via JICA/MoFA/ADB /UN agencies)	Grant Aid/Technical Cooperation /AITF	All sorts of development projects are either suspended or cancelled. US\$ 109 million donated to address the humanitarian crisis.
6	Others (Italy, Saudi Arabia/India/IDB etc.)	AITF/ARTF and others	All development projects are stopped. Supports only targeted humanitarian crisis.

Abbreviations: DOD: Department of Defense. CERP: Commander's Emergency Response Program. PRT: Provincial Rehabilitation Team. AITF: Afghan Infrastructure Trust Fund. ADF: Asian Development Fund. ARTF: Afghanistan Reconstruction Trust Fund. ARAP: Afghanistan Rural Access Project. NSP: National Solidarity Program. IDB: Islamic Development Bank

International community has conditioned official recognition of the government and resumption of development aids on promoting, protecting and respecting all human rights, in particular women and girls, as well as children, minorities, and respect the rule of law and freedom of speech and of the media. Moreover, they emphasized and put pressure on Taliban to establish an inclusive and representative government through negotiations. Since Taliban leadership showed constant resistant and consider themselves independent in the decision, selecting type of government and ruling the country, it is unlikely that recognition and resumption of development projects take place in the near future.

CHAPTER 4 CHALLENGES AND RECOMMENDATIONS

The land transport network in Afghanistan is an important part of the regional transport network, however; continuous war and its impacts have prevented the country to enhance the efficiency of the network. Although, the transport network in the country is planned to be a vital chunk of CAREC Corridors, Asian Highways, and the Silk Road, the unstable political situation, poor security, lack of physical infrastructures, weak organizational system, and capabilities of the ministries in charge, unavailability of required budget, poor border procedure, poor maintenance of available infrastructures, and corruption in the country have been observed as the obstacles on the way. This chapter summarized the current challenges in the land transport sector, lessons learned from the past 20 years and provide recommendations to mitigate or minimize the impacts of the challenges that the sector is facing.

The severe impact of instability and conflicts-sensitive situation persist on Afghanistan's transport sector even since August 2021. In addition, its susceptibility to climate change and natural disasters, caused more difficulties to the transport sector. On the other hand, the country continues to suffer from weak institutions and poor governance as well as poor economic and social turmoil the country's geography; its small dispersed population; and the vastness of the area to be serviced by transport, are the other problems to be mentioned for the Afghanistan transport sector. Some of the major challenges that the sector is currently facing and recommendations to overcome or minimize these challenges are briefly discussed in this chapter.

4-1 Policy/Institutional Challenges and Recommendations

4-1-1 Challenges

(1) Vision and Policy Uncertainty in the Transport Sector

Uncertainty about the vision and policy of the de facto authority in the transport sector, has been raised as one of the major challenges. Although the Ghani government had a clear vision and developed ANDPF-II with the main objective of transforming Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region, it is not clear whether the de facto authority has adopted the same vision, strategy and master plans in the transport sector or will develop its own. The de facto authority does not act as an organized government with clear vision, rather the major policies and decisions are issued by the leader.

(2) Poor Border Crossing System and Procedures

One of the major challenge to the Afghanistan land transport is the complicated border procedure and poor border crossing as stated in chapter-2, section 2-53. Long processing time at BCPs (Border Crossing Points), complicated and time-consuming procedure at customs, trouble created by Pakistani side in Karachi port, long waiting time for logistics entering or crossing Kabul and lack of space to repair damaged vehicles are the challenges.

(3) Law Enforcement

Transport Law enforcement is another major challenge in Afghanistan's road sector transport. Overloading of trucks causes rapid deterioration of pavement surface and decreases the service life of the roads. Over speeding and overtaking in areas where enough sight distance is not available, causes serious accidents and deaths. According to the WHO data published in 2020, road traffic accident deaths in Afghanistan reached 6,033 or 2.60% of total deaths.

(4) Security and Politics

The main factors behind all the problems in Afghanistan including the challenges of transportation, have been the continuous war, unstable political situation, and their impacts. Mentioned issues have not only deters major foreign investors, and local and international developing partners to assist the development or maintenance of the transport infrastructures but also, it caused direct damage and destruction of the roads and bridges.

4-1-2 Recommendations

The following countermeasures are recommended to overcome or minimize the challenges mentioned in section 4-1-1:

- Construction of the remaining portions of the major network, maintenance of the existing roads, and developing and expanding the railway network is beyond the technical and financial capacity of the de facto authority. Taliban should deal positively with the international community and comply with the conditions set for the official recognition to pave the ground for negotiation with donors to resume their supports. If not, the achievements of the past 20 years in the transport sector will be in vain.
- Standard Infrastructure Asset Management System shall be established in both the MOPW, MRRD, and Afghanistan Railway Authority. A practical capacity development program should be conducted in planning, designing, construction supervision (including contract management, quality control management, progress control, and safety management), operation, and maintenance of road and railway infrastructures. The capacity development programs should contain on-the-job training and be conducted in a way to institutionalize the capacity in the organization.
- To overcome the challenges of the border crossing system, the One Stop Border Posts (OSBPs) system should be established based on BCP infrastructures and operations assessment. The OSBP enable goods, people, and vehicles to stop in a single facility in which they undergo necessary controls following applicable regional and national laws to exit one state and enter the adjoining state.
- Based on the past 20 years of experience in Afghanistan, it is recommended that MOPW mainly perform the management and supervision of the construction and maintenance work. All construction and maintenance works shall be outsourced due to ineffectivity and are not cost-effective. Additionally, contract management problems such as the delayed release of payments, insufficient transparency, and so on should be solved and systemized.

