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FOSTERING PROSPERITY IN THE FERGANA VALLEY THROUGH ECONOMIC DEVELOPMENT, CROSS BORDER TRADE, AND INVESTMENT

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Table of Contents

List of Tables

List of Figures

Abbreviations and Acronyms

ACLED	Armed Conflict Location and Event Data Project
ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
ASEAN	Association of Southeast Asian Nations
BCP	border crossing point
BRI	Belt and Road Initiative
CA	Central Asia
CAPS	Central Asia Power System
CAREC	Central Asia Regional Economic Cooperation Program
CASA-1000	Central Asia South Asia Electricity Transmission and Trade Project
CASAREM	Central Asia South Asia Regional Electricity Market
CRII	CAREC Regional Integration Index
DFID	Department for International Development
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FDI	foreign direct investment
F&V	fruit and vegetables
GDP	gross domestic product
GIZ	German Agency for International Cooperation
GoK	Government of Kyrgyzstan
GoTJ	Government of Tajikistan
GoU	Government of Uzbekistan
ICT	internet and communication technology
IFC	International Finance Corporation
IFI	international financial institutions
IMF	International Monetary Fund
IOM	International Organization for Migration
IsDB	Islamic Development Bank
ITC	International Trade Center
JICA	Japan International Cooperation Agency
KII	key informant interview
LPI	logistical performance indicator
M&E	monitoring and evaluation
NELTI	New Eurasian Land Transport Initiative
NTB	non-trade barrier
O&M	operation and maintenance
OECD	Organization for Economic Development and Cooperation
R&D	research and development
RVC	regional value chain
SME	small and medium-sized enterprise
TAPI	Turkmenistan–Afghanistan–Pakistan–India pipeline
TUTAP	Turkmenistan–Uzbekistan–Tajikistan–Afghanistan–Pakistan electricity project
UK FCDO	United Kingdom Foreign Commonwealth Development Office
UNCTAD	United Nations Commission for Trade and Investment
UNDP	United Nations Development Program
UNFAO	United Nations Food and Agriculture Organization
USAID	United States Agency for International Development
WB	World Bank

Abstract

Uniquely located at the intersection of regional trade, economic, and transport corridors and interstate borders of Uzbekistan, Tajikistan, and Kyrgyzstan, the Fergana Valley has unique opportunities and strong comparative advantages to drive economic prosperity and growth for the entire Central Asia (CA). While the opportunities are distinct the risks are high, including the legacy of un-delineated borders causing tensions over shared natural resources and infrastructure amid high population density, high levels of poverty, and environmental degradation. On the top of the existing risks, various trade and non-trade barriers (NTBs) imposed by cross border countries, infrastructure and logistical deficiencies contribute to economic fragmentation and complicate the prospects for intraregional integration.

This policy research paper aims to look opportunistically at the Fergana Valley and make a case for the positive transformation of a largely agriculture oriented, isolated, and fragmented region into the center of regional growth and prosperity for the whole of CA. The current momentum of open trade and market reforms in centrally located Uzbekistan is highly conducive to materialize the optimistic scenario. More specifically, the case of horticulture is being considered in terms of the potential to develop regionally competitive value chains driving growth and competitiveness in the Fergana Valley. Also, comparative analysis of the successful approaches to address barriers and promote regional cross border integration from South Asia and Africa is undertaken to draw on the lessons learned and relevant solutions for the Fergana Valley.

The paper concludes with the proposed roadmap of locally relevant recommendations on how to transform the region into an important hub for growth and connectivity in CA. It is expected that the paper will contribute to the expanded analytical foundation and help identify entry points to inform the relevant government policies, potential development partners programming, and private sector investments to promote regional integration in the Fergana Valley.

KEY WORDS: Fergana Valley, Central Asia, Uzbekistan, regional integration, shared natural resources and infrastructure, trade and non-trade barriers, regional horticulture value chains, CAREC, Asian Development Bank, World Bank.

Executive Summary

Many experts rightly consider the Fergana Valley (FV) to be the historical heart of Central Asia (CA). Its approximately 14 million inhabitants, occupying only 0.5 percent of CA, constitute over 20 percent of the total population of CA. Moreover, the FV is about 300 km long and 170 km wide, making it one of the most densely populated parts of the region. The FV is divided among Uzbekistan (60 percent of the FV's territory and 80 percent of the Uzbek ethnic population), Tajikistan (25 percent), and Kyrgyzstan (15 percent).[1]

Centrally located at the intersection of historic trade, economic, and transport corridors, the FV bears huge comparative advantages. It has the potential to drive economic development and serve as a hub for regional connectivity, integration, and cooperation through unrestricted trade and investments, turning the region into an important horsepower for growth for all Central Asian countries. The valley includes some of Uzbekistan, Tajikistan, and Kyrgyzstan's most productive agricultural land, but also has a relatively high level of industrial development compared to other parts of CA.

The economic potential of the FV is the strongest in Uzbekistan thanks to its relatively abundant growth factors, including entrepreneurial labor force; modern manufacturing; attractive tourism and service sectors; competitive SMEs; and textile, agriculture, and food processing capacity. According to the national statistical data (State Statistics Committee, Uzbekistan, 2021), all three provinces of Uzbekistan's part of the FV (Andijan, Namangan, and Fergana) make up about 20 percent of national GDP and nearly 40 percent of total agriculture output (State Statistics Committee of the Republic of Uzbekistan, 2020). Other provinces of the FV are Sughd in Tajikistan, making up nearly 45 percent of national GDP); Batken, Osh, and Jalalabad in Kyrgyzstan, making about 13 percent of national GDP (State Statistics Committee of the Republic of Tajikistan and Kyrgyzstan, 2017-2020).

While national governments and international development partners place significant attention on promoting socioeconomic development in the FV, most of these investments are national in scope, mostly infrastructure focused, and only to a limited extent aimed at promoting soft/economic connectivity and regional cooperation (especially at intraprovincial level). Among the three cross border countries in the FV, Uzbekistan's government has been allocating the most significant public investments (21 trillion Soms, as approved in 2018) to promote rural economic, infrastructure development and job creation in the FV as part of the Obod Qishloq (Prosperous Village) and Obodi Mahalla (Prosperous Neighborhood) programs (Government of Uzbekistan, 2021).

Among the development partners, the World Bank, ADB, UN, EBRD, and other bilateral donors provide development assistance and investments to support socioeconomic development, the rehabilitation of rural and physical infrastructure (roads, energy, water supply), job creation, livelihoods, and limited private sector development in the cross border regions of the FV. However, similar to the government programs, this assistance is country focused and largely infrastructure oriented with little consideration of soft infrastructure—such as digital, marketing, skills development, capacity building, sustainability, and institutions. Often, additionally, donor infrastructure investments lack practical benefits sharing mechanisms and insufficiently targeting local livelihoods and economic potential.

The recent liberal open market reforms in Uzbekistan initiated in 2017 resulted in the removal of existing barriers to trade and connectivity, and created unique opportunities to realize the regional economic potential both in the FV and across CA. The latest positive political developments and intensified regional dialog created a unique momentum of cooperation among the bordering regions

[1] Koparkar. (2019). Issues and dynamics in the Ferghana Valley, *Vivekanada Foundation*. Retrieved from https://www.vifindia.org/monograph/2019/april/08/issues-and-dynamics-of-the-ferghana-valley-regional-implications

of FV, including the Fergana province of Uzbekistan, Osh and Batken provinces of Kyrgyzstan, and the Sughd province of Tajikistan, which all recently signed a promising roadmap of socioeconomic cooperation.

While the economic potential and opportunities to spur regional growth through cross border investment, agricultural and industrial development and trade in the FV are enormous, the risk factors are significant and hold back the prospects of integration. The existing risks are caused by a legacy of multiple contested issues such as lack of border delineation and no mechanisms for the joint management of shared natural resources and infrastructure (land and water) amid environmental degradation and climate change. More specifically, various development agencies and international sources (UN, World Bank, UK FCDO) point to the presence of multidimensional factors of fragility and risk in the FV, which lies at the interconnection point of the bordering Central Asian States. These include, but are not limited to, a poorly delineated and contested border, insecurity and conflicts over shared and increasingly degraded natural resources (water and land) amid a high and growing population density, a lack of connectivity and infrastructure, economic isolation, and high levels of poverty causing massive migration as a result of lack of opportunities for youth. These factors created gaps between thriving and struggling subregions in CA, especially in agriculture oriented and densely populated FV. These risks cause continuous fragmentation, elevate the likelihood of conflict, and may eventually undermine regional growth and economic integration prospects in the FV.

The border problems and undivided common resources are coupled with specific barriers to trade and border crossing, especially manifest in the highly interconnected FV with its large number of border crossing points (BCPs). According to the key international benchmarks (World Bank, LPI and DB; ADB CAREC Regional Integration index) all bordering Central Asian countries in the FV rank poorly in terms of trade and logistical performance.

The existing barriers to trade, investment, and connectivity are negatively affecting trade in horticulture products, which otherwise has huge a comparative advantage and unrealized economy of scale to transform the region and develop joint integrated markets along the regional value chain (RVC). This would enable the export promotion of the unique regional organic horticulture products to the global market (based on the best international experience). Several studies (WB 2021, IFC 2019, ITC 2016, GIZ 2017) indicate that Kyrgyzstan, Tajikistan, and Uzbekistan have a comparative advantage in producing a wide range of horticulture products and developing value chains, especially in highly competitive (owing to the climatic conditions and developed skills) domestic horticulture.[2] This is especially the case for the FV thanks to its unique endowments of fertile irrigated land and climate. There is also a strong yet underutilized potential to explore the economy of scale by developing regionally competitive horticulture value chains, transforming the FV from a lagging fragmented region to a center of growth and investment. Finally, there are also unique opportunities to target the large export markets of Russia and China, where the demand for organic horticulture products remains consistently very strong.

Following continued overall progress in border delineation and aiming for shared resource/infrastructure management, a combination of measures to address the existing barriers to connectivity, trade, and investment is required to transform the FV from a poor, isolated rural region to the center of growth and prosperity in CA. The continuous liberalization of trade policy reforms, the harmonization of border and customs administration and procedures, and logistical improvements, including trade and transit infrastructure, can yield significant benefits in trade promotion and investment attractiveness. Capitalizing on the opportunities from recently approved economic and transport corridors as supported by various IFIs and bilateral parties (ADB, WB, China, and Russia), the

[2] World Bank. (2019). China 2030—Opportunities for Central Asian Agriculture. Retrieved from https://openknowledge.worldbank.org/handle/10986/33115

local stakeholders in the FV (government, private sector, and SMEs) should be in a better position to promote the integration of specific markets, develop joint manufacturing hubs along entire value chains (such as horticulture), and explore other forms of mutually attractive cross border economic cooperation reinforcing the competitiveness of the regional economy (tourism and services). Continuous strong political will from the central governments to address region specific issues, and active partnership between regional government and private sector associations are critical to implement the proposed recommendations.

Specific recommendations include the following proposed policy measures.

Government (central and local):

a) Intensify policy dialog at province level: setting up permanent regional cooperation platform, coordinating cross border provinces at regional government level, developing a roadmap to address the contested issues, and developing mechanisms for shared infrastructure management (irrigation, roads, land, border control, ease of transit).
b) Localize existing national free trade agreements based on signed documents at both top and intra-provincial level among bordering countries, allowing the elimination of remaining barriers (trade and non-trade), and boosting transit trade flows and exports of transport and storage services within the FV.
c) Increase collaboration in transport and trade facilitation at the level of customs and border authorities in all countries concerned.
d) Enforce free and unrestricted cross border regime through constant monitoring, lowering the barriers to cross border trade and investment flows within the FV region; this can help to develop cost efficient and reliable regional supply chains for essential goods such as food products, to lower prices, and to enhance the competitiveness of local products.
e) Operationalize the roadmap of cooperation signed between the FV provinces at regional governor level in April 2021; this includes developing feasibility and investment plans for joint regional manufacturing hubs (based on Uzbekistan modern technologies and investments) and boosting exports of locally manufactured goods outside the FV (China, Russia, and Kazakhstan).
f) Develop the pipeline of joint projects in regional horticulture value chains (as part of the roadmap of cooperation in the FV provinces) and secure support from central government.

International development agencies:

a) Gradually shift from the physical infrastructure focused projects (such as roads) to the whole of the economic corridor approach in the FV area. This should increasingly involve soft elements (capacity, sustainable and locally managed O&M arrangements, job creation, and livelihoods), and engage private sector and local communities as partners in project implementation.
b) Localize country development assistance to the FV provinces (as part of the development partner strategies and in consultation with central government).
c) Support local province level development and investment plans for regional cooperation, and help to identify the menu of potential bankable investment projects and areas of intervention.
d) Increase assistance to cross border economic and infrastructure initiatives including regional mechanisms of project implementation.
e) Utilize specific opportunities from the recently approved regional initiative (such as ADB economic corridors, WB Central Asia Roads Program in all CA countries, CASA-1000 Project), which directly affect the FV to localize the project implementation, ensure close involvement and benefits sharing with the local population and SMEs, and explore other potential

spillovers to maximize the local benefits for regional economic development and cross border cooperation.

f) Under the trade, transit, and connectivity portfolio, more actively support soft elements of customs and borders administration, enhance institutional performance, target compliance and enforcement measures, complementary improvements in trade logistics and trade facilitation and efficiency at border crossings as part of an overall enhanced institutional support to border and customs administration (such as, implementing digital non-intrusive tools of border and customs control) to minimize non-trade barriers (NTBs) and exposure risks of informal payments for citizens and businesses during border crossing.
g) For the private sector focused IFIs (EBRD, IFC, EIB) more actively support regional cross border proposals involving PPP and private sector implemented mechanisms, partnerships among private sector and business associations, and horticulture producers from all CA countries in the FV.

Private sector representatives:

a) Set up joint business councils, regional business and private sector associations with the secretariat among SMEs and entrepreneurs from cross border provinces of the FV (sectoral and overall) to ensure regular interactions, exchange of marketing and other information, showcasing opportunities to develop joint investment projects and value chains; discuss pending issues and barriers to trade and cooperation, border crossing, regulatory and NTBs; prepare joint investment proposals; and attract investments.
b) Develop the portfolio of viable investment projects around RVCs and submit them to the interstate investment funds, and international and regional financial institutions (such as IFC, EBRD, ADB, and EIB).
c) Enhance trade and regional competitiveness of compatible goods and value chains in the sectors where trade and compatible integrated manufacturing/processing could be further supported, largely based on the private sector and SME initiatives.
d) Develop and market regional agro-processing branded products both within and outside the region (such as regional and global expo).

