Sustainable Transport
Connections between Europe and Central Asia
All assessments are based on information as of late Spring 2023.
The EU-EBRD Study on Sustainable Transport Connections between Europe and Central Asia

1. Objectives

The “EU-EBRD Study on Sustainable Transport Connections between Europe and Central Asia”, conducted by the EBRD, and led and funded by the European Union, has two objectives: 1) to identify the most sustainable transport network connecting the five Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) with the EU’s extended Trans-European Transport Network (TEN-T), and 2) to propose key actions for the development of the network, including soft connectivity measures and hard infrastructure investments.

The study promotes the EU’s comprehensive, sustainable, rules-based and people-centred approach to connectivity, and contributes to the implementation of the EU Strategy on Central Asia (2019) and the EU’s Global Gateway Strategy (2021).

The findings contribute to transparent action identification and prioritisation for transport infrastructure planning and development in Central Asia, based on a set of strict sustainability criteria, including environmental, socio-economic, political, financial, and fiscal aspects. Results also help identify investment opportunities for stakeholders, including International Financial Institutions (IFIs) and private sector. The final report on the Study will be published and circulated by the end of June 2023.

A large set of stakeholders have been consulted for input throughout the implementation of the study, including government authorities (including but not limited to ministries for transport, economy, investments; railway and road authorities; customs agencies; strategy and planning offices) in each Central Asian country, associations and the private sector in Central Asia, Europe, the Caucasus, and Türkiye, EU Member States and EU Delegations in the region, IFIs and other relevant international organisations.
2. Approach

The study assesses the current situation of transport corridors in Central Asia, as well as bottlenecks and opportunities. Three currently existing corridors passing through Central Asian countries were assessed against each other using an objective-specific Multi-Criteria Assessment (MCA) Framework. The most sustainable network is identified based on five sustainability components:

1) Country assessment (economic and fiscal outlook, political viability, legal and regulatory environment),
2) Traffic assessment (current transit trade volumes and potential, trade facilitation measures, non-tariff barriers),
3) Infrastructure assessment (capacity of the network, infrastructure performance and efficiency, planned upgrades),
4) Social and environmental assessment (environmental impact of route operations, commitment to sustainability goals, safety and security of route operations, social and environmental considerations),
5) Economic integration assessment (domestic and regional connectivity enhancements).

Accordingly, the Central Trans-Caspian Network, traversing through Southern Kazakhstan is identified as the most sustainable option, allowing for further transport network and regional development by taking a two-layer catchment area approach that spans the territory of all five Central Asian countries and covering most of the major population and production centres of the region.

The development of the Central Trans-Caspian Network would yield significant benefits for the region:

1) **Stronger regional coordination**, resulting in unified tariffs and a single corridor management approach,
2) **Increased connectivity between economic centres**, resulting in higher regional and international value chain integration,
3) **Improved border crossing practices**, lowering transaction costs and increasing user-friendliness of procedures,
4) **Enhanced long-term planning**, improving project prioritisation and implementation,
5) **Better environmental outcomes**, driven by lower GHG emissions and pollution.
Following the identification of the most sustainable connections, an iterative process is taken to identify specific projects. First, a long-list of actions are shortlisted to **39 actions across all the five Central Asian countries**, including soft connectivity measures and infrastructure investments needs, focusing on the potential impact of projects on transactions costs, network reach, competition and high-level environmental and social benefits.

In the second step, an action-specific MCA framework is used for **prioritisation of shortlisted investments**. The criteria for action prioritisation includes **six sustainability components**:

1) Financial and economic viability,
2) Ease of implementation,
3) Incremental trade benefits,
4) Alignment of projects with national and strategic donor priorities,
5) Potential geopolitical impacts,
6) Environmental and social benefits.

### 3. Results

The Study proposes **7 soft connectivity measures and 32 hard infrastructure investment needs** as specific, concrete, implementable and realistic action items that can **contribute to the sustainability, competitiveness and operational efficiency of the Central Trans-Caspian Network**. Soft connectivity measures are low-cost, high-benefit action items, which can yield significant benefits to the implementing countries and the wider Central Asian region. The Study identifies **country-specific and concrete points of intervention** to lower transaction costs, increase operational efficiency and enhance private sector participation to increase the efficiency of service provision. Such measures relate to digitalisation of transport documents, improving interoperability, enhancing PPP environment, trade facilitation, market liberalisation, improvements to tariff setting mechanisms, and increasing funding allocation for asset maintenance. Implementation of these measures is a necessary pre-condition for enabling private sector’s involvement and proceeding with hard infrastructure investments with lower transfers from national budgets.