4-2 Organizational and Budgetary Challenges and Recommendations

4-2-1 Challenges

The organizational and budgetary challenges for the transport sector of Afghanistan are summarized below:

Weak Organizational System, Lack of Coordination, and Capabilities:

The MOPW, MOT, municipalities, and provincial authorities are mainly involved in planning, designing, construction, construction supervision, operation and maintenance of the roads. Basically, MOPW is responsible for the development and O&M of regional, national, and provincial road networks, while local municipal authorities are responsible for the construction and maintenance of urban roads. Moreover, MOT is responsible for regulating the private sector transport industry, civil aviation, and the operation of airports. However, there is no proper job demarcation or memorandum of understanding among mentioned organizations. Sometimes, it's unclear who is responsible for the construction or maintenance of transport infrastructures.

Moreover, due to the unstable political situation, the poor security, particularly after August 2021, those organizations lost most of their important trained staff. Migration or replacement of highly educated professionals particularly from key positions have brought new challenges in the sector, where most of the newly recruited staff are either religious scholars or even uneducated. Planning, designing, construction, supervision, operation and maintenance of the transport infrastructure requires qualified staff with high-quality institutional capacity besides the budget which is currently scarce in Afghanistan transport-related authorities and institutions.

On the other hand, although the major contribution to the transportation sector development came from International Community, the past experiences indicated that delays in the delivery of pledged support,

fragmentation, and inconsistency in the donor's support, poor communication with the government side, were among other challenges.

Unavailability of Required Budget

Construction of the remaining main routes and operation and maintenance of the Afghanistan roads require greater funding which is currently not available. Afghanistan was mostly dependent on foreign aid for infrastructure development and maintenance but after August 2021, the international community is not supporting the country's infrastructure development or maintenance projects.

4-2-2 Recommendations

The following countermeasures are recommended to overcome or minimize the challenges mentioned in section 4-2-1:

- Afghanistan is one of the core countries for CAREC as four of six transport corridors are traversing the country. Therefore, the remaining section of the Afghanistan Ring Road, East-West Corridor, Kabul Ring Road, Salang Tunnel, some railway routes, etc. were supposed to be funded by CAREC. After official recognition by international society, the legal government should negotiate and convince the CAREC and ADB to resume back their activities in the Transport Sector.
- Organizational capacities of the related organizations such as MOPW, ARA, and MOT should be enhanced through effective capacity development programs and the provision of required equipment. First of all, a clear job description and memorandum of understanding should be prepared between transport-related organizations and ministries. Any duplication and missing problem in the ToR of the ministries should be eliminated. Then the organizational structure of each ministry should be revised based on the updated ToR considering the country's needs in each sector. Finally, all the required staff in the organization should be hired.

4-3 Infrastructure Challenges and Recommendations

4-3-1 Challenges

Poor Physical Infrastructures

Afghanistan's road transport infrastructures have been remarkably developed since 2002 though the important sections of major roads are still not paved or seriously damaged that require reconstruction. On the other hand, most of Afghanistan's national highways are two-lane roads. Those two lane roads are easily blocked by traffic due to several reasons such as the misbehavior of the drivers, sliding of hill area, flooding, damage of heavy vehicles blocking one lane, etc. Moreover, the lack of safety signs and tools along the major highways causes serious transport safety issues.

Additionally, the lack of bonded warehouses is another major challenge in Border Crossing Points (PCB) besides the lack of coordination between countries, aging trucking fleets, and no insurance coverage. A bonded warehouse is a site where shippers can store imported goods before customs have processed them.

Poor Maintenance of Available Infrastructures

Afghanistan has 19,327 km of major roads consisting of national highways, provincial highways, and district roads. As explained in Chapter-2, the current surface condition of these roads have been rapidly deteriorated. During the past 20 years, billions of dollars were invested in the construction and rehabilitation of roads but the operation and maintenance were neglected both by the donors and the government. The causes of neglecting of O&M of the transport infrastructure might be low knowledge of the O&M importance in Afghan organizations, low institutional capacity, and scarce budget resources, and so on.

Although, USAID, ADB, and other donors had implemented capacity development projects in MOPW in the past, but those projects were never been enough to enable MOPW technically independent to perform their organization's technical tasks.

Moreover, the number of required machineries and equipment procured for MOPW, were considerable

for road maintenance in recent years, however; professional handling, functionality and proper maintenance of these machineries have been remained as another challenge.

Climate Change Impact on Corridors

Afghanistan is one of the most vulnerable countries in the world to the effects of climate change because it's the least equipped country to deal with the consequences of climate change. As per the ADB Transport Master Plan for Afghanistan 2017, 7 million Afghans have been affected by disasters and extreme weather events, such as drought, earthquakes, disease epidemics, sandstorms, and harsh winters. Moreover, climate change causes serious damage to road infrastructures through flooding, land sliding, increasing freeze and thaw cycles, etc.

Limited Railway Network

Landlocked Afghanistan has only a 104 km functional railway network which is never enough for the country and regional needs. Afghanistan as the country provides an important geographic link between Central Asian and South Asian countries, especially with the potential to provide transit access to the ports of India, Iran, and Pakistan. Utilizing the geopolitical position in Asia, and developing a required railway network can provide economic transport solutions in the region.

Different Railway Gauges in the Surrounding Countries

The selection of rail gauge is one of the major challenges for Afghanistan's railways system development because Afghanistan's neighboring countries are using different railway gauges. Iran is using the standard gauge while Tajikistan, Uzbekistan, Turkmenistan, and Kazakhstan are using Russian Gauge while Pakistan's rail, initially constructed as part of the Indian rail system, uses the British gauge.

4-3-2 Recommendations

The following countermeasures are recommended to overcome or minimize the challenges mentioned in section 4-3-1:

- Parallel with the above mentioned points, MOPW and MRRD should urgently make practical working groups for road maintenance using the existing resources and machinery. The working group may be developed based on the available staff, equipment, and resources for urgent and necessary road maintenance. The working group should contain inspection, urgent repair design, and repair work teams. The working groups should start the maintenance of transport infrastructures based on priority and risk of vulnerability.
- Traffic signs, equipment and devices such as guard rails, safety mirrors (driveways mirrors), speed limit signs, traffic safety cones, etc. which were either not installed since the reconstruction of Afghanistan's major roads or damaged by the passing of time, should be re-installed to improve road safety and decrease transport casualties. Additionally, speed limit rules, overtaking rules, and overweight rules should be strictly considered based on the required standards and mechanisms.
- A survey should be conducted on all main transport corridors identifying the most vulnerable areas to climate change. Required countermeasures should be classified as urgent, mid-term, and long-term. Urgent countermeasures should be taken at the earliest possible time considering the available resources.
- Afghanistan's railway system should be gradually developed with the support of international partners as explained in 4-2-2.