Introduction

The Fergana Valley (FV) is a high risk and high opportunity area, which deserves serious in-depth research and analysis.

The valley's central location at the intersection of the interstate borders of Uzbekistan, Tajikistan, and Kyrgyzstan, along with the unique resource endowments of land and water, relatively better developed infrastructure, agriculture, as well as skillful labor force, makes it an attractive hotspot not only to drive economic development through regional integration, but also to create positive spillover effects for enhanced prosperity in CA. Moreover, the people of the FV are one of its greatest assets as well. The area is densely populated, largely with a highly entrepreneurial and skillful native Uzbek population, and has powerful potential to develop the number of SMEs/private sector driven, dynamic, and competitive cross border agrarian, tourism, and service-oriented value chains.

However, the FV also bears a complex legacy of decades-long tensions around border delineation and the division of shared natural resources and infrastructure, which are elevated by a high level of rural poverty, the pandemic, climate change, and environmental degradation.

This policy research paper seeks to look opportunistically at the FV and make a case for the positive transformation of a largely agriculture oriented, isolated, and fragmented region into the center of regional growth and prosperity for CA. The current momentum of open trade and market reforms in Uzbekistan, whose provinces represent the heart of the FV, is highly conducive to materializing this optimistic scenario.

In addition to positive geopolitical developments conducive to open trade and socioeconomic integration, other critical factors and barriers need to be addressed for the favorable transformations to take place. These include but are not limited to various non-trade barriers (NTBs); logistical inefficiencies; lack and inadequacy of economic, trade, and transport/transit infrastructure; and degraded manufacturing and resource processing capacity.

The main objectives of the proposed policy research paper are the following:

- To better understand the tradeoff between the existing potential and opportunities for regional integration *vis a vis* prevailing risks, obstacles, and barriers to economic development causing fragmentation, suboptimal trade, and investment flows in the challenging and high-risk context of the FV.
- To chart the roadmap of locally relevant and feasible political and economic recommendations (drawing on the best international experience) of how to transform the region into an important hub for growth and connectivity for the CA region (by exploring the economic and trade potential of the specific cross border value chains as a case study).
- Contribute to the expanded analytical foundation and identify entry points to inform potential development partners and private sector investors to promote regional cooperation and integration in the FV and CA.

The central hypothesis to be tested through the research is whether recently adopted open market reforms in centrally located Uzbekistan can trigger more robust regional integration, increased cross border trade, and investments across the FV. The primary assumption for such hypothesis is the progressive removal of existing barriers to trade, transit, and investments. More specifically, and as part of this research, the case of horticulture will be considered in terms of its potential to develop regionally competitive value chains transforming the FV from a lagging fragmented region to a center of growth and investments. Finally, a relevant comparative analysis of successful approaches to

address barriers and promote regional cross border integration from South Asia (India–Nepal–Bangladesh) will be undertaken to draw on the lessons learned and possible solutions for the FV.

The conducted policy research is based on the following methodology:

- Quantitative analysis of the available statistical information (official socioeconomic data, both national and regional, for the respective provinces of the FV); international and regional benchmarking indicators for the cross-border countries of focus especially those pertaining to trade, investment, and business regulation (such as WB, ADB, and EBRD).
- Desk review of existing literature including: (1) analysis of broader development and risk context; (2) the most relevant literature on recent dynamics and underlying issues in the FV, and a mapping of the typology of specific value chains identified for case studies of FV trends/risks along the identified target geographic areas, including in agro-processing.
- Key informant interviews (KIIs) with selected local experts in trade and investment, regional integration in the FV (from both public and private sector).

The paper consists of the following chapters:

Chapter I sets the stage for more detailed analysis by framing the geographic area of research, identifying the overall economic potential of the FV (compare to other parts of the countries concerned) to serve as a driver of economic growth and regional economic integration in the region.
Chapter II looks at economic potential and opportunities for a more integrated and interconnected FV from Uzbekistan (also in the light of the latest open market reforms and regional integration initiatives), and which provinces in the target area represent the largest and most developed parts of the FV.

Chapter III provides a summary of significant risk factors in the FV arising as the legacy of poor border demarcation in the ethnically diverse and highly interconnected region; current tensions around the use of shared natural resources and shared infrastructure; and environmental degradation amid high levels of poverty and constrained livelihoods.

Chapter IV looks deeper into the major barriers and constraints for trade and investment, especially including an analysis of NTBs, weak logistical performance, time consuming and high-cost border crossing, poor performance in terms of customs and border administration. The chapter is informed by data from both local and international sources.

Chapter V attempts to uncover specific opportunities to drive economic development and prosperity in the FV through the development of regionally integrated agriculture value chains. A specific case study of horticulture value chains (an area where the FV has unique potential and strong comparative advantages) is considered.

Chapter VI summarizes the best international experience from the northeast region of India, Nepal, Bangladesh, and the Lake Chad area in Africa, where regional economic integration helped promote prosperity and drive economic competitiveness of all the countries involved.

The last chapter provides an overview of the main findings and proposed recommendations.

I. Identifying the Potential: the Role and Significance of the Fergana Valley to Drive Regional Growth

The FV is considered by many to be the historical heart of Central Asia (CA). It has approximately 14 million inhabitants, occupying only 0.5 percent of CA, which constitutes over 20 percent of the total population of CA. The FV is approximately 300 km long and 170 km wide, making it one of the most densely populated parts of CA.[3]

Map 1: Central Asia, Fergana Valley[4]

Source: Rashmini Koprakar, 2019

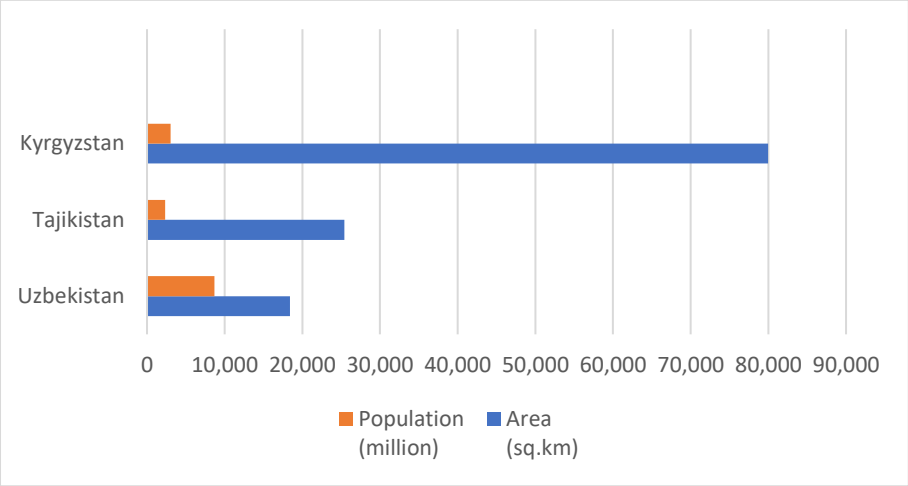
Geographically the FV is split over Uzbekistan, Tajikistan, and Kyrgyzstan, with the highest share of territories in Kyrgyzstan and Tajikistan, and the highest population density in Uzbekistan (Startfor, 2013)**.** Within its modern administrative borders, formed after the breakup of the Former Soviet Union in 1991, the FV includes 40 districts in three of Uzbekistan's eastern provinces (Andijan, Namangan, and Fergana) with a total population of 8.7 million; 15 districts in the northern Sughd province of Tajikistan with a total population of about 2.6 million; and 18 districts in three southern provinces of Kyrgyzstan (Batken, Osh, and Jalalabad) with a total population of about 3.1 million. Ethnically, however, FV is largely populated with Uzbeks, which constitute the majority of its total population (ReliefWeb, 2005).[5]

[3] Kopakar, Rashmini. (2019). Issues and Dynamics of the Fergana Valley: Regional Implications, *Vivekananda International Foundation, 2019*, Retrieved from https://www.vifindia.org/monograph/2019/april/08/issues-and-dynamics-of-the-fergana-valley-regional-implications

[4] World Bank, 2018

[5] Relief Web, Five Facts about the Fergana Valley. (2005). Retrieved from https://reliefweb.int/report/uzbekistan/five-facts-about-uzbekistans-fergana-valley

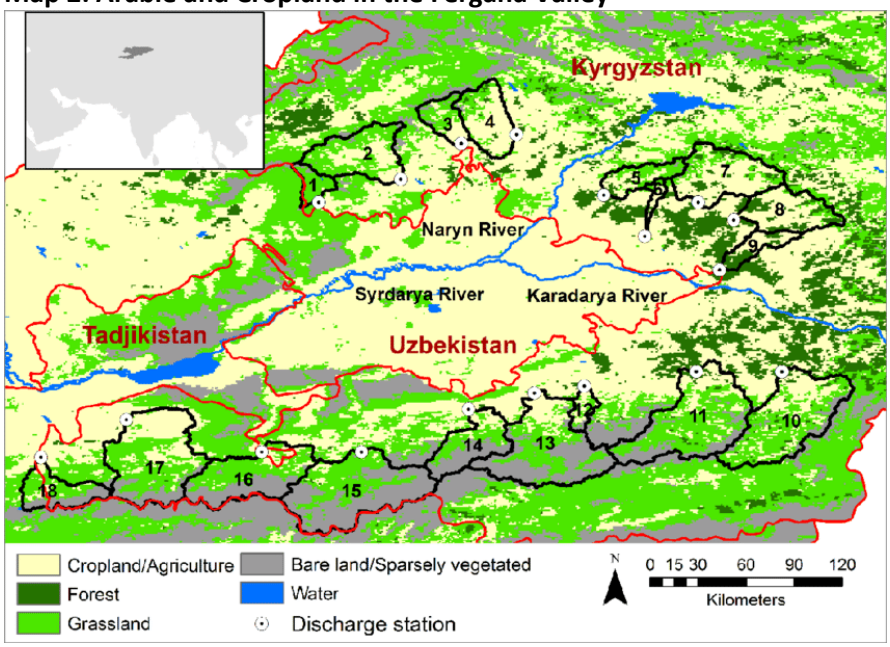
Figure 1: Fergana Valley—Territory and Population



Source: State Statistics Committee, Uzbekistan, Tajikistan, Kyrgyzstan, 2015-2020

The FV's strategic location, productive agricultural lands, relatively high levels of industrial development, and population density endow it with significant economic potential to promote regional growth and integration. Centrally located at the intersection of trade, economic, and transport corridors, the FV bears huge comparative advantages, resources, and potential to drive economic development, spur regional connectivity, integration, and cooperation through unrestricted trade and investments turning the region into an important horsepower for growth for all Central Asian countries. The valley includes some of Uzbekistan, Tajikistan, and Kyrgyzstan's most fertile agricultural land (including the highest concentration of arable land (see Map 2), but also has a relatively high level of industrial development compared to other parts of the countries involved.

Map 2: Arable and Cropland in the Fergana Valley

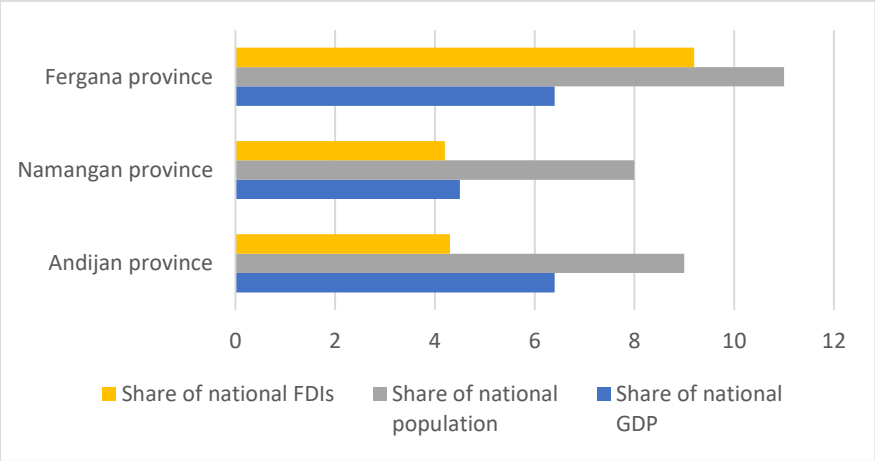


Source: Lulia Radchenko, 2016

The strongest economic potential of the FV is concentrated in the Uzbekistan provinces of Andijan, Fergana, and Namangan, which have relatively more competitive and developed manufacturing, agriculture, entrepreneurial, and human resource capacity. The FV represents a unique part of Uzbekistan characterized by high population density and relatively stronger economic development. The area includes some of Uzbekistan's most developed provinces both in terms of

industrial manufacturing and particularly agricultural potential compared to other parts of Uzbekistan. All three provinces of Uzbekistan's part of the FV (Andijan, Namangan, and Fergana) make up about 20 percent of national GDP and nearly 40 percent of total agriculture output (State Statistics Committee of the Republic of Uzbekistan, 2020). The three Uzbekistan FV provinces (out of 12 in the country in total) constitute almost 30 percent of Uzbekistan's population and serve as a destination for nearly 18 percent of the total inward FDIs (World Bank, 2021). Agriculture, food and processing, textiles, construction materials, as well as automotive production are the key economic and industrial sectors of Uzbekistan's part of the FV. Agriculture and agro-processing have seen especially high rates of growth over recent years since 2015 averaging 18 percent to 27 percent per annum, making them the largest contributor to regional growth (around 46 percent of the total regional output in 2020).