**Total investment needs** to significantly improve the Central Trans-Caspian Network are **estimated to be at around EUR 18.5 billion**. This investment needs relate to railway and road network rehabilitation and modernisation, rolling stock expansion, port capacity enhancements, improvements to border...
crossing points, and multimodal logistics centres and auxiliary network connections in all the five countries involved. Identified investment needs take into account each Central Asian country’s own needs, priorities, capacities and specific conditions. While some of this funding could potentially come from non-sovereign investors, the scope of bankable investment projects remains rather narrow for the moment, due to limited fiscal space, unpredictable traffic volumes on the identified corridors, risks associated with international sanctions currently in place against Russia and Iran, and other constraints. Each project will still need to be carefully assessed individually and meet the standard requirements of any potential lending institution, including feasibility studies and more detailed integrity, technical, environmental/social, and commercial/financial due diligence analyses, as appropriate.

4. Traffic Volume Estimates

Under business-as-usual scenario, transit container volume on the Central Trans-Caspian Network can increase from 18,000 TEUs (est. in 2022) to 130,000 TEUs (2040). However, regional cargo volumes remain limited in this scenario given capacity constraints of the network, and priority of transit cargo flows over bilateral trade.

If investment projects and soft connectivity measures are implemented to achieve a free-flow transit time of 13 days, transit container volume can increase to 865,000 TEUs by 2040 on the Central Trans-Caspian Network. Assuming containerised trade also increases in Central Asia, in addition to aforementioned improvements, the network can also observe regional container volumes of 470,000 TEUs by 2040. Hence, identified and prioritised key actions would not only support cross-continental transportation, but also regional trade and economic growth in Central Asia.

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1 In the business-as-usual scenario, expected GDP and trade growth rates of key trading partners are used to estimate the expected container volumes by 2040. The business-as-usual scenario does not assume any changes to the network capacity or the competitiveness of the network.

2 Twenty-foot Equivalent Unit, (i.e. containers)

3 Regional cargo occupies the difference between the transit traffic allocated to a route and the maximum route capacity (assumed to remain at 150 thousand TEUs). Given the expected increase in transit traffic, maintaining the current levels of network capacity and operational efficiency does not support an increase in regional cargo volumes.
Central Trans-Caspian Network and Its Two-Layered Catchment Area

Source: EBRD
Expected Benefits of Developing the Central Trans-Caspian Network

Stronger regional coordination
- A single-corridor manager
- Unified tariffs and procedures

Increased connectivity between economic centres
- Regional and international value chain integration
- Enhanced economic opportunities

Improved border-crossing practices
- Lower transaction costs and times
- User-friendly procedures

Enhanced long-term planning
- Improved project prioritisation
- Coordinated implementation

Better environmental outcomes
- Climate change mitigation: GHG and pollution reduction
- Climate change adaptation: climate resilient transport infrastructure

More than transport network development

Rather, a new regional development perspective
Multi-Criteria Assessment Approach to Action Prioritisation

1. Financial and Economic Viability
   - User Benefits
   - Economic Development
   - Impact to GDP
   - Impact to Employment

2. Ease of Implementation
   - Country Risk
   - Private Sector Involvement
   - Complexity of the Project

3. Incremental Trade Benefit
   - Incremental Trade Benefit
   - Incremental Freight Capacity

4. Alignment with Policies and Strategic Visions
   - National Policies and Priorities
   - Strategic Donor Priorities

5. Geopolitical Dynamics
   - Mutual Benefit
   - International Recognition

6. Environmental and Social Impact
   - Environmental Impact
   - Social Impact
Major Barriers Hampering the Development of the Central Trans-Caspian Network

Major Barriers on Trans-Caspian Corridors

- Lack of transparent tariffs and fair access to infrastructure
- Limited regulatory harmonisation, data sharing, digitalisation
- Capacity limitations, non-competitive transport times and costs
- Limited opportunities for private sector participation
- Lack of a single corridor management approach

Desired Outcomes from Shippers’ Perspective for the Trans-Caspian Corridors

- Improved service levels
- Increased capacity
- Increased competition and options
- Increased network reach
- Enhanced interoperability
### Soft Connectivity Measures for Short-Term Implementation