4-4 Recommendations for Priority Projects

Based on the series of the studies, the challenges mentioned in the 4-1 to 4-3, unofficial interviews with technical staff of MOPW & MOT, and our lessons learned & experiences from the "Project for Capacity Development for Management of Kabul City Road Improvement", it is recommended to execute the following projects as the priority projects:

Capacity Development for Management of National Highways

National Highways are the backbone for the transportation, economic and social development of Afghanistan. Billions of dollars were invested in the past 20 years to reconstruct the national highways. However, the institutional capacity of MOPW who plan, design, construct, operate, and maintain the national highways is far below the required level which is explained in chapter-2, section 2-3-2. Therefore, JICA project team recommends the execution of a capacity development project “Project for Capacity Development for Management of National Highways in Afghanistan” similar to the project recently implemented in Kabul Municipality (2016 to 2021).

The objectives of the potential CD project will be; to enhance MOPW capacity in highway management. The project is recommended to contain training in surveying, design, construction supervision, and maintenance of the national highways. Based on the lesson learned from the previous CD project in KM, the potential project is recommended to have Training of Trainor (TOT) training, Pair Training (PT), and On the Job Training (OJT) cycle. The TOT members will receive training from international experts who have enough experience and expertise in the related field. Then the TOT member will train their PT colleagues to institutionalize capacity development in the organization. OJT will be conducted to practically implement the knowledge gained in TOT and PT.

Capacity Development of Public Transport System in Kabul City

Several studies have been conducted on the transportation system of Kabul city since the JICA master plan has been developed in 2008 for Kabul city. Almost all of the studies including the master plan propose the development of a sustainable public transport system for the city to cope with the intercity travel demand. The current de facto authority has also realized the importance of public transport for Kabul city. MOT has listed the development of public transportation for the major cities of Afghanistan including Kabul city as their priority projects. The list of MOT priority projects is shown in Annex-VI where the establishment of the public transport system is prioritized in items three and four. Hence, the JICA project team recommends the enhancement of the capacity development project for the re-establishment of the public transportation system in Kabul city.

The objectives of the potential CD project “Project for Capacity Development for Re-establishment of Public Transport System of Kabul City” will be; to enhance MOT capacity in establishing a sustainable public transportation system for Kabul city. The project is recommended to contain the evaluation of demand for public transport, evaluation of the capacity of the existing road network, specifying the routes for public transport based on demand and infrastructures, specifying the type of buses, proposing a system for maintenance of buses, and planning and designing of transportation terminals. The procedure explained for the National Highway capacity development project is recommended for the MOT capacity development project as well.

Annex-I: Summary of National Policies and International Conferences on Afghanistan Rehabilitation from 2001-2021.

The joined overall policy of Afghan government together with international partners for Afghanistan rehabilitation, have been divided into two major periods. The major achievements for developing strategies and policies at national level focusing in the context of road and transportation sector are discussed.

➤ UN-led period of Transition (2001-2014):

In Bonn conference, international society together with Afghan representatives agreed to consider a period of transition where international community provided technical and financial supports for Afghanistan to build security forces, improve basic infrastructures for transportation, education, health etc. and to build human resources so that Afghans are stand on their own feet to run the country and build the economy.

➤ The National Development Framework (NDF):

As the first government overall strategy, NDF was developed by the Afghan Interim Administration in early 2002 provided the basis for good governance and rehabilitation, reconstruction. NDF had three following main pillars:

- Humanitarian assistance and social policy.
- Creation of sustainable growth.
- External assistance to build the physical infrastructure and natural resources.
- Transport development was one of the major program under this pillar which aimed to run the country through making transport easier and cheaper. This required a major roads program, both on the highway network and for rural access to provide access to markets both domestic and international.

The government encouraged donors, in that time, to fund and implement only those projects consistent with the goals and strategies outlined in the NDF.

➤ Tokyo International Conference on Reconstruction Assistance to Afghanistan, 2002

The International Conference on Reconstruction Assistance to Afghanistan was held, including 69 countries and international organization representative, in Tokyo with the participation of the Chairman of the Afghan Interim Administration (AIA), H.E. Mr. Hamid Karzai. The Conference provided an opportunity to reaffirm its determination to pursue the process of reconciliation, reconstruction and development of Afghanistan, according to the Bonn Agreement, and provided the international donor community an opportunity to express its political support for this process with indications of concrete assistance. According to Preliminary Needs Assessment of AIA and priorities mentioned in NDF, it was estimated that reconstruction of Afghanistan will cost some \$15 billion over the next decade.

The cumulative amount was more than 4.5 billion US dollars commitment was announced for 2002-2006 with 1.8 billion US dollars to be provided in 2002.

➤ Linking relief, rehabilitation and development programme (LRRD) (2001-2006)

The LRRD study was the first joint effort on sectors review by the Groupe URD and many international partners (Solidarités, Afghan Aid, Geres, AMI, AKDN), and Afghan ones (COAR, CAF, CFA) with Afghanistan line ministries; MAIL, MoUD, MOH, MoE, MEW, MOWA to create a platform to observe, coordinate and harmonize international community efforts for Afghanistan.

In line with NDF, LRRD became the basic frame to invest and implement international donor's support under this frame work.

Since then, various development partners started sponsoring numerous studies/works on Afghanistan's transport sector development needs. The vast majority of these studies have focused on a particular subsector and infrastructure intervention or capacity building, without considering the sector as whole

or the need to coordinate non-physical and physical investments.