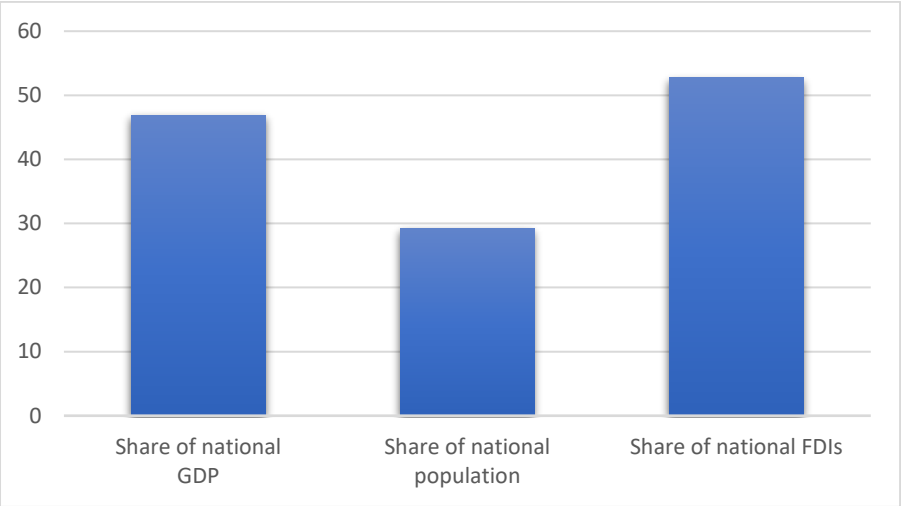
Figure 2: Key Economic Indicators of Uzbekistan's Fergana Valley Regions (Percent)



Source: State Statistics Committee, Republic of Uzbekistan, 2020

Likewise, Sughd province of Tajikistan, part of the FV, is an important region of the country, having strong economic and industrial capacity; it contributes extensively to economic growth, and is strategically well positioned to allow Tajikistan's access to regional markets, and to stimulate trade and exports with neighboring states. According to national statistics, the province has 29 percent of Tajikistan's population and 32 percent of its arable land. Sughd province produces 48 percent of the country's GDP. The average recorded growth rate in the region has been 10 percent during 2008 to 2020. Mining, textiles, and agro-processing are the major economic sectors of the province with the share of both primary and processed agriculture production/exports increasing rapidly over recent years and creating potentially important regional hubs for locally produced crops (such as dried apricots and tomatoes). Finally, Tajikistan's Sughd province is well known for its relatively developed private sector and entrepreneurial capacity, with the region being a recipient of more than 50 percent of inward national FDIs.

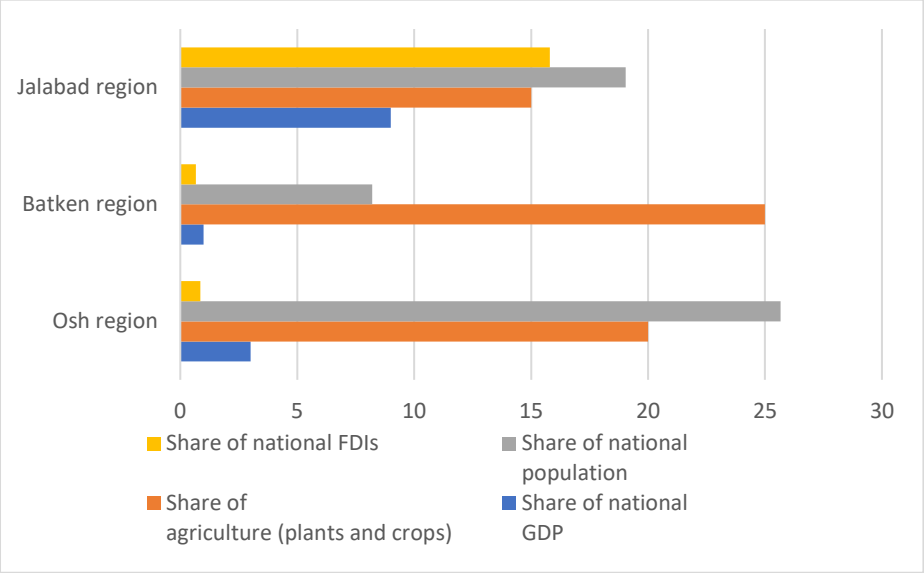
Figure 3: Key Economic Indicators—Sughd, Tajikistan (Percent)



Source: State Statistics Committee, Republic of Tajikistan, 2017-2020

While the FV's provinces in the south of the Kyrgyz Republic are relatively less developed in terms of overall output and industrial manufacturing, they are an essential driver of the country's agricultural production. The cumulative share of the Osh, Jalalabad, and Batken provinces in national GDP constitute only 13 percent, making these provinces the center of agriculture production, contributing 37.5 percent of national agricultural output, including 60 percent of total crops and plants (including horticulture) production.

Figure 4: Key Economic Indicators—Osh, Jalalabad, Batken Regions, Kyrgyzstan (Percent)



Source: State Statistics Committee, Kyrgyzstan, 2020

All in all, FV's geographic location and comparative advantage in agribusiness, agrifood, textiles, and small-scale manufacturing show high potential to drive regional cooperation, trade, and economic growth. The FV has developed a distinct domestic and international reputation for quality production in agribusiness/agrifood, textile production, and traditional crafts. The region's horticultural products, silk and weaving materials, and traditional ceramics are sold within Uzbekistan and increasingly in the CA region and beyond. For example, Uzbekistan's country private sector diagnostics (IFC, 2019) identified sectors with strong potential for growth and showed the financial industry, information and communication technology (ICT) and ICT-enabled services, transport, chemicals and fertilizers, tourism, retail chains, food production, horticulture, and agroprocessing all have the potential to help propel the Uzbek economy toward much higher economic growth rates and support regional growth assuming good progress in cross border trade and integration. While chemicals and fertilizers require significant economies of scale, all other sectors represent opportunities for regional growth especially in agriculture and agroprocessing.

Governments and international stakeholders place significant attention and allocate investments to promote the socioeconomic development of the FV. Among the three cross border countries in the valley, Uzbekistan's government has been allocating the most significant public investments to promote rural economic, infrastructure development and job creation in the FV as part of Obod Qishloq and Obod Mahalla programs (2018) totaling 21 trillion Soms. Tajikistan and Kyrgyzstan's provinces of the FV have the approved regional development programs for socioeconomic development of the respective provinces (Sughd regional socioeconomic development program, 2016-2020[6]; Batken, Jalalabad, and Osh regional economic development programs[7]). However, government resources are much more limited and insufficient to develop cross border regions especially in poorer Tajikistan and Kyrgyzstan.

[6] МЭРТ РТ (2020). Программа социально экономического развития Согдийской области, retrieved from https://medt.tj/images/news/2020/14.03.2020-1.pdf

[7] Программа развития Баткенской и Ошской области Кыргызской республики (2016), retrieved from http://oshcity.kg/index.php/ru/kmaterialdar-ru/item/2810-v-oshe-v-ramkakh-proekta-regionalnoe-ekonomicheskoe-razvitie-oshskoj-oblasti-i-goroda-osh-zaplanirovany-raboty-po-razvitiyu-turizma-i-vosstanovleniyu-gorodskoj-infrastruktury ; https://www.gov.kg/ru/post/s/20209-zheishbek-asankulov-batken-oblastyn-nktr-programmasy-zhergilikt-turgundardyn-pikirin-eske-aluu-menen-ishtelip-chygat

Among the development partners, the World Bank, ADB, and UN provide the most significant investments to support socioeconomic development, rehabilitation of physical infrastructure (roads, energy), job creation, and private sector development in the cross-border regions of the FV. However, most of the investments (loans and grants) are being decided at the central level, with projects largely implemented at the country level and barely resulting in setting up regional cooperation and implementation arrangements. Also, the largest bulk of investments by development partners is being allocated to physical infrastructure rehabilitation (roads, transmission lines, irrigation and water infrastructure, social infrastructure) often with inadequate consideration of regional institutional arrangements of conflict sensitive shared management: maintenance and operations; cross border, trade and customs policies; citizens engagement; and benefit sharing arrangements from the large infrastructure projects (such as CAREC transport corridors). For more detailed analysis see Annex 2 (stakeholder mapping of government and international development partner activities in the Fergana Valley).

II. Opportunities from Uzbekistan's Reforms to Spur Regional Integration, Open Trade, and Investment

Uzbekistan has the strongest economic potential and a unique location among other Central Asian countries to promote regional integration. Centrally located and bordering all other countries in the region including Afghanistan, Uzbekistan's political and development trajectory is critical to ensure regional security and economic connectivity, to enable free trade and transit, and to allow the effective use of the region's shared natural resource of water and energy.

Despite its potential Uzbekistan was not able to transform into regional leader because of the previously implemented isolationist and domestically oriented model of economic development pursued during 1994 to 2016. In pursuit of an officially adopted import substitution policy, the Uzbekistan Government imposed a high level of tariff protection (averaging 20 percent to 40 percent) and non-tariff barriers to encourage domestic producers, which led to a loss of international competitiveness and severe restrictions for access to markets and transit for Uzbekistan's neighbors, Tajikistan and Kyrgyzstan (ADB, 2005; World Bank, 2014). According to the World Bank (2014),[8] cumulative losses from the disintegration of the unified energy system since 2009 for all countries involved amounted to around US$2 billion. Since the late 1990s and early 2000s the Government of Uzbekistan (GoU) has introduced and maintained distortive foreign exchange and trade protection policies to protect emerging domestic manufacturing such as automotive and textile production. These controls were designed to support the industrial and import substitution strategy and to conserve foreign exchange. Significant restrictive measures targeting cross border trade have been also implemented, resulting in massive distortions and harm to regional economic and trade activity in cross border areas. This restrictive trade regime has impeded private sector involvement in foreign trade (ADB, 2005).[9]

Under the new political leadership of President Mirziyoyev, the GoU launched ambitious reforms in 2017, with the intention of transforming the economy, society, and the government, as well as opening up incentives for regional cooperation. Uzbekistan economic transformations were

[8] World Bank. (2014). World Bank Key Issues for Consideration on the Proposed Rogun Hydropower Project, retrieved from https://www.worldbank.org/content/dam/Worldbank/document/eca/central-asia/World%20Bank%20Note%20-%20Key%20Issues%20for%20Consideration%20on%20Proposed%20Rogun%20Hydropower%20Project_eng.pdf

[9] ADB. (2005). Private Sector Assessment of Uzbekistan. Retrieved from https://www.adb.org/sites/default/files/institutional-document/32223/uzb-psa.pdf

welcomed enthusiastically by a wide range of international experts and IFIs. 'The impressive reforms have raised expectations of a more vibrant private sector and higher incomes and opportunities for Uzbekistan's citizens. As the most populous and diversified economy in Central Asia, this program of trade and domestic economic liberalization holds manifold consequences and opportunities for the region. As Uzbekistan frees up connectivity and trade, Central Asia can reinvigorate exports and investment in the region and beyond, radically improving conditions for Central Asia's farmers, manufacturers, and traders' (Burunciuc et al, 2019).

As per IMF assessment, **Uzbekistan has taken the lead on improving regional cooperation.** The previous state led growth model sought to minimize regional trade and infrastructure interdependencies. Given Uzbekistan's central geographic location and large population size, this stance cast a pall over regional trade and cooperation. 'Since the start of reforms, significant progress has already been made in boosting regional trade and promoting regional integration' (IMF, 2019). This included the range of specific measures in liberalizing trade and investment policies. Specifically, the State Program for Implementation of the National Action Strategy on Five Priority Development Areas 2017-2021, adopted by the GoU,[10] includes the range of measures aimed to: liberalize, diversify, and simplify external trade, transit, and export activities; remove and reduce tariffs and other protectionist measures (non-tariff barriers); gradually implement a trade liberalization agenda; seek WTO accession and achieve trade agreements with other countries to enhance Uzbekistan's exports prospects; design and implement a phased plan to increase the country's attractiveness to FDI; and define a clear and uniform policy for attracting FDI, including the development of an export oriented sector.

Recent open market and social reforms in Uzbekistan—including limited decentralization, opening of borders, and removal of trade and nontrade barriers—create unique opportunities for a more peaceful, prosperous, and better integrated FV. This could be done through the invigoration of dialog to resolve long-frozen border crossings, water disputes, electricity disruptions, and contentious land demarcation issues dating to the 1990s (World Bank, Regional Engagement Framework for Central Asia, 2019). There is also a unique opportunity to resolve longstanding conflicts over use of common resources in the FV; those serving an important long-term source of resilience and promoter of trade and integration, including significant progress to date in solving highly sensitive problems such as border delineations with Kyrgyzstan or sharing of water resources (Swiss Development Cooperation, 2017).

After the years of regional tensions, the geopolitics of regional energy and water cooperation is rapidly improving as a result of the more cooperative approach taken by the new Uzbek government; this is creating promising avenues for enhanced water energy security through cooperative institutional arrangements and a common energy market, it is also creating good prospects to trickle down to the local level of cross border regions in the FV. Prospects for the renewal of regional electricity markets are brightening. The relaxation of regional tensions in CA has removed a critical constraint, increased opportunities for cross border energy trade, and improved prospects for the development of a regional electricity market in CA. Uzbekistan, for example, resumed the gas supply to Tajikistan in 2018 (Eurasianet, 2018), dropped decade-long objections to the development of hydropower plants in neighboring Tajikistan and Kyrgyzstan, and resumed operation of the Central Asia Power System (CAPS), which provided the mutually beneficial interchange of thermal and hydroelectric power with neighboring states, and created prospects for

[10] Government of Uzbekistan. (2017). The State Program for Implementation of the National Action Strategy on Five Priority Development Areas 2017-2021 in the Year of Active Investments and Social Development, retrieved from https://president.uz/en/pages/view/strategy?menu_id=144

the implementation of jointly managed water–energy infrastructure projects (Reuters, 2018).[11] The implementation of these projects, as well as others[12] in preparation, will increase export revenues and strengthen energy security. The improved geopolitics of CA water energy cooperation is likely to trickle down to a subnational, local level of the bordering communities in the FV as well as through the policy framework for reduced conflicts, and more trusted and collaborative arrangements for the use of shared water resources and irrigation infrastructure along the FV (WB, 2019).

As a result of the latest meetings among high level delegations led by the presidents and government and business leaders of Uzbekistan, Tajikistan, and Kyrgyzstan since 2017, the majority of the existing trade, tariff, transit, and border crossing barriers have been partially removed. This was possible thanks to the political will and strong leadership of Uzbekistan's new President Shavkat Mirziyoyev, thereby reinvigorating regional cooperation in CA. It included agreements to simplify and liberalize border crossing, creating a foundation to promote small scale cross border trade and investment; and agreements to intensify interstate and regional level contacts, create investment funds, and intensify cultural exchange, and intergovernment and investment contacts between the neighboring countries. For example, during the latest visit of President Mirziyoyev to Tajikistan in June 2021, an agreement was signed to create joint investment fund of US$100 million to finance the cross border and mutual investment projects.

In parallel with promoting regional cooperation in Central Asia, Uzbekistan is increasingly leading wider connectivity and security initiatives in Eurasia and Southwest Asia. A number of high-level international platforms and conferences have been organized recently under Uzbekistan's leadership to promote trade, commerce, investments, and connectivity. These initiatives enhance Uzbekistan's image as a leader in regional cooperation, as well as providing unique opportunities to promote connectivity and attract significant investments to the region (Imanova, 2021).

The progress towards opening up regional cooperation on a central level has resulted in intensified cooperation among the bordering regions in the FV, creating unique opportunities for cross border economic initiatives and investment into joint RVCs through increasing trade complementarity and common markets (such as agriculture and tourism). Most recently, memorandums of cooperation between the regions of the three neighboring republics—Sughd province in Tajikistan, Fergana province in Uzbekistan, and Batken province in Kyrgyzstan—were signed following the regional business forum 'Integration of border regions is a guarantee of development,' on 22 April 2021 in Fergana, Uzbekistan (Asia Plus, 2021).