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- **Advanced progress**
- **Moderate progress**
- **Limited progress**
Soft Connectivity Measures for Medium-Term Implementation (I)
Soft Connectivity Measures for Medium-Term Implementation (II)

6. Improvements to Tariff Setting Mechanism

- Transparent tariff-setting mechanisms
- Removal of cross-subsidisation
- Timely tariff updates
- Development of regional tariffs
- Consistent tariff implementation

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- Advanced progress
- Moderate progress
- Limited progress

7. Increased Funding

- Improved asset management

KAZ, KGZ, TAJ, TJK, TKM, UZB
Identified Priority Investment Needs: Kazakhstan

- Aktau-Beineu Railway Double Track (EUR 1.376 bil) and Electrification (EUR 388 mil)
- Port Capacity Expansion (EUR 307 mil)
- Fleet Expansion (EUR 200 mil)
- Uchquduk (UZB) – Kyzylorda Road Project (EUR 69 mil)
- Shalkar-Beineu Road Project (EUR 789 mil)
- Nukus (UZB) – Beineu Railway Reconstruction (EUR 159 mil)
- Shalkar
- Irigiz
- Nukus (UZB)
- Maktaaral
- Darbaiza-Maktaaral Railway Project (EUR 318 mil)
- Expansion in Saryagash Railway Station (EUR 9 mil)
- Almaty Railway Bypass Project (EUR 200 mil)
- Almaty-Khorgos Railway Double Tracking (EUR 927 mil) and Electrification (EUR 290 mil)

Key Points:
- Rail Investments for Multimodal Logistics Centers
- Warehousing and Distribution Centers in Multimodal Logistics Centers (EUR 45 mil per center)
- Rolling Stock Expansion and Fitting Platforms in Key Ports/Terminals (EUR 149 mil)
- Existing road network
- Existing rail network
- Short-term
- Medium-term
- Long-term
Identified Priority Investment Needs: Kyrgyzstan

- Developing and Upgrading the Multi-modal Logistics Centers in Osh and Alamedin (EUR 68 mil)
- Electrification (EUR 322 mil) and Rehabilitation (EUR 103 mil) of Balykchy-Lugovaya Rail Line
- Balykchy-Makmal Rail Line (EUR 1.8 bil)

Legend:
- **Existing road network**
- **Existing rail network**
- **Short-term**
- **Medium-term**
- **Long-term**
Identified Priority Investment Needs: Tajikistan

- Development of 1-Stop Border Post, Joint Logistics Center in Fotokhobod (EUR 18.2 mil)
- Electrification (EUR 108 mil) and Rehabilitation (EUR 34.7 mil) of Northern Railway Network of Tajikistan (Khujand-Uzbek border)
- Extension of Existing Northern Railway Line to the Sughd Economic Zone and Northern Part of the Region (EUR 68.2 mil)
Identified Priority Investment Needs: Turkmenistan

- Developing a Logistics Center at Turkmenistan-Kazakhstan Border (EUR 46 mln)
- Turkmenbashy-Karabogaz (Kazakhstan border) Road Rehabilitation Project (EUR 51 mln)
- Turkmenbashy-Gyzylgaya-Konye-Urgench Road Rehabilitation/Reconstruction Project (EUR 291 mln)
- Increasing Uzen-Bolashak-Bereket Line Capacity (EUR 564 mln)
Identified Priority Investment Needs: Uzbekistan

- Nukus (UZB) – Beyneu (KAZ) railway reconstruction (EUR 150 mil)
- Uchkuduk – Kyzylorda (KAZ) Road Project (EUR 97 mil)
- Increased capacity on Tashkent-Samarkand Railway Line (EUR 1.1 bil)
- Construction of Roads from Tashkent to Samarkand (EUR 1.3 bil) and Tashkent to Andijan (EUR 2.5 bil) on a PPP Basis
- On-Kanik Railway Station Capacity Enhancement from 4 lanes to 6 lanes (EUR 4.4 mil)
- Expansion of railway into Namangan FEZ (EUR 8.2 mil) and replication of this practice in other FEZs gradually (EUR 41 mil)
- Development of multimodal logistics centers and A-class warehouses in Fergana Valley, Tashkent Region, Samarkand/Bukhara, and Navoi (EUR 45 mil per center)