➤ **MPW sector strategy, 2005:**

In September 2005, JICA sponsored development of sector strategy for MPW detailing proposed measures to address constraints, problems and causes of road deterioration and degradation. The priorities for the MPW were included; Operation and Maintenance of Roads, Capacity Building in the MPW and The MPW Standard Reform.

➤ **The London Conference on Afghanistan, 2006**

Development of Afghanistan Compact

After the successful completion of the Bonn Agreement, Afghanistan and the international community entered into a new partnership, based upon the development of Afghanistan Compact, which was agreed at the London Conference in 2005.

Compact identified three critical and interdependent areas of activity for the five years; 1) Security 2) Governance, Rule of Law and Human Rights and 3) Economic and Social Development. Under the Economic and Social Development, Road and Air Transport was included which was given the highest priority.

Roads: Afghanistan will have a fully upgraded and maintained ring road, as well as roads connecting the ring road to neighboring countries by end-2008 and a sustainable system for road maintenance by end-2007.

Air Transport: By end-2010: Kabul International Airport and Herat Airport will achieve full International Civil Aviation Organization compliance; Mazar-i-Sharif, Jalalabad and Kandahar will be upgraded with runway repairs, air navigation, fire and rescue and communications equipment; seven other domestic airports will be upgraded to facilitate domestic air transportation.

In addition, in the London conference, it was agreed to provide a prioritized and detailed Afghanistan National Development Strategy (ANDS) with indicators for monitoring results, including those for Afghanistan's Millennium Development Goals (MDGs). In order to achieve goals set in compact, a new commitment of USD 10.5 billion was announced.

➤ **Afghanistan Transport Sector Master Plan, 2006**

With the ADB technical and financial support, MPW prepared Transport Sector Master Plan for 2006-2017, which become as the main official document for improvement of regional and national highways and provincial roads including assessment, strategies, road map and framework.

➤ **The Afghanistan National Development Strategy (ANDS)**

As per the agreement in London conference, ANDS was developed for the period of 2008-2013. It was Afghan-owned blueprint and a comprehensive strategy for the development of Afghanistan. It had three main pillars; 1) Security 2) Governance, Rule of Law and Human Rights and 3) Economic and Social Development.

ANDS was a Millennium Development Goals (MDGs) based action plan and road map for developing the country's transport sector. Pillar 3 insisted on a safe and integrated transport network that ensures domestic and international connectivity by moving people and goods reliably and at low cost.

In line with ANDS, the Afghan government further initiated National Priority Programs (NPPs) covering such areas as governance, service delivery and infrastructure. The government asked donors to align their programs with the NPPs to coordinate and target development efforts in support of principles of aid effectiveness.

➤ **Paris-Donor Conference for Afghanistan, 2008**

In order to achieve the goals set forth in the ANDS, Afghanistan asked the donors to help a fund of US\$50 billion for five-year in institution-building to fight corruption and to accelerate reconstruction of the country.

Donors led by the United States pledged about \$20 billion in aid to Afghanistan with a pledge by Afghan Government to fight corruption.

➤ **International Conference on Afghanistan, The Hague, Netherlands 2009**

The international community supports toward Afghanistan rehabilitations was evaluated. It was realized that there has been miss-coordination between Afghan government and donor society and ultimately within the donor society. The participants acknowledged that greater attention must be given to achieving a well-coordinated and strategically integrated approach. They underlined the critical importance of building on the will of the Afghan people and on the leadership of the Afghan Government to support and assist Afghanistan.

Building on this vision, the participants agreed to pursue the following priority goals in line with ANDS and Paris declaration in June, 2008: to promote good governance and stronger institutions; to generate economic growth (Agriculture, Irrigation, Transportation Networks and Energy utilities). The participants also urged the World Bank and other International Financial Institutions to maintain strong support for Afghanistan.

➤ **The Afghanistan National Development Strategy (ANDS)-updates 2010:**

In 2010, the ANDS was refined and updated with a more specific list of priority programs and projects. In addition, the ANDS provided a planning and policy framework, specific development targets and dates for achievement, and an overall strategic vision to guide investment and reforms in the transport sector until 2020. As part of ANDS, National Regional Integrated Resources Corridor Initiative (NRIRCI) was developed, which prioritize project demands versus estimate and fund resource availability.

Much of the ANDS and the subsequent refinement documents (NRIRCI), focused on the road transport subsector with the following priorities to: (i) upgrade and maintain the Ring Road, (ii) provide improved cross border roads to neighboring countries, and (iii) establish a fiscally sustainable system for road maintenance using private contractors as much as possible.

The ANDS also called for 40% of all villages to be connected by all-season roads to the national road system and 40% of all roads in municipalities to be improved to a good standard. The multilateral development partners provided significant assistance in the transport sector and directed their future supports accordingly.

➤ **The London Conference, 2010**

The international community met to renew their mutual commitment for helping Afghanistan to emerge as a secure, prosperous, and democratic nation.

Afghan government request: Development of trans-regional trade and transit; including work on transport infrastructure including railway and progress on energy and power transmission lines.

In order to develop a sustainable economic growth, the Afghan government emphasized on the creation of regional infrastructure for energy, transportation and water management.

The major decisions were:

- The transition of security responsibility from international to Afghan control which was a new turning point toward security self-sufficiency of Afghanistan
- To this, it was decided that major increase in Afghan national security force numbers
- Commitments to development assistance

➤ **Transformation Decade 2015-2024**

Tokyo Conference, 2012

The Afghan Government and the International Community met on July 8, 2012 in Tokyo to reaffirm and further consolidate their partnership from UN-led period of Transition (2001-2014) to an Afghan-led and -owned Transformation decade (2015-2024). The Tokyo Conference, established a renewed

stronger foundation for partnership to support sustainable growth and development of Afghanistan throughout the Transformation Decade (2015-2024). These undertakings were built on the outcome of the Bonn Conference in December 2011, where the Afghan Government and the International Community mutually renewed their long-term commitments in the areas of governance, security, peace process, economic and social development, and regional cooperation. A total of US\$16 billion commitment by international partners was announced.