III. Analysis of the Major Risk Factors in the Fergana Valley

While the economic potential and opportunities to promote regional growth through cross border investment, agricultural and industrial development, and trade in the FV are enormous, the legacy of multiple contested issues creates risks that negatively affect the prospects for economic integration, cause fragmentation, and need to be dealt with to allow the optimistic scenario to materialize.

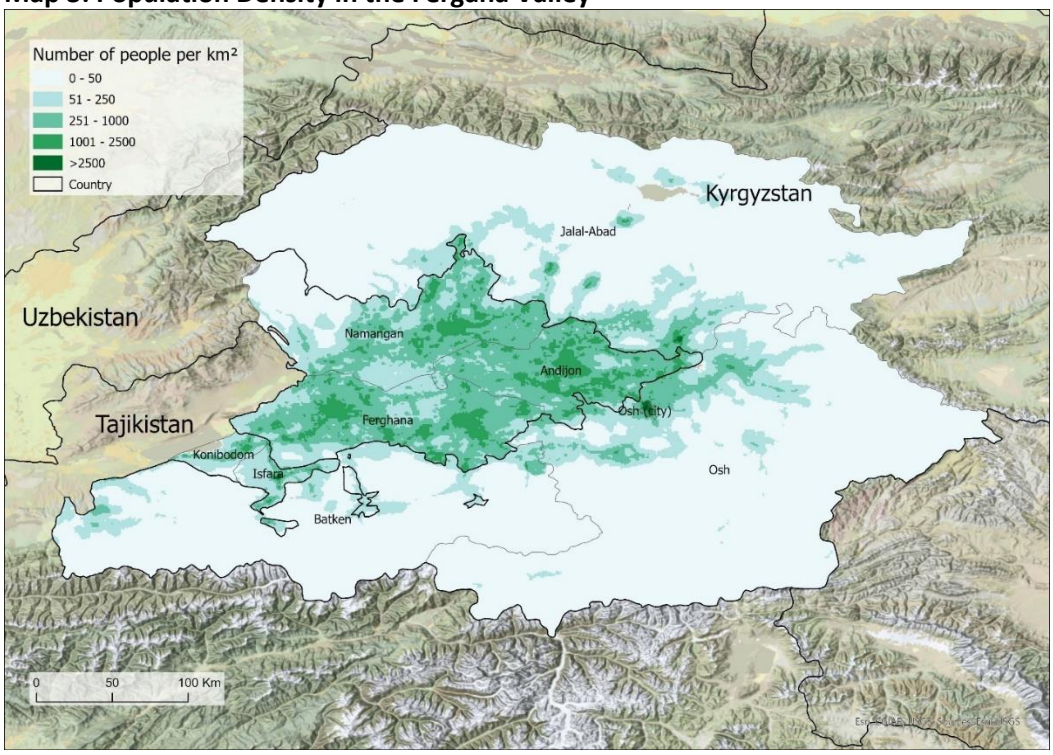
Development agencies and international sources point out multidimensional factors of fragility and risk in the Fergana Valley (UN, World Bank, UK FCDO, 2021). These include, but are not limited to: a poorly delineated and contested border; insecurity and conflict over shared and increasingly degraded natural resources (water and land) amid a high and growing population density—1,600 per square

[11] Reuters (2018). Uzbekistan drops objections to giant Tajik hydro project, retrieved from https://www.reuters.com/article/tajikistan-uzbekistan-hydro/uzbekistan-drops-objections-to-giant-tajik-hydro-project-idUSL5N1QR4CD

[12] Including the Turkmenistan–Uzbekistan–Tajikistan–Afghanistan–Pakistan transmission line (TUTAP) and the Turkmenistan–Afghanistan–Pakistan–India pipeline project (TAPI)

mile in the FV vs. 40 per square mile in CA (Startfor, 2013); lack of connectivity and infrastructure; economic isolation; and high levels of poverty causing mass migration as a result of lack of opportunities for youth. These factors created gaps between the thriving and struggling subregions in CA which are especially manifest in the largely agriculture oriented and densely populated FV.

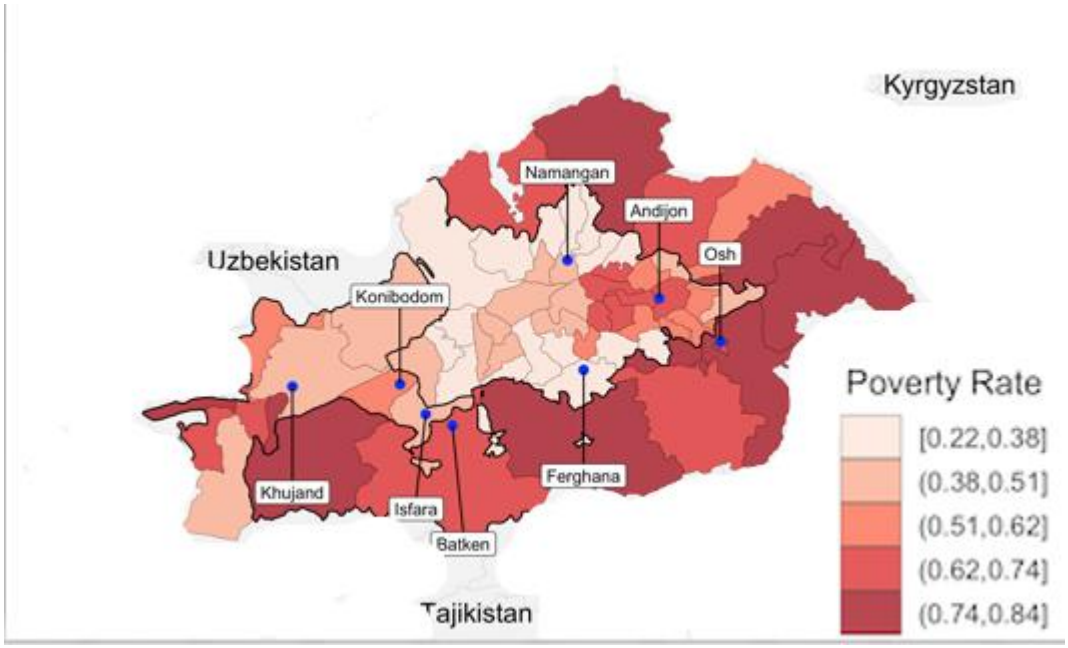
Map 3: Population Density in the Fergana Valley



Source: World Bank, 2021

The level of poverty is high and above average in the FV, which indicates the lack of economic opportunity and stimulates mass labor migration of the local population. While the Uzbekistan part of the FV is relatively prosperous (but still below the national average), both Tajikistan's Sughd province and especially the three southern provinces of Kyrgyzstan (Batken, Jalalabad, and Osh) have the highest levels of poverty in the country (IOM, 2019). As Map 4 indicates, nearly all districts in the Kyrgyzstan and Tajikistan portions of the FV have high poverty rates ranging from 38 percent to more than 50 percent. Amid these high levels of poverty, labor migration serves as the main coping strategy for the local population, which makes the areas of the FV highly dependent on remittances ranging from 11 percent in Uzbekistan up to 28 percent to 29 percent in Tajikistan and Kyrgyzstan (World Bank, 2020).

Map 4: Poverty Rate (Percentage of Population living below $5.5/day)



Source: Listening to Tajikistan, Citizens of Uzbekistan and Kyrgyzstan, World Bank, Poverty Analysis, 2019-2020

The existing economic and social vulnerabilities are now being exacerbated by the impact of the COVID-19 pandemic, which are especially manifest in the FV owing to the proximity of borders, currently closed or restricted, and/or other additional imposed restrictions on free trade and the movement of people. As is evident from international experience in Africa (World Bank, 2012), more restrictive border crossing regimes—caused by the pandemic or insecurity in the context of weak enforcement capacity and poor border/customs management—could give rise to discretionary treatment and corruption, which usually has a negative effect on the movement of local small-scale traders and residents. Additional stresses for the local population are created by travel restrictions and declining remittances which increase poverty.

As a result of the many contested issues—ethnic and territorial tensions; localized conflicts around access to water, grazing, and irrigated lands; infrastructure, roads, and markets—are common across the FV. Since the dissolution of the Soviet Union in 1991, at least 30 conflicts were registered in CA,[13] most of which occurred within the highly contested FV. The unresolved issue of border delineation and demarcation between Kyrgyzstan and Tajikistan continues to lead to violent border incidents and to spark hostilities between the two countries. While the situation along the Kyrgyz-Uzbek border is calm, with 85 percent of the 1,378 km long border having been agreed upon, residents of the affected areas still need to be better informed about border agreements. Additionally, CA is also home to numerous enclaves across the FV which have been inherited as a result of poor border delineation since the former Soviet Union; tensions occasionally flare, especially in and around the largest enclaves of Tajik governed Chorkuh and Vorukh, and Uzbek governed Sokh and Shakhimardan (an Uzbek enclave within Kyrgyzstan). The lack of delineated borders leads to mutually exclusive claims over ownership of territory. Increased securitization intensifies localized conflicts over natural resources and the right of passage.

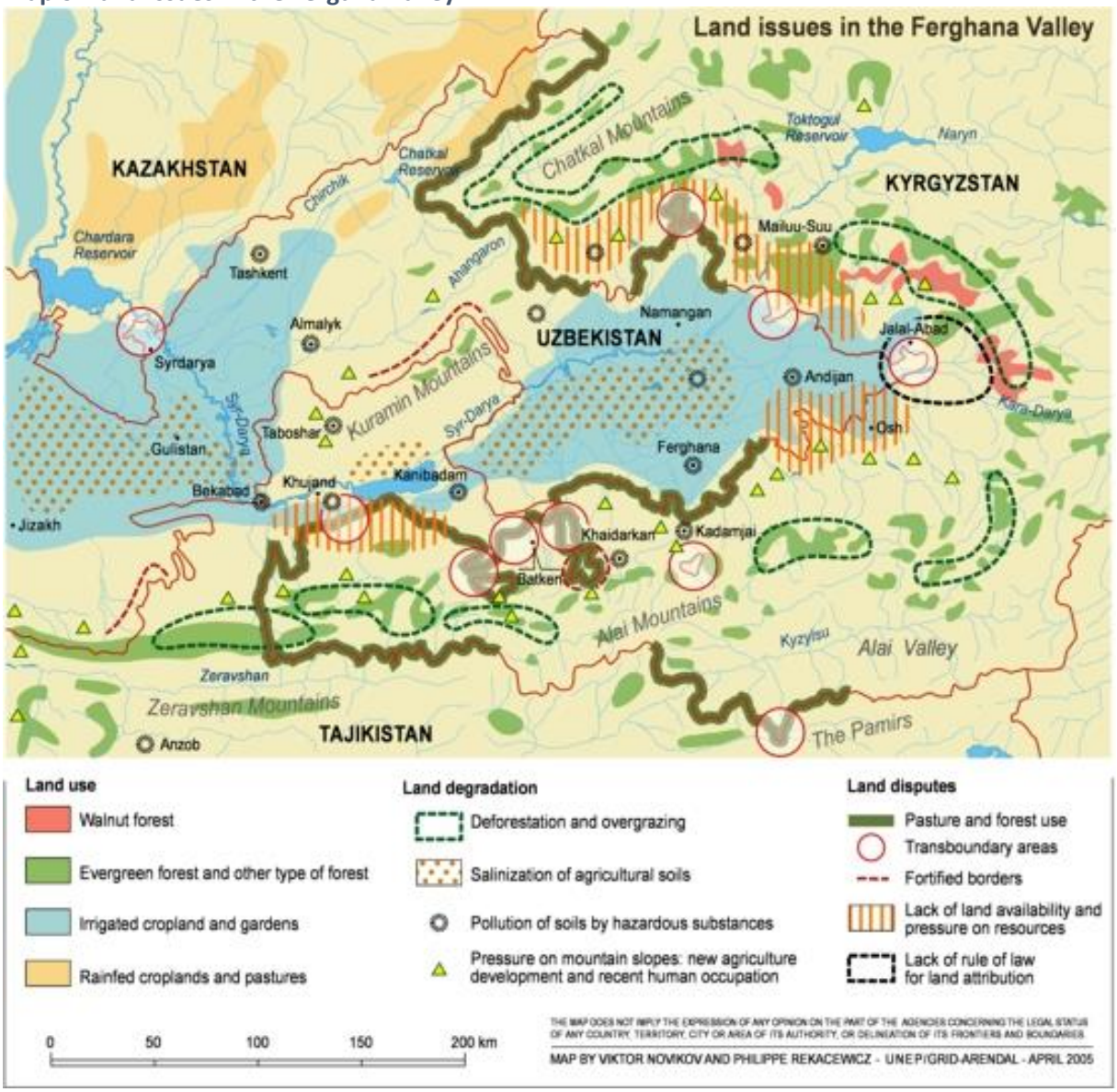
[13] ACLED Oxus Society, Central Asia Protest Tracker, retrieved from https://oxussociety.org/viz/protest-tracker/

Map 5: Enclaves in the Fergana Valley

Source: OSCE Academy, 2018

The region is also vulnerable, both environmentally and climatically; this induces a vicious cycle of land degradation, water scarcity, pollution and sedimentation, and increased natural disasters, which could further exacerbate existing tensions around shared natural resources such as land and water in the FV. In the long term, the accelerated dynamics and negative implications of climate change, coupled with demographic growth amid weak socioeconomic development indicators, will be among the main factors that determine peace and prosperity in CA (World Bank, 2021). The intensified degradation of arable land particularly affects livelihoods in the poorest communities in rural areas. Scarcity of water and pasture can lead to local disputes and small scale (cross border) conflicts over the use of a diminishing and scarce pool of productive resources. Regionally, land degradation, soil erosion, and water extraction and sedimentation in upstream countries like Kyrgyzstan or Tajikistan disrupt river connectivity and pose problems of water supply and quality in downstream areas (see Map 6). Furthermore, the current intensified pace of land degradation can destroy infrastructure and disrupt connectivity, trade, and value chains in the region (World Bank, Regional Engagement Framework for Central Asia, 2019).