In 2014, Mr. Mohammad Ashraf Ghani was elected as a new president, which was a turning point toward Afghanistan overall development policy in general and to transform Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region in particular.

➤ **Afghanistan National Peace and Development Framework (ANPDF-I) 2017-2021**

In 2016, the National Unity Government announced the Afghanistan National Peace and Development Framework (ANPDF) 2017 to 2021. The overall vision of ANPDF was to achieve self-reliance and improve the welfare of the people of Afghanistan. Its main goal was to reduce poverty and improve people's welfare, while other goals included building the legitimacy and effectiveness of the state and achieving sustainable job creation and progress toward the Sustainable Development Goals.

This framework articulated the immediate and long-term development priorities, highlights key reforms, and outlines priority investments needed to achieve development goals in 5 prioritized area.

National Infrastructure Plan 2017-2021 (NIP): The NIP developed to assist in achieving the government's ANPDF vision, as these priority infrastructure investments combined with human capital development and enhanced regional connectivity, provide the essential building blocks for Afghanistan's future economic growth, employment and social development. NIP focused on the efficient planning, delivery and operation of infrastructure at the national and sector level, which will improve performance and deliver improved efficiency, productivity and competitiveness.

➤ **Brussels Conference on Afghanistan, 2016**

The European Union and the government of Afghanistan co-hosted the Brussels Conference on Afghanistan. This conference brought together 75 countries and 26 international organizations and agencies.

Participants endorsed the ambitious reform agenda (contents of ANPDF) presented by the Afghan government. They undertook to ensure continued international political and financial support for Afghanistan over the next four years. The total sum committed by the international community was USD15.2 billion to ensure that Afghanistan will remain on a firm path to political and economic stability, state-building and development.

➤ **Afghanistan Transport Sector Master Plan Update (2017–2036):**

In line with ANPDF and NIP, Transport Sector Master Plan was updated with a technical support provided by ADB. The updated master plan comprises of four main chapters; Transport sector assessment, Transport sector strategy and Transport Road Map and Frame work. The resources required to achieve the plan's goals are mentioned to be substantial, with an estimated investment of about \$26 billion for the 20-year period.

All the above-mentioned strategic documents agreed that integrated transport network infrastructure investments, that are systematically planned and implemented, focused on facilitating the country's economic growth and development; will expand access to domestic, regional, and international markets and social services, increasing employment, and promoting trade, transit and logistics.

The backbone of the transport network in Afghanistan is the road sector that plays an important part in achieving connectivity and integration. The ANPDF 2017-2021, NIP 2017-2021, NPPs as well as the Transport Sector Masterplan, guide the Ministry of Public Works (MPW) to undertake a major body of work in regards to transport infrastructure development.

To that aim, the MPW in line with these strategic documents has developed the MPW strategy 2019-23 that has mainly focused on ensuring road sector investment, improving road networks access and coverage, and enhancing road safety.

➤ **MPW Strategy 2019-2023**

The 1st and 3rd pillar of the document illustrates the plans and objectives of the ministry with respect to institutional reforms and capacity building, and road safety, whereas, the 2nd pillar illustrates the plans and objectives of the ministry with respect to road networks planning and development. That is the planning and development of Afghanistan's primary, secondary, and tertiary road networks. To achieve the goals of road sector strategy, about \$ 4.13 billion over the next five years was mentioned to be allocated.

➤ **Integration of Transport Sectorial Ministries and Establishment of Independent Authorities**

As part of Economic Growth and Infrastructure Development which mainly focused on development of Transport corridors, ANPDF followed by NIP recommended establishment of Road Authority, a Road Fund and Transport Institute were prioritized.,

In 23rd December 2018, President Mohammad Ashraf Ghani ordered the formation of a new administration 'Ministry of Transport' by merging the MPW, Ministry of Transportation, Civil Aviation and Railway Authority, with an aim for on time and effective realization of the goals and priorities of the government in bid to improve better governance, promotion of reforms in the public administration, acceleration of strategic investment process in the infrastructures of the country and prevention of operational interferences among the government institutions. Under the new administration, there were three independent authorities (National Road authority, Transportation and Civil Aviation Authority and Railway Authority).

In 2nd May 2020, President Ashraf Ghani issued a separate decree to suspend a previous order of merging the Ministry of Public Works, the Civil Aviation Authority, the Directorate of Railways, and the Traffic Department of the Ministry of Interior all with the Ministry of Transport. Budget limitations and the "current emergency situations" were mentioned as factors that led to the suspension of the decree.

➤ **Afghanistan National Peace And Development Framework (ANPDF-II) 2021 to 2025**

Building on the achievements of the first document of ANPDF (2017-2021), the ANPDF II was developed to achieve self-reliance, improve food security, eradicate poverty, and productive economy connected to the region and the world, and invest in strong state institutions that are citizen-centered, while also to address the risks imposed by COVID-19.

This framework comprises of three main pillars;

- 1) Peace building; where peace and reconciliation has been given the priority of the document.
- 2) State building: It basically targets government improvement, anti-corruption and human resource development, while physical improvement of the rural infrastructures including roads through citizen charter was also part of it.
- 3) Market-Building: The main objective of this pillar was to transform Afghanistan into an Asian roundabout and a hub of trade, transit, and investment in the region, where comprehensive and effective short-term, medium-term and long-term projects for the development of transportation (roads, highways, and railways) is given the top priorities.