Map 6: Land Issues in the Fergana Valley

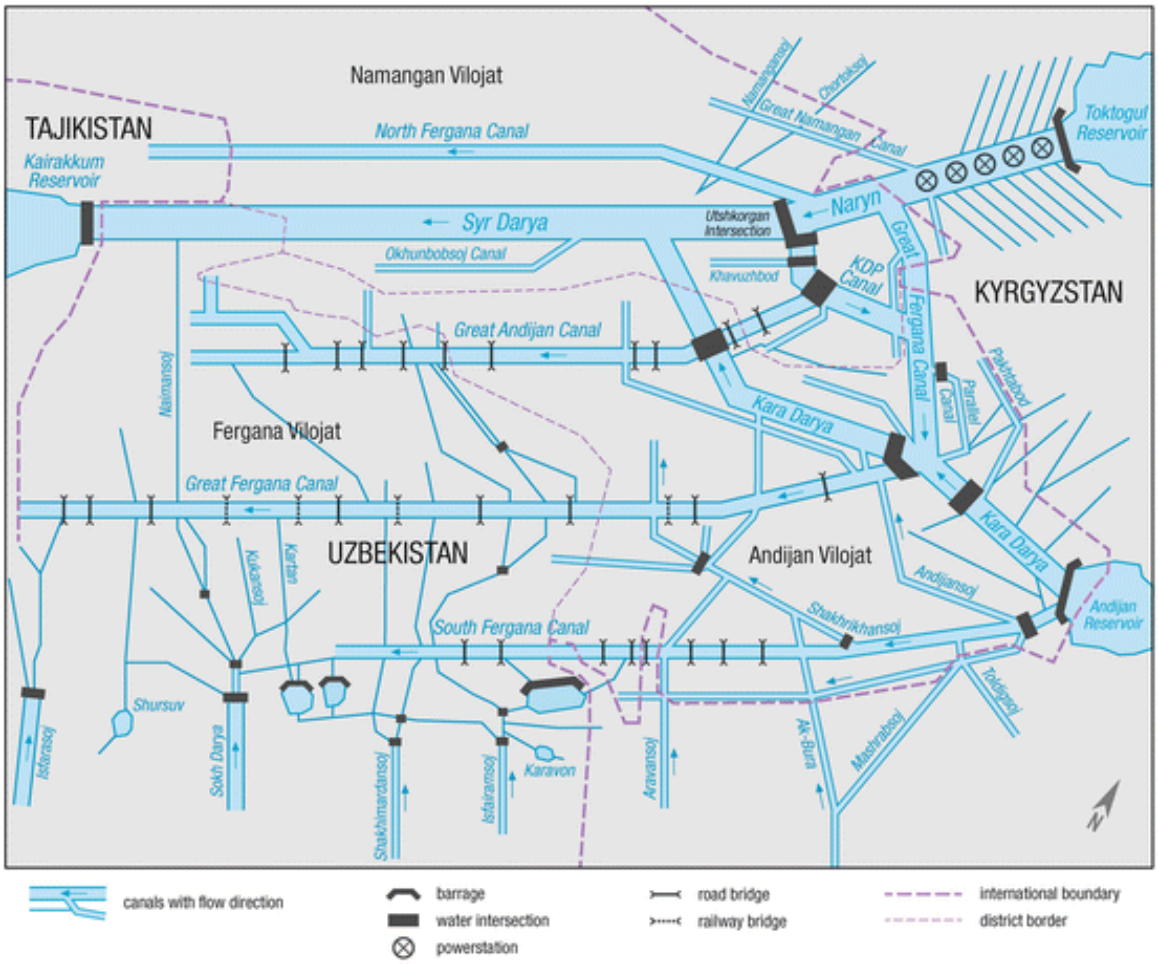


Source: Philippe Rekacewicz, UNEP/GRID-Arendal, Grida, 2006

Serious risks to security in the FV are also related to the poor state of the environment. As a result of environmental degradation and decaying common infrastructure, localized conflicts owing to environmental stressors and population pressures have become increasingly frequent in the FV. The environment and security dynamic in the FV has resulted in local skirmishes in which trade or access to roads, land, water, or pastures in the context of un-delineated borders was an underlying cause (Novikov and Kelley, 2017). The environmental risks are being heavily exacerbated by climate change which leads to more frequent natural disasters, both actual and potential, destroying common assets and livelihoods. The poorest areas of the FV's population are obviously the least protected and most vulnerable to the risk of natural disasters. Most of these areas, for example, depend on river flows for agriculture and domestic water supply; consequently, these areas are close to often unprotected riverbanks. Floods directly affect the security and livelihood of people living in these areas. As the impact of climate change may intensify water stress and land degradation, the shrinkage of the agricultural sector could compel migration from rural areas to seek livelihood opportunities elsewhere (Reyer et al, 2017). Salinization already afflicts over 60 percent of irrigated lands in CA (Laruelle and Peyrouse, 2012).

As one of the most precious natural resources to sustain livelihoods and for agriculture production, water has been at the center of continuous tensions and disputes among Central Asian states since the collapse of the Soviet Union. According to Kreutzmann (2016), the complicated and interconnected system of centralized management and distribution of irrigation water infrastructure which was built in 19th century and further expanded during Soviet times (1930s to 1980s) could not be collectively and fairly managed following independence along with the setting up of national borders (see Map 7). Reaching the agreements was prevented by the fact that, for example, Uzbekistan's irrigation network in the three bordering provinces of the FV (Andijan, Fergana, and Namangan) having the highest demand for irrigation has no direct access and control over the water sources and reservoirs. The complexity of shared water management in the broader context of regional tensions over transboundary water management and water energy nexus has negatively affected agricultural productivity and caused conflict and tension in the densely populated FV, where Uzbekistan, Kyrgyzstan, and Tajikistan converge. 'The border regions between Kyrgyzstan, Tajikistan, and Uzbekistan (including the enclaves) are also particularly prone to water availability and access to water problems, the irrigation infrastructure having been built when the borders were only administrative divisions. Irrigation channels now pass through the territory of two or even three states. In Kyrgyzstan, the Uzbek population is concentrated mainly in the south, in Osh, Jalalabad, and the Kara-Suu, Aravan, and Suzak districts. The Sughd province of Tajikistan has a large Uzbek minority. Under these circumstances disputes among local communities over water or land may quickly mobilize communities through networks rooted in ethnic solidarity' (UNEP, OSCE, NATO, OECD, 2005). These findings are also shared by international agencies. According to the Department for International Development of the United Kingdom (UK DFID, 2016), access to irrigation and pasture resources remains an important—often the most important—source of inter- and intracommunal conflicts in the three countries and the communities selected for intervention are mostly in border areas and share common irrigation infrastructure and/or common pasture. The lack of effective water sharing arrangements at local level causes constant conflict among local communities and negatively affects the agricultural productivity of the major crops and horticulture, all of which contributes to growing intercommunity divisions, poverty, and stressed livelihoods. In fact, during most of the conflicts in the FV since the 1990s, shared water resources and systems was one of the main points of contention, including irrigation canals, pipes, dams, reservoirs, and hydropower plants (Ramos, Jose Antonio et al, 2021).

Map 7: Transboundary Irrigation Water Infrastructure in the Fergana Valley[14]



Source: Kreutzman (2020)

All in all, the FV depicts a classic case of the 'tragedy of commons' (Ostrom, 2007) in the sense that it is open to all resources with no means to limit the efficient number of users through (a) the affordability of exclusion costs; and (b) the presence of legally defined and recognized/respected by all property rights (ideally private, unless communal can be managed well in terms of exclusion) will inevitably lead to the shared resources' uncontrolled overutilization by an increasing number of users, with a collectively negative externality effect for all.[15] That is what happens in the FV where each side is trying to maximize access to open common resources amid the poor delineation of borders, challenging demographics, and a lack of binding agreements. As the governments in the three bordering states of the FV lack effective agreements over separating common resources and related infrastructure, these create uncertainty and drive tensions. Decades after the collapse of the Soviet Union, norms on managing joint infrastructure in the FV have emerged among countries in the region, but these are not always predictable and are poorly enforced. According to Kurmanalieva (2018), despite efforts to enhance cross border pasture and water management by establishing new institutions, conflicts among bordering ethnic groups over pasture and water resources are systemic. Lack of binding arrangements leads to unequal pasture and water access and use in the border region especially in Kyrgyzstan and Tajikistan (Batken and Isfara regions). This conclusion has been supported

[14] Kreutzman, Herman. (2020). From Upscaling to Rescaling: Transforming the Fergana Basin from Tsarist Irrigation to Water Management for an Independent Uzbekistan, retrieved from https://link.springer.com/chapter/10.1007/978-3-319-18971-0_9

[15] Ostrom, Elinor. (2007). Governing the Commons, Cambridge University Press, 2015

by the World Bank, where experts argue that the lack of access to land is a significant grievance among young men from low-income households (World Bank 2020).

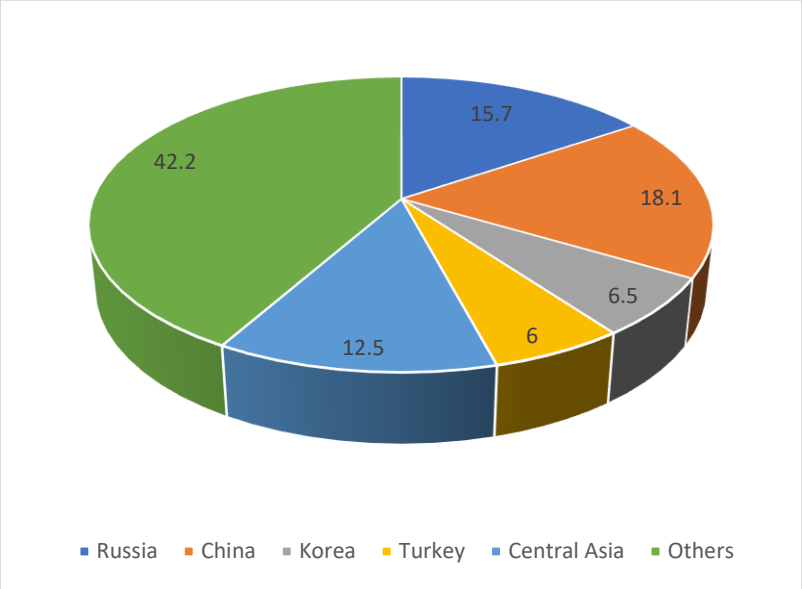
IV. The Main Barriers to Cross Border Trade and Cooperation in Central Asia and across the Fergana Valley

Overall, intraregional trade in Central Asia is low, reflecting the incompatible and uncomplimentary structure of cross border national economies since the dissolution of the Soviet Union in 1991. In fact, less than 10 percent of Central Asian countries' trade is with regional neighbors compared to 47 percent in the much larger and diversified East Asia and Pacific and 60 percent in the EU (12.5 percent for Uzbekistan, Figure 5). The diversity in the Central Asian economies in terms of size, economic structure, and resource endowments should lead in theory to gains from trade based on comparative advantage. Studies based on gravity models that examine actual versus potential trade among Central Asian economies find that Uzbekistan, Kyrgyzstan, and Tajikistan trade below predicted levels with each other suggesting significant constraints to intraregional trade [16] (World Bank, Regional Engagement Framework for Central Asia, 2019). Moreover, against expectations, barriers are rising even as trade has risen an estimated 70 percent year on year from 2017 to 2018 between Uzbekistan and Tajikistan. For example, as cheaper agricultural goods from Uzbekistan penetrated Tajik markets through informal trade networks, authorities imposed higher transit cost on cars at Uzbek-Tajik border crossings.[17] Fundamental reasons for poor intraregional trade are: weakly interconnected and small local markets; low competitiveness of domestic products; economic fragmentation manifesting, for example, in the lack of integrated value chains in industry and agriculture; transport and logistical hurdles which manifest, for example, in the prevailing mostly NTBs; and increasing costs of trade and transit (discussed in more detail below).

[16] For Uzbekistan, see Oh, J, Yuldashev, B, Moon, SH (2018), 'Where is Uzbekistan's trade and where should it be directed? Gravity analyses for being doubly landlocked,' *International Area Studies Review*, 21(1), pp68-84. For Kyrgyzstan see Allayarov P, Bahtiyar M, Sazzadul A, Nurmatov N (2018), 'The Factors Affecting the Kyrgyz Republic's Bilateral Trade: A Gravity-model Approach,' *Journal of Asian Finance, Economics and Business*, 5(4), pp95-100. Tajikistan is examined in Lucie Wuester, 'Tajikistan's Trade Flows in a Changing Regional Context,' SAIS Independent Research Project, April 2019

[17] World Bank (2020). Regional Economic Framework for Central Asia, internal publication

Figure 5: Uzbekistan Foreign Trade by Country, 2019 (Percent Share)

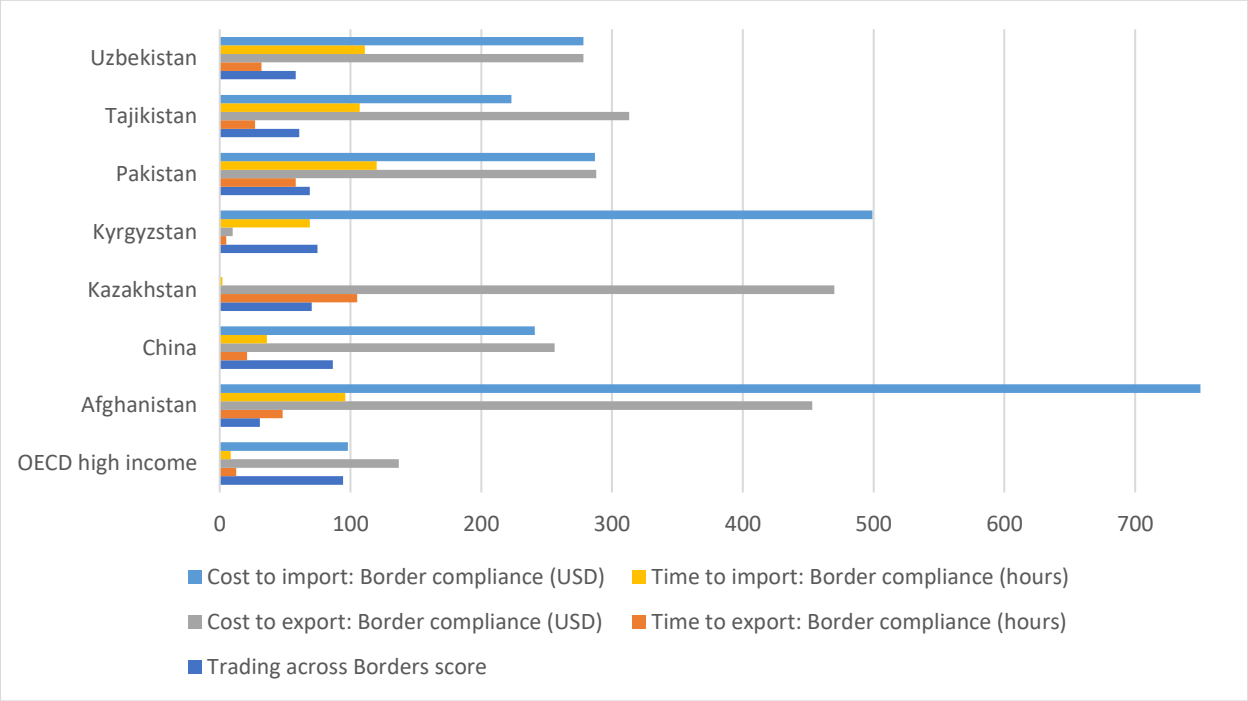


Source: State Statistics Committee, Republic of Uzbekistan, 2019

Cumbersome and ineffective border crossing regime and poorly divided common infrastructure assets and resources in the FV result in higher costs, informality, economic fragmentation, and foregone opportunities to explore regional economy of scale. These problems are coupled with specific barriers to trade and border crossing, those further impeding the potential for regional growth, economic and trade complementarity, RVCs, and intraregional FDIs.

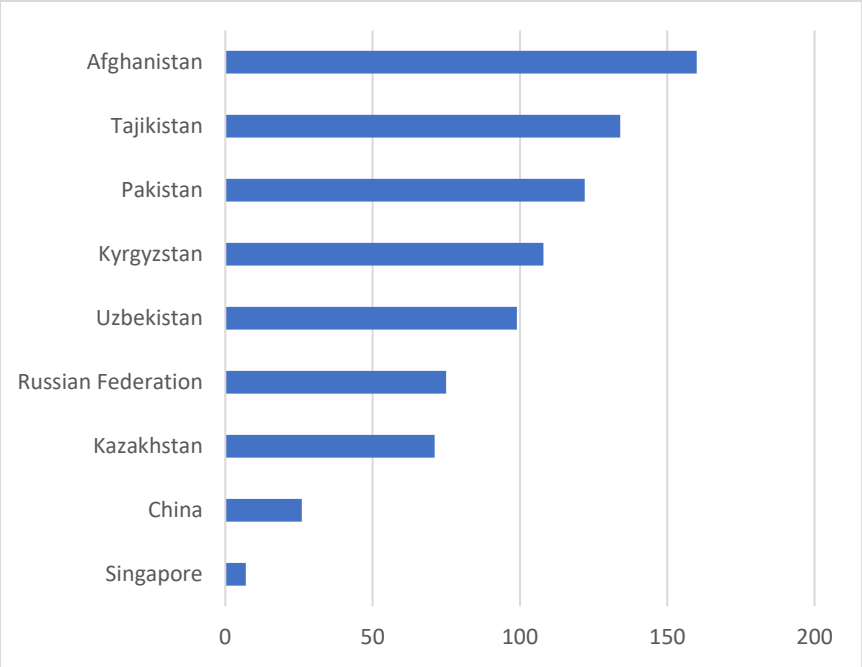
Overall, all bordering Central Asian countries in the FV rank poorly in terms of trade and logistics barriers according to international benchmarks. Specifically, according to the World Bank's Doing Business indicators (trading across border), all CA countries are lagging behind not only the top OECD countries but also China, with particularly high costs of import (Kyrgyzstan) and export (Tajikistan), and time to import for both Tajikistan and Uzbekistan (see Figure 5). Further, according to the World Bank's logistical performance indicators (LPIs), Tajikistan, Kyrgyzstan, and Uzbekistan also scored rather low with particularly poor scores related to customs, shipments, trading. And tracing, especially for Tajikistan (see Figures 6 and 7). According to the CAREC Strategic Framework (ADB, 2020), the improvements in trade policies and facilitation in the region, especially in terms of logistical and transport infrastructure and border and customs administration, can lead to significant increases in trade volumes, both intra-regionally and with the rest of the world.

Figure 6: Trading Across Border Indicators



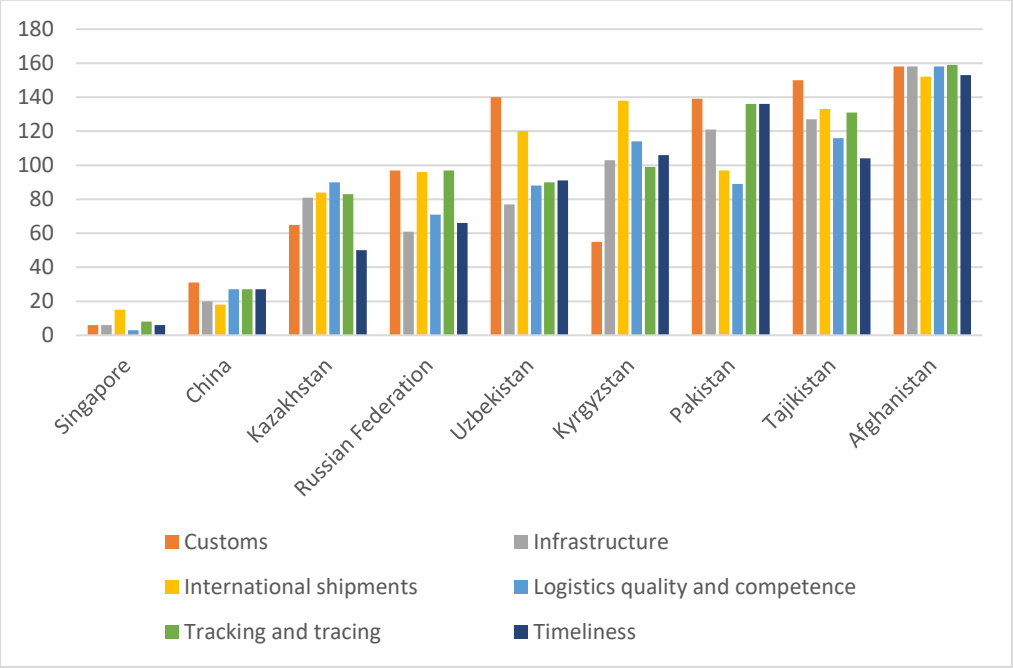
Source: World Bank, Doing Business indicators, 2020

Figure 7: Overall LPI Ranking



Source: World Bank, Logistical Performance Indicators, 2020

Figure 8: Detailed LPI Ranking

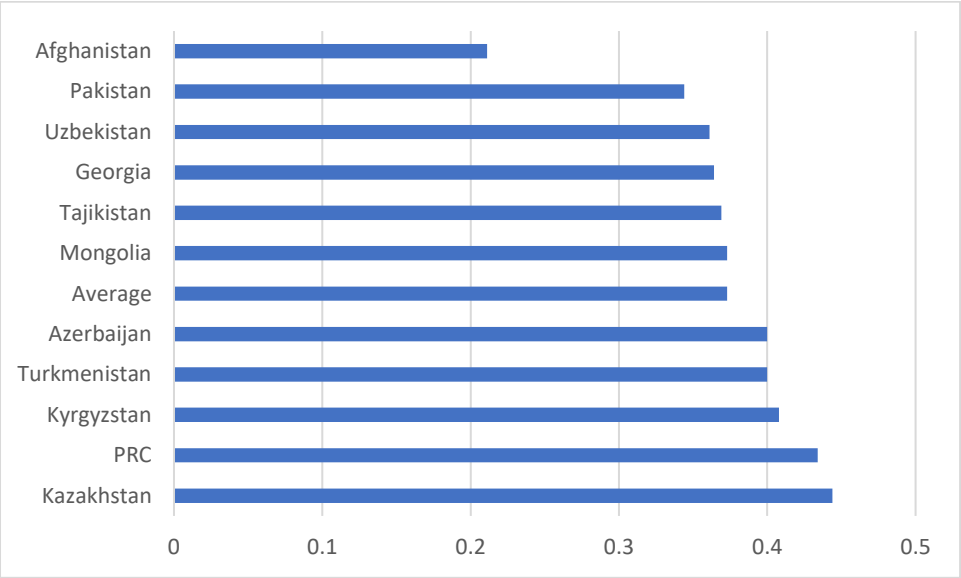


Source: World Bank, Logistical Performance Indicators, 2020

Two out of three countries in the FV, namely Uzbekistan and Tajikistan, are ranked below average based on the CAREC Regional Integration Index (CRII, 2006-2019) which measures progress in terms of intrasubregional integration (Figure 9).[18] Relatively low integration scores are the function of multiple factors such as barriers to trade and investment, a low degree of trade openness causing trade and economic informality and underdeveloped RVCs. Other measured factors of the CRII include underdeveloped financial integration and cross border infrastructure, which also indicate a digital divide and barriers to ICT connectivity; this is especially so in Tajikistan which is ranked the lowest in the major indicators of ICT connectivity and infrastructure (GSMA, 2020, Digital CAREC).

[18] CRII consists of four pillars, namely, i) cross border infrastructure and related software, ii) trade and investment cooperation and integration; iii) monetary and financial cooperation and integration, and iv) cooperation in regional public goods

Figure 9: CAREC Regional Integration Index



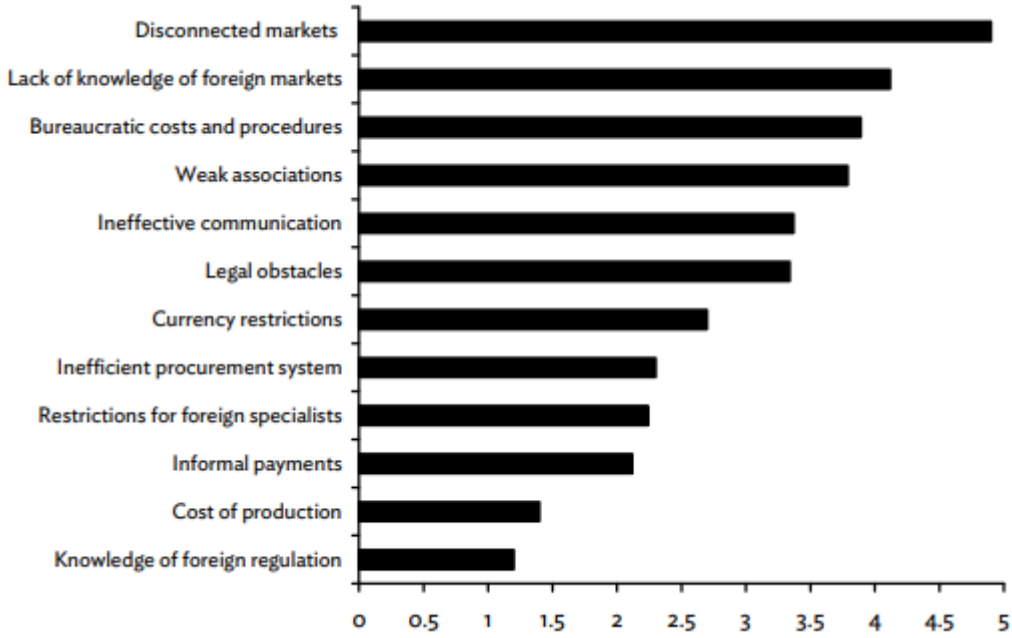
Source: CAREC Institute, 2019

The data from international rankings is further confirmed by other sources and local experts in Central Asia, which assess the trade and transport facilitation arrangements as highly inefficient and further impeding trade and transit in CA. According to the World Bank,[19] logistics costs in CA vary from 20 percent to around 40 percent according to the data received from business association and logistical companies operating in CA, which is significantly higher when compared to China, Europe, and the USA where the value of logistical costs stands at 5 percent to 10 percent of the total. Border crossing adds significantly to trade costs. Vakulchuk and Imomnazarov (2014) suggest that NTBs affect trade and generate possibilities for rents, specifically citing frequent transport and weight controls, convoying and customs escorts, and so on. The authors further provide the following estimated costs of NTBs in CA (also widely present in the FV):

- Border crossing activities take up to 50 percent of the time to transit a corridor
- Border crossing costs account for about 40 percent to 70 percent of the total costs of around US$700 to US$1,750 to move a 20 ton cargo over 500 km in CA.

[19] World Bank. (2014, May). Central Asia, Opportunities and Challenges for Trade, internal analytical paper,

Figure 10: Informal Barriers to Cross Border Trade in Central Asia



Source: Vakulchuk, Imomnazarov (based on the survey of 108 companies in Kazakhstan and Uzbekistan on a scale 0-5, ADB, 2014)[20]

According to NELTI monitoring,[21] 'about 30 percent of the transport costs in CA were due to randomly, discretionally imposed unofficial payments by the border and customs officials, both en route and at border crossing points.' For example, data from the CAREC Corridor Performance Measurement and Monitoring revealed that in 2019, trucks from Uzbekistan going to Kazakhstan took an average of 21.5 hours to clear through the Yallama–Konysbayev border crossing point (BCP). Trucks from Uzbekistan going to Tajikistan (along the FV) needed 3.1 hours on average to pass through the Oybek–Fotehobod BCP. Freight trains from Kazakhstan going to Uzbekistan took an average of 12 hours to clear through the Saryagash–Keles BCP. As reported, drivers often make unofficial payments to expedite the clearance of goods and vehicles through the BCPs.[22] Further, according to ADB, the high cost of border crossing for goods and trucks increases overall trade costs, making goods produced in the STKEC region less competitive in foreign markets, domestic prices of imported goods higher, and transit trade less cost efficient. Finally, the expenses and delays in the customs transit of goods considerably increase trade costs and commodity prices in the region.

The presence of the main trade and non-trade barriers in Central Asia is especially manifest in highly interconnected, geographically compact, and densely populated FV. Specifically, there are 12 BCPs (eight with international status and four with bilateral status) in the FV (see Box 1 and Map 8). While most of CA is geographically remote, dry, and mountainous, more densely populated centers are concentrated in the lowlands in the geographic south of the Valley. Several important economic corridors in this area are split by the large number of national borders in the FV.