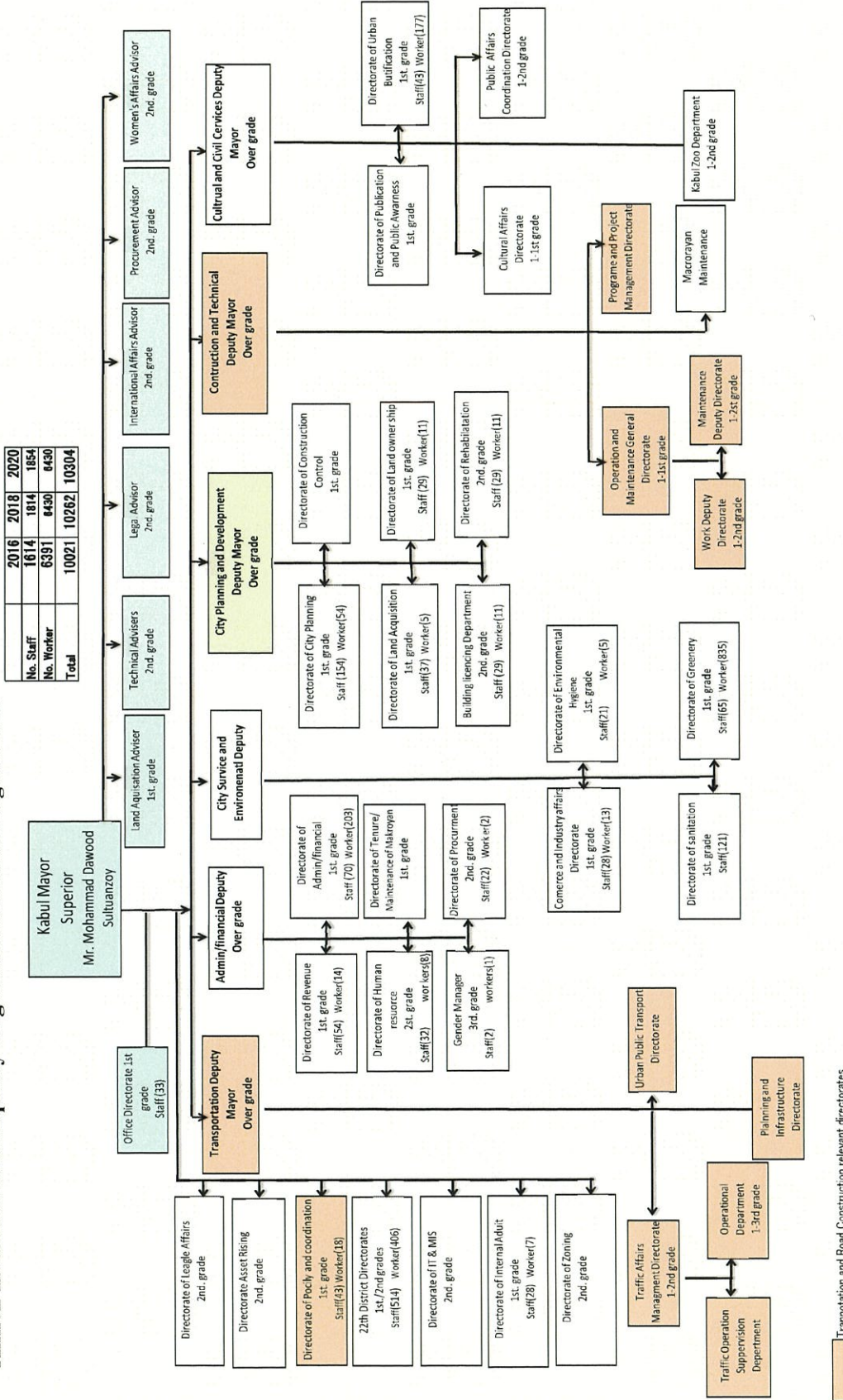
➤ **Afghanistan Sustainable Development Goals (A-SDG): 2017~ 2030**

The United Nations' SDGs are an all-encompassing global set of objectives designed to provide countries with a pathway to peace and prosperity. The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by 2030. The Afghan government has taken concrete measures to nationalize the global SDGs into Afghanistan Sustainable Development Goals.

Establishing an Executive Committee was established to provide a high-level platform for multi stakeholder to harmonize SDGs into Afghanistan context. The global SDGs has been nationalized into Afghanistan SDGs with 16 goals, 110 targets, and 177 indicators.

The alignment of SDGs with Afghanistan National Peace and Development Framework (ANPDF-II) has been assessed and harmonized.

Annex-II: Kabul Municipality Organization Before August 2021



Annex-III: TOR and Job Description of Traffic Coordination, and Public Transportation Directorates