[20] ADB (2014), Analysis of Informal Obstacles to Cross Border Economic Activity in Kazakhstan and Uzbekistan, retrieved from https://www.adb.org/sites/default/files/publication/42485/reiwp-130-cross-border-economic-activity-kazakhstan-uzbekistan.pdf

[21] ECO Regular Monitoring of Trucks, Retrieved from http://www.iru-nelti.org/index/en_nelti3_index

[22] ADB (2021), A Road Map for Shymkent–Tashkent–Khujand Economic Corridor Development, retrieved from https://www.adb.org/publications/road-map-shymkent-tashkent-khujand-corridor

BOX 1: Border Crossing Points in the Fergana Valley

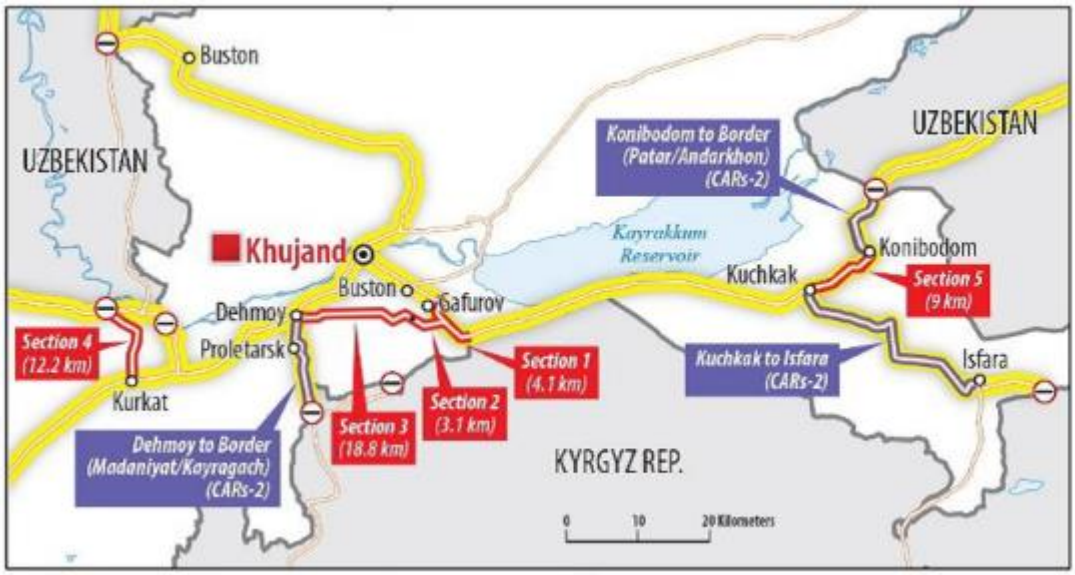
Kyrgyzstan–Tajikistan:
- Kyzyl Bel (Batken region), international
- Bor-Dobo (Osh province to Eastern Tajikistan, Murgab district), international
- Kulundu, Leylek district, Batken region, KG, bilateral
- Karamyk, Chon Alay district, Osh province, KG, international

Kyrgyzstan–Uzbekistan:
- Gulgon (Kadamjay)–Vodil (FV), bilateral (around Shahimardan enclave, UZB)
- Kyzyl Kiya (Batken) KG to Kuvasay district, FV, UZB, bilateral
- Dostyk, Osh-Dustlik, Andijan region UZB, international
- Madaniyat, Jalalabad region, KG–UZB

Uzbekistan–Tajikistan:
- Andarhon (Patar), Fergana province UZB–Sughd province, TJK, international
- Ravat, Fergana province UZB–Sughd province TJK, international
- Pop, Namangan province UZB–Sughd province TJK, international
- Plotina, Tashkent province, UZB–Sughd province, TJK, international

Source: UN, World Bank, 2021

Map 8: International Border Crossing Points in the Fergana Valley



Source: World Bank, 2015

The large number of BCPs amid inefficient border and customs administration make trade costs more expensive; these especially hamper agricultural trade where the bordering regions of the FV have a distinct competitive advantage in producing a wide range of horticulture products. For example, China and Russia can offer an attractive market for fresh and dried horticulture goods. However, to tap the foreign markets, Central Asian countries must not only improve the quality of their products and ensure compliance with phytosanitary security but also reduce the time to move their products to the end consumers, thus enhancing logistics.[23] In the meantime, exports are predominantly bulky primary commodities rather than time sensitive, high value manufactures—such as freshly processed fruit and vegetables (F&V). This is because of a regional trade structure

[23] *Ibid*

dominated by raw materials, metals, minerals, and labor, reflecting national asset endowments that underpin comparative advantage.

V. Case Study: Developing Regional Horticulture Value Chains to Leverage Cross Border Economic Development in the Fergana Valley

RVCs are vitally important to the CAREC region owing to the key effects on sustainable job creation, prosperity, and poverty alleviation (ADB, 2019). [24] Furthermore, well established value chains represent critical links and create positive externalities for a regional economy where local firms and other economic actors can be involved and benefit from access to both regional and external markets, thus enhancing their competitiveness, their productivity, and their diversification. Last but not least, RVCs promote intraregional trade through a network of local producers and market users, thereby improving economic integration within the common locally competitive products and service markets (such as agriculture, tourism, and selected types of manufacturing).

Several studies show that Kyrgyzstan, Tajikistan, and Uzbekistan have ideal agroclimatic conditions and a strong comparative advantage in producing a wide range of internationally competitive horticulture products, also by developing agriculture value chains.[25] This is especially the case for the FV owing to its unique endowments of fertile, irrigated land and ideal climate. There is also a strong yet currently underutilized potential to explore the economies of scale by developing regionally competitive horticulture value chains transforming the FV from lagging fragmented region to a center of growth and investment.

Uzbekistan's provinces (Fergana, Namangan, and Andijan) are the largest, most developed part of the FV with a relatively strong technological and resource capacity in developing export oriented regional horticulture value chains. 'In Uzbekistan, horticultural products are processed by 149 large firms and numerous small processing enterprises. Processed horticultural products include canned and dried fruit and vegetables, tomato paste and juices, and grape wines and liquors. A little over 15 percent of total horticultural crops produced are processed (including drying). Horticultural product processing is growing rapidly, and this affects some horticultural products more than others' (World Bank, 2012).[26] Furthermore, during the period 2000-2010, vegetable processing increased by almost 600 percent, fruit processing by 300 percent, and grape production doubled. (World Bank, 2012).

A further boost to the enhanced competitiveness of Uzbekistan horticulture has been provided by the market reforms since 2017. According to the World Bank analysis (2020), '**the first-generation agricultural reforms have focused on the removal of price and market distortions for horticulture export, promoting outward-oriented agriculture**. Uzbekistan's strong potential in horticulture, if realized, can contribute to higher economic growth and generate larger export revenues. Horticulture also has the potential to create many better paid jobs, having already created more than a million jobs. Labor requirements in horticulture are spread year-round, especially for greenhouses and post-harvest processing and marketing activities, and women comprise a substantial share of full and part time employees within agrofirms and horticulture farms. The horticulture subsector covers a wide

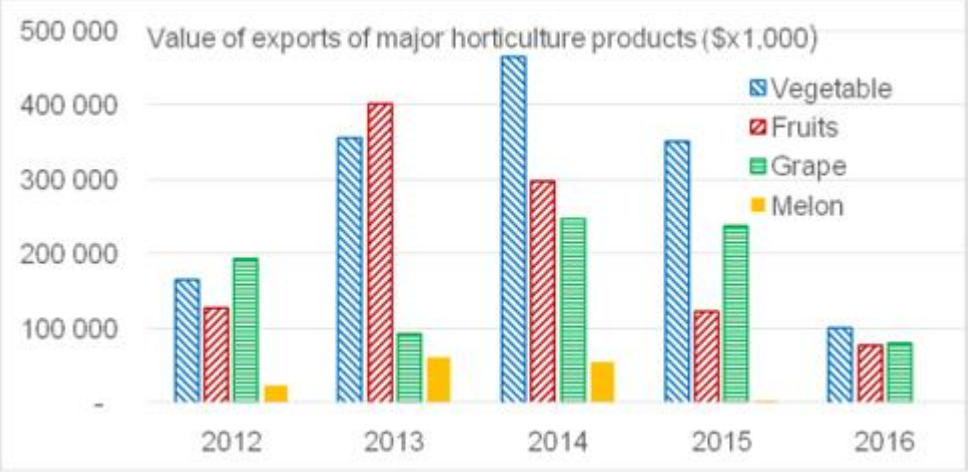
[24] ADB. (2019). CAREC Regional Integration Index (CRII): Interpretation and Policy Implications, *CAREC Institute. Working Paper*, https://www.carecinstitute.org/wp-content/uploads/2019/12/CI-CRII-Interpretation-and-Policy-Perspective-27-Dec-2019.pdf

[25] World Bank. (2019). China 2030—Opportunities for Central Asian Agriculture. Retrieved from https://openknowledge.worldbank.org/handle/10986/33115

[26] World Bank. (2012). Uzbekistan: strengthening the horticulture value chains. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/21495/942810WP0P12920iculture0value0chain.pdf?sequence=1

range of fruit and vegetables, which includes potatoes, melons, and wine grapes. Between 2017 and 2019, most horticulture export restrictions were eliminated, including: (i) abolishment of export monopoly of Uzagroexport; (ii) abolishment of mandatory sale of 25 percent hard currency earning, and permission to keep hard currency in the exporter's account; (iii) reduction in time to receive certificate and register the contract at customs for horticulture exporters; (iv) elimination of railroad monopoly for export; (v) establishment of 'green corridors' at border crossings; (vi) elimination of minimum export prices; and (vii) removal of full prepayment requirement for export contracts outside Uzagroexport. As a result, in 2018 horticulture exports grew 35 percent, accounting for 80 percent of total agrifood exports. In 2019, horticulture exports are projected to grow by a further 40 percent.'[27]

Figure 11: Uzbekistan's Horticulture Exports, 2012-2016 (US$, thousand)



Source: State Statistics Committee, Republic of Uzbekistan, 2017

Many international and local experts recognize Uzbekistan as a leader in Central Asia in terms of international trade in apricots, table grapes, sweet cherries, and melons (GIZ, 2017). According to GIZ, Uzbekistan's revenues from horticulture exports are nearly 34 times higher than those of Kazakhstan, Kyrgyzstan, and Tajikistan combined.

Other countries in the FV, Tajikistan and Kyrgyzstan also have strong potential to develop regionally integrated value chains. For example, in Kyrgyzstan, 75 percent of the total stone fruit production are contributed by the country's southern regions of Batken (55 percent), Osh (12 percent), and Jalalabad (8 percent, including almost 90 percent of the country's total plum production) (ITC, 2016; WB, 2018). Further, according to ITC, only 21 percent of the total fresh fruit production in Kyrgyzstan was exported in 2018. In the Sughd region of Tajikistan, significant volumes of stone fruit production, both fresh and dried (especially apricots), is concentrated in the FV districts of Isfara and Kanibadam. Almost half of Tajikistan's orchards, including more than 80 percent of its apricot orchards, are in the northern Sughd oblast, which creates unique opportunities for establishing regional logistical hubs for processing, marketing, and exporting—building on the emerging success of Isfara district in developing a regional competitive logistical hub for the production, packaging, and export of apricots (see Box 2).

[27] World Bank. (2020). Uzbekistan: Agriculture modernization project, Project Appraisal Document (para 8, p13), retrieved from https://documents1.worldbank.org/curated/en/434601585015259716/pdf/Uzbekistan-Agriculture-Modernization-Project.pdf

BOX 2: Regional Apricot Market in Isfara, Tajikistan as an Opportunity for Enhanced Regional Horticulture Value Chain in the Fergana Valley.[28]

Significant production and processing of organic apricots (orchards, drying and processing facilities) in the Northern Tajikistan is located in four districts of the Sughd Region: Isfara, Bobojon Gafurov, Asht, and Kanibadam, all part of the FV. This is the main crop that supports farms and rural livelihoods in the area. The business is based on the supply of local apricots and is organized through the value chain connecting farmers, producers, and exporters.

The variety of final products in the market include fresh, dried, and processed apricots.

For all these types of apricot, demand is strong in the regional markets. At the same time, shipment and transportation costs are high owing to the significant costs of transportation and logistics.

Isfara district is a major supplier of dried fruit and apricots to the Russian and Kazakh market. The district is conveniently located right along the border with Kyrgyzstan and close to Uzbekistan. In recent years it has evolved into an important regional logistical hub for the delivery, drying, processing, packaging, and wholesale export of dried apricots to other destinations (Russia, Kazakhstan, and even China). Dried apricots are purchased from farming households and city markets in Tajikistan, as well as transborder areas in Kyrgyzstan and Uzbekistan, and batched by wholesalers at the markets in Isfara. Isfara is the largest market for dried apricots. From here exporters buy the product to ship it to the target markets. Many new SMEs and firms have opened in Isfara since 2008; these process the product using advanced technologies such as those imported from Turkey.

As seen from this case study, the opportunities to create a regional FV hub for integrated apricot harvesting, production, and marketing (along an entire value chain) can be realized based on the emerging private sector led initiatives. Close proximity to the large export markets makes developing integrated horticulture value chains in the FV even more attractive. Numerous countries that are net importers of F&V cultivated in the region are situated close to (or at least not far away from) the region. These include China, the Russian Federation, Kazakhstan, Germany, the United Arab Emirates, and other Asian, European, and Middle Eastern countries. In 2018, the net imports of fruit

[28] Based on overview from Abdulvohidov, Bakhtiyor. (2007). Value chain analysis for apricots, grapes, and tomatoes in Northern Tajikistan; Kuraga (dried apricots)—Tajikistan's alternative currency and national pride with a turnover of over $100 million. (2007). *Market Plus.* Retrieved from https://east-fruit.com/en/news/kuraga-dried-apricots-tajikistans-alternative-currency-and-national-pride-with-turnover-of-over-100m/

and nuts amounted to $3.4 billion in China and $5.0 billion in the Russian Federation. Demand for many horticulture goods, including organic produce, is expected to grow rapidly in both China and the Russian Federation over the medium term (ADB, 2021).

Uzbekistan's agriculture reforms and local development investments (Obodi Kishloq and Obodi Mahalla programs, 2018) create unique opportunities for positive spillover effects to spur RVCs in the FV, especially in highly competitive horticulture. Specifically, according to the Caspian Policy Center (2020), in the FV districts, 'Uzbekistan is taking a lead in supporting agricultural business in the region and promoting investment opportunities that benefit the valley's residents. Uzbekistan has already implemented several initiatives to ensure economic stability for its FV communities, including allocating state funds to support its agricultural workforce, vulnerable populations, and struggling individuals living in various enclaves. In addition, it is attracting foreign investors to support infrastructure projects and further develop its tourism and agricultural sectors in the region and provide expanded employment opportunities for valley residents' (Caspian Policy Institute, 2021).

While the potential to develop cross border horticulture RVCs is significant in the FV, the existing barriers are substantial and need to be addressed. According to ADB (2021),[29] many factors hinder the production and export of horticulture goods in the region. One of these is that the agriculture sector mostly consists of small commercial farms and noncommercial household farms. There are only a few agricultural cooperatives and clusters and only a small proportion of farms are members of an agricultural cooperative or part of an agricultural cluster. Overall, the existing barriers can be grouped into the following areas: inefficient and poorly developed logistics and transportation, border crossing regulations, fragmentation of local producers and suppliers, informality, and lack of up-to-date marketing tools and information (see Annex 1 for a detailed description). Further, according to ADB (2021), actual output and exports of F&V in the STKEC region are well below their potential levels. F&V accounts for a small percentage of merchandise exports of all three bordering regions in the FV.

Summing up, regional integration along the entire horticulture value chain in the FV provinces of all three bordering countries may bring enormous opportunity and help transform these currently isolated border regions to the regional center of growth with its distinct competitive products. For this to happen, it is pivotal to address the existing barriers, realize the economy of scale, align transportation networks, synchronize border crossing regulations to allow the elimination of NTBs, reduce transit costs, and improve and consolidate logistics. This could in turn help improve the quality of regional brands of horticulture products and strengthen export potential in reaching out to the largest regional markets in Eurasia and South Asia. Positive externalities from such value chain integration would include job creation, rising prosperity, economic development, and conflict mitigation across the entire region.

The next chapter is a good example of how other bordering regions in South Asia are facing and overcoming similar challenges.

VI. Comparative Analysis and Lessons Learned from South Asia and Africa

Many cross-border countries and regions globally, in particular in South Asia and Africa, are facing significant challenges, risks, and barriers to regional integration; they specifically identify cross border value chains as an important opportunity for economic transformation, trade, and investment. The examples of the Northeast Region (NER) in India, South Asia (India, Bangladesh, and Nepal), and the Lake Chad area in Sub-Saharan Africa are considered in this chapter.

[29] ADB. (2021). A roadmap to Shymkent–Tashkent–Khujand Economic Corridor. Retrieved from https://www.adb.org/publications/road-map-shymkent-tashkent-khujand-corridor

The NER in India is a challenging border area shared by India, Bangladesh, Nepal, and Bhutan which is facing very similar challenges to the Fergana Valley in terms of border delineation and economic, connectivity related disruption. As highlighted by World Bank analysis, 'the NER's growth and development dynamics was altered by the division of the subcontinent, which caused the interruption of inland water, road, and railway communications through Bangladesh and the loss of access to the Port of Chittagong, the gateway to East Asia and Southeast Asia. NER virtually became an island, connected to the rest of India only through the narrow corridor. NE India's access to the ports became more circuitous and cumbersome. The disruption of connectivity following partition minimized NER's natural advantages and prevented it from fulfilling its potential' (WB, 2020).[30] These historic developments causing geographic fragmentation of a previously interconnected area because of border division is very similar to what has been observed in the FV since 1991.

The approach to reconnect the NER in South Asia is very similar and applicable to Central Asia where India, as the largest country in the region (similar to Uzbekistan in Central Asia), has adopted a strong policy framework towards regional integration with cross border countries. Further, according to the World Bank, 'these policies were implemented as part of the Government of India's "Act East" policy aimed to make India's engagement with the Association of Southeast Asian Nations (ASEAN) more proactive. In the pursuit of such policy objective, the Government of India in recent years has come to an increased realization that regional integration (as part of so called "Neighborhood First" policy), has significant implications for India's economic development. Over time NER has become central to the implementation of India's Act East policy and its regional integration efforts in the BBIN region, given its strategic location at the crossroads of Bangladesh, Bhutan, India, Nepal, Myanmar, and beyond to East Asia. Regional integration initiatives of the Government of India have resulted in an increase of investments including into connectivity infrastructure in NER, as well as deepening subregional cooperation, especially between India and Bangladesh. Mutual benefits were also observed in other less developed countries that are part of NER—such as Bangladesh which serves as a critical connector between South Asia and ASEAN. To promote unconstrained trade, the Government of India has also cancelled the variety of NTBs (transshipment requirements among other NTBs) and committed to significant investments in regional transport and connectivity infrastructure. The connectivity initiatives in NER are complemented by the growing subregional cooperation among Bangladesh, Bhutan, India, and Nepal, especially the deepening relationship between India and Bangladesh' (WB, 2020).[31]

A shift of NER's geographic and marketing positioning from being an isolated part of India to the regional center of East Asia can potentially be driven by the F&V industry which is central to the economic prosperity of a wider region. Very similar to the Fergana Valley in CA, 'the NER of India is positioned favorably for the cultivation of several F&V products. The attractiveness of the region, among other factors, is further enhanced by the possibilities of the leveraging opportunities offered by neighboring countries like Bangladesh to scale up the value chain. This could also give a fillip to cross border trade, investment, and commerce with regions adjacent to NER, particularly Bangladesh. NER's diversity of agroecological zones, high share of high value F&V products, and relatively lower penetration of (chemical) input intensive cultivation align the region extremely well with the fast-growing global consumer segment seeking fresh and good quality products. These factors provide an effective counterbalance to NER's inherent logistics disadvantage in access to the mainland Indian market. Significant opportunities for development of the sector are also provided by the rapid rise of

[30] World Bank. (2020). Strengthening Cross-Border Value Chains: Opportunities for India and Bangladesh, World Bank, Development Knowledge and Learning. Retrieved from https://openknowledge.worldbank.org/handle/10986/32719

[31] *Ibid*

urban populations in the more proximate regions of Bangladesh, Nepal, Bhutan, and Myanmar, given the many initiatives to improve connectivity to these regions' (World Bank, 2020).

Finally, and again fully consistent with the case of the Fergana Valley, 'realizing NER's potential in fresh F&V products for discerning customers will require targeted action to solve the key challenges of smallholder capacity, aggregation, cold chain logistics, and finance. All exporting nations have had to build further on their inherent climatic advantages by investing in superior cultivation and harvesting practices that result in better yields and/or quality, and post-harvest infrastructure and logistics to ensure that the products reach high value markets and consumers with quality intact and assured in terms of, for instance, traceability and conformity to sanitary and phytosanitary measures' (World Bank, 2020). More advanced Indian producers (a role where Uzbekistan is a leader in the Fergana Valley) and SMEs are better positioned to lead the process of RVC consolidation and export promotion.

Another relevant example to promote RVCs relates to the Lake Chad area in Sub-Saharan Africa. The area occupies almost 8 percent of the African continent and spreads over seven countries: Algeria, Cameroon, the Central African Republic, Chad, Libya, Niger, and Nigeria. 'Food insecurity, limited water resources amid droughts, conflicts, terrorism, displacement, and climate change effects create multiple compound challenges for the region.'[32]

According to the World Bank,[33] the strengthening of selective regional value chains (RVCs) is one of the paths to enhance cross border regional integration and contribute to conflict resolution and peace through economic development and trade. During consultation process, 'private sector representatives were specifically requested to support the development of RVCs, especially in agriculture given the risks of possible disruption and the opportunity for Africa to further intensify the development of RVCs among cross border countries in the Lake Chad basin. As presented by the WB regional strategy the development of RVCs shall help improve productivity of agriculture and other sectors and create jobs; facilitate faster product delivery to the markets, contribute to building a stronger private sector, connecting people to job opportunities, and increasing food security in the region. Furthermore, under the COVID-19 pandemic, the importance of focusing on RVCs has become more apparent. Possible assistance in this area shall consist of (i) undertaking gap analysis on value chain links, (ii) improving market access to processors, (iii) harmonizing regulations and trade facilitation, (iv) improving financial access, and (v) reducing potential risks. Regional governments and development agencies therefore need to partner closely to accelerate development of RVCs and support improvements in quality through a combination of trade facilitation policies, affordable access to finance, provision of business advisory services and introducing necessary risk mitigation arrangements' (World Bank, 2020).

[32] Usigbe, Leon. (2020). Drying Lake Chad gives rise to crisis. Africa Renewal. (2019. Retrieved from https://www.un.org/africarenewal/magazine/december-2019-march-2020/drying-lake-chad-basin-gives-rise-crisis

[33] Supporting Africa's Recovery and Transformation: Regional Integration and Cooperation Assistance Strategy Update for the Period FY21–FY23, World Bank, 2020, https://documents1.worldbank.org/curated/en/249911623450779120/pdf/Supporting-Africa-s-Recovery-and-Transformation-Regional-Integration-and-Cooperation-Assistance-Strategy-Update-for-the-Period-FY21-FY23.pdf

Conclusions and Recommendations

The FV represents a complex interplay of risk factors and significant yet largely unexploited opportunities to drive growth and prosperity in the adjoining provinces and the whole of CA. This paper thoroughly analyzes many risk factors and policy barriers while looking opportunistically and making a case for the positive transformation of the largely agriculture oriented, isolated, and fragmented region into the center of regional growth and prosperity for all of CA. The current momentum of open market reforms in Uzbekistan, whose provinces represent the heart of the FV, is highly conducive to making this optimistic scenario happen.

In addition to the continued overall progress in border delineation and reaching arrangements for shared resource and common infrastructure management, a combination of specific measures to address existing barriers to connectivity, trade, and investment is required to produce the best outcome. The continuous liberalization of trade policy reforms and logistical improvements—including trade and transit infrastructure, and the efficiency of border crossing and customs administration—can yield significant benefits in terms of trade promotion and FDI inflows, both intraregionally and from the rest of the world.

Capitalizing on opportunities from the recently approved economic and transport corridors, as supported by IFIs and bilateral parties (ADB, WB, IDA, China, and Russia), the local stakeholders in the FV (government, private sector, and SMEs) should be in a better position to promote the integration of specific markets, develop joint manufacturing hubs along entire value chains—such as horticulture, and explore other forms of mutually attractive cross border economic cooperation to reinforce the competitiveness of the regional economy (tourism, services, and so on).

Specific recommendations include the following proposed measures.

Government (central and local):

a) Intensify policy dialog at province level: setting up permanent regional cooperation platform, coordinating cross border provinces at regional government level, developing a roadmap to address contested issues, and developing mechanisms for shared infrastructure management (irrigation, roads, land, border control, ease of transit).
b) Localize existing national free trade agreements based on signed documents at both top and intraprovincial level among bordering countries, allowing the elimination of remaining barriers (trade and non-trade), and boosting transit trade flows and exports of transport and storage services within the FV.
c) Increase collaboration in transport and trade facilitation at the level of customs and border authorities in all countries concerned.
d) Enforce free and unrestricted cross border regime through constant monitoring, lowering the barriers to cross border trade and investment flows within the FV region; this can help to develop cost efficient and reliable regional supply chains for essential goods such as food products, to lower prices, and to enhance the competitiveness of local products.
e) Operationalize the roadmap of cooperation signed between the FV provinces at regional governor level in April 2021; this includes developing feasibility and investment plans for joint regional manufacturing hubs (based on Uzbekistan modern technologies and investments) and boosting exports of locally manufactured goods outside the FV (China, Russia, and Kazakhstan).
f) Develop the pipeline of joint projects in regional horticulture value chains (as part of the roadmap of cooperation in the FV provinces) and secure support from central government.

International development agencies:

a) Gradually shift from the physical infrastructure focused projects (such as roads) to the whole of the economic corridor approach in the FV area. This should increasingly involve soft elements (capacity, sustainable and locally managed O&M arrangements, job creation, and livelihoods), and engage private sector and local communities as partners in project implementation.
b) Localize country development assistance to the FV provinces (as part of the development partner strategies and in consultation with central government.
c) Support local province level development and investment plans for regional cooperation, and help to identify the menu of potential bankable investment projects and areas of intervention.
d) Increase assistance to cross border economic and infrastructure initiatives including regional mechanisms of project implementation.
e) Utilize specific opportunities from the recently approved regional initiative (such as ADB economic corridors, WB Central Asia Roads Program in all CA countries, CASA-1000 Project) which directly affect the FV to localize the project implementation, ensure close involvement and benefits sharing with the local population and SMEs, and explore other potential spillovers to maximize the local benefits for regional economic development and cross border cooperation.
f) Under the trade, transit, and connectivity portfolio, more actively support soft elements of customs and borders administration, enhance institutional performance, target compliance and enforcement measures, complementary improvements in trade logistics and trade facilitation and efficiency at the border crossings as part of an overall enhanced institutional support to border and customs administration (such as, implementing digital nonintrusive tools of border and customs control) to minimize NTBs and exposure risks of informal payments for citizens and businesses during border crossing.
g) For the private sector focused IFIs (EBRD, IFC, EIB) more actively support regional cross border proposals involving PPP and private sector implemented mechanisms, partnerships among private sector and business associations, and horticulture producers from all CA countries in the FV.

Private sector representatives:

a) Set up joint business councils, regional business and private sector associations with the secretariat among SMEs and entrepreneurs from cross border provinces of the FV (sectoral and overall) to ensure regular interactions, exchange of marketing and other information, showcasing opportunities to develop joint investment projects and value chains; discuss pending issues and barriers to trade and cooperation, border crossing, regulatory and NTBs; prepare joint investment proposals; and attract investments.
b) Develop the portfolio of viable investment projects around RVCs and submit them to the interstate investment funds, and international and regional financial institutions (such as IFC, EBRD, ADB, and EIB).
c) Enhance trade and regional competitiveness of compatible goods and value chains in the sectors where trade and compatible integrated manufacturing/processing could be further supported, largely based on the private sector and SME initiatives.
d) Develop and market regional agriprocessing branded products both within and outside the region (such as regional and global expo).

Critical to paving the way to implementing these recommendations is a strong political will from central government to address region specific issues and a firm partnership between regional government and private sector associations in the region. Of equal importance is a clear consideration of the unique local context.

Table 1: Detailed Matrix of Recommendations

Areas Stakeholders	Mitigating the risks and conflict factors through shared resource management and cross border economic cooperation	Addressing the barriers to economic connectivity, trade, and investment	Maximizing the potential of regional value chains
Government	- Set up permanent regional cooperation platform and coordinate cross border provinces at regional government level. - Develop roadmap to address contested issues and shared infrastructure management (irrigation, roads, land, border control, ease of transit), develop M&E and action plan, conduct joint monitoring (permanent regional intergovernment working group). - Promote successful community collaboration programs to enable closer social and cultural interactions at community level (with the support of district and mahalla level government, self-government) to openly discuss contested issues, involve community level mediators among respected residents (for example, mirobs), promote regular social and economic interactions, and enable joint	- Implement benefit sharing arrangements from large infrastructure projects (transport, energy) such as CAREC corridors (for example, BRI OBOR). - Boost transit trade flows and exports of transport and storage services both within the FV and outside to neighboring countries by increasing collaboration in transport and trade facilitation. - Lower the barriers to cross border trade and investment flows within the FV region, which can help develop cost efficient and reliable regional supply chains for essential goods such as food products. - Develop joint regional manufacturing hubs (based on Uzbekistan modern technologies and investments) and boost the export of manufactured