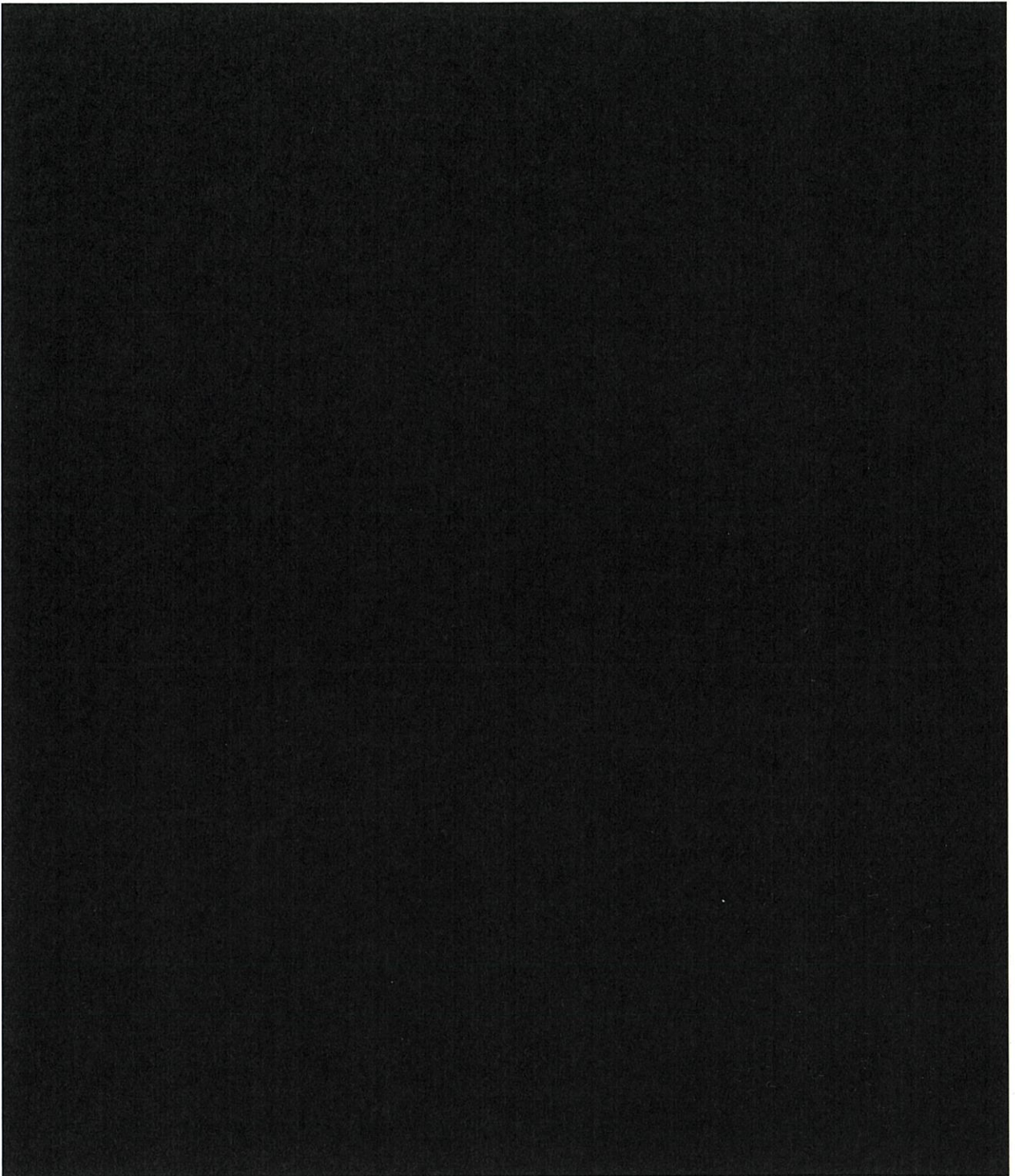
1. Directorate of Cohesion and Coordination of Traffic Affairs in Kabul

- 1- Planning and improving the traffic performance of Kabul city with short-term, medium-term and long-term goals and plans in mind.
- 2- Preparation of a ten-year strategic plan and goals in accordance with the policies of Kabul Municipality in the field of coherence and coordination of Kabul traffic performance in accordance with the law and regulations.
- 3- Identifying and proposing training needs after implementing the Kabul Traffic Training Needs Assessment Plan
- 4- Study and analysis of law enforcement systems and implementation of a new alternative system to improve the efficiency of Kabul traffic.
- 5- Prioritizing Kabul traffic installation and equipment projects and planning the required funds for the implementation of the mentioned projects
- 6- Plan during the stages and implementation of new programs in the drafting section of the new road traffic law.
- 7- Preparation of a joint monitoring plan in coordination with other government agencies in order to solve the traffic problems in Kabul.
- 8- Procurement and supply of traffic personnel equipment, new vehicles, traffic signs, traffic signals and clothes for the traffic wardens of Kabul city according to the plan.
- 9- Public transport management in Kabul city according to urban needs.
- 10- Analysis of traffic problems, challenges and activation of signals, sidewalks and stations.
- 11- A system in Kabul traffic in order to simplify the process of registering a driver's license, and issuance of electronic license documents.
- 12- Establishment of audio-visual system in order to handle complaints in person and by telephone in Kabul traffic.
- 13- Preparing a program to create traffic training parks for children, driver training and testing center and preparing curricula, training materials for drivers, trainers, mechanics of traffic police vehicles.
- 14- Improving the condition of roads in Kabul in coordination with relevant institutions in order to provide facilities for vehicles and pedestrians in the city.
- 15- Designing and implementing a plan to attract the cooperation of donor institutions to improve and standardize Kabul traffic as the capital of the country.
- 16- Providing communication and coordination with the traffic police districts of Kabul city and other relevant institutions in order to prepare and implement a monitoring program outside the traffic congestion in Kabul city.
- 17- Traffic accident registration in a standard way. Plan the steps of the new program to create accident registration centers in the most modern way in Kabul.
- 18- Short-term, medium-term and long-term plans for modernization and equipping of Kabul traffic.

2. Department of Public Transport Infrastructure

- 19- Planning reform programs and improving the performance of public transport in Kabul city, taking into account short-term, medium-term and long-term urban goals and plans.

- 20- Preparing a plan and strategic goals to improve public transport services in accordance with the policies of Kabul Municipality.
- 21- Identifying and proposing the required budget and other necessities for regulating urban transport, taking into account internal and external experiences in order to improve its effectiveness.
- 22- Setting up online surveys, interviews and inquiries to obtain accurate working information in order to improve public transport services.
- 23- Study and analysis of urban transport system based on the collected information in order to improve and systematize the provision of effective transport services in Kabul.
- 24- Prioritizing public transport in terms of installation and equipment projects and planning of the required funds for the implementation of related projects.
- 25- Preparing and proposing new programs in the field of legal documents, urban transport procedures to improve the level of urban services.
- 26- Construction of metrobus system, electric rails and subways according to the plan to facilitate the citizens. Taking measures to build standard stations, and storage houses for public urban transport.
- 27- Preparation of a joint monitoring plan in coordination with other government agencies in order to solve the problems of urban transport. Analysis of standards for use when implementing public transport projects in Kabul.
- 28- Preparing and implementing a monitoring program on the activities of transport companies and private sector transport unions in order to implement the laws.
- 29- Determining specific rates of city fare based on previous studies and experiences in order to improve the level of public satisfaction with the management of public transport in Kabul.
- 30- Analyze the problems and challenges of public urban transport and present corrective plans for improvement.
- 31- Preparing a program to create transport parks in coordination with governmental and non-governmental stakeholders.
- 32- Presenting ideas and plans to improve the condition of roads in Kabul in coordination with stakeholders in order to facilitate the effectiveness of transport services in the city.



Annex-V: List of 19 Projects Indicated as Part of the Study for Urgent Rehabilitation Support Program in Afghanistan.

Sector	Project Title	Assumption Costs		Priority
		US\$	JapaneseYen	
Gender	Improvement and New Construction of Kindergarten in the Community with Equipments and Materials	240,000	30,000,000	C
Gender	Construction of Women's Center and Supply Equipments and Materials	168,000	21,000,000	C
Urban Reconstruction	Development of Central Laboratory for Construction Materials	2,024,000	253,000,000	B
Traffic Management	Improvement of Major Intersection in Kabul City	14,400,000	1,800,000,000	B
Traffic Management	Pedestrian Overpass for Major Intersection at Salang Wat & Asmay Wat	576,000	72,000,000	B
Water	Development of New Water Sources for Kabul Water Supply and Regional Water Supply Plan	3,300,000	400,000,00	A
Water	Supporting Project for Urgent Water Supply by Water Tank Trucks	4,000,000	500,000,000	A
Sanitation/Solid Waste	Urgent Improvement Plan for Sanitation in Kabul City-Program for Reconstruction of Public Toilets	2,800,000	350,000,000	A
Sanitation/Solid Waste	Rehabilitation Project for Microrayan Sewage Treatment Plants	6,400,000	800,000,000	B
Sanitation/Solid Waste	Sewage Development Plan and Pilot Project for Night Soil Collection and Removal	3,600,000	450,000,000	B
Sanitation/Solid Waste	Urgent Improvement Plan for Sanitation in Kabul: Municipal Solid Waste Collection and Disposal Program	12,500,000	1,560,000,000	B
Power Supply	Reconstruction of Distribution System in Kabul City	36,000,000	4,500,000,000	C
Telecommunication	Urgent Expansion Project of CDMA Telephone Network for Kabul City	32,300,000	4,040,000,000	B
Telecommunication	Development of Backbone-Network by Microwave System	23,200,000	2,900,000,000	C
Telecommunication	Urgent Expansion Project of CDMA Telephone Network for Major 4 Cities	16,600,000	2,078,000,000	C
Public Transportation	Rehabilitation of the Public Transportation Capacity in Kabul City	13,600,000	1,700,000,000	A
Public Transportation	Rehabilitation of the Public Bus Workshop in Kabul City	12,000,000	1,500,000,000	A
Public Transportation	Improvement of the Public Bus User's Facilities in Kabul City	11,000,000	1,375,000,000	C
Public Transportation	Improvement of Public Bus Center in Kabul City	11,700,000	1,460,000,000	B

Source: JICA Study Team

Annex-VI: List of MOT Priority Projects

No.	Name of Projects	Location of Projects	Description of Projects	Remarks
1	Construction of Tollgates	Major highways	The tollgates needs to be constructed in borders and major entrance and exit point of cities	
2	Construction of Transports Internationaux Routiers (TIR) Parks	Major highways	In total 42 tollgates are required to be constructed in different locations in Afghanistan	
3	Re-Establishment of Public Transport System	Kabul, Herat, Qandahar, Knuduz, Mazar		
4	Construction of Transportation Terminals	Major Cities	22 terminals location are specified. The reaming required terminal locations are under study	
5	Construction of Logar International Airport Phase 1	Logar Province	Boundary Wall, Guard Tower and Guard Shake	
6	Construction of Logar International Airport Phase 2	Logar Province	Construction of Runway ,Taxiway, Ramp, Drainage System, Entrance and Internal Roads	
7	Construction of Logar International Airport Phase 3	Logar Province	Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power station building, Metrology Building, Security Center and etc...	
8	Construction of Nangrahar International Airport Phase 2	Nangrahar Province	Construction of Runway ,Taxiway, Ramp, Drainage System, access road, Entrance and Internal Roads	
9	Construction of Nangrahar International Airport Phase 3	Nangrahar Province	Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power station building, Metrology Building, Security Center and etc...	
10	Construction of Herat International Airport Phase 1	Herat Province	Construction of Runway ,Taxiway, Ramp, Drainage System, access road, Entrance and Internal Roads	
11	Construction of Herat International Airport Phase 1	Herat Province	Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power	

			station building, Metrology Building, security Center and etc...	
12	Construction of Kabul International Airport	Kabul Airport	New Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power station building, security Center, five star hotel ,Ramp ,Aviation Institute Building,	
13	Construction of Kandahar International Airport	Kandahar Province	New Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power station building, Metrology Building, security Center, five star hotel ,Ramp ,Aviation Institute Building and etc...	
14	Construction of Nimroz Airport	Nimroz Province	New Passenger Terminal Building, Cargo Terminal, Control Tower, Power station building, security Center, five star hotel ,Ramp ,Parallel Taxiway ,Ramp ,and etc...	
15	Construction of Takhar Airport	Takhar Province	Passenger Terminal Building, Control Tower, Fire Station, Power station building, Metrology Building, Runway, Taxiway, Ramp, Internal Roads, Entrance Roads, Boundary Wall, Guard Tower and Guard Shake and etc...	
16	Construction of Daikondy Airport	Daikondy Province	Passenger Terminal Building, Control Tower, Fire Station, Power station building, Metrology Building, Runway, Taxiway, Ramp, Internal Roads, Entrance Roads, Boundary Wall, Guard Tower and Guard Shake and etc...	
17	Construction of Farah Airport	Farah Province	Passenger Terminal Building, Cargo Terminal, Control Tower, Fire Station, Power station building, Metrology Building, security Center and etc...	
18	Construction of Khost Airport	Khost Province	Construction of Cargo Terminal and Haji camp	

19	Construction of Kundoz Airport	Kundoz Province	Construction of Ramp, Rehabilitation of Runway, Haji Camp, Control Tower and Fire station Building	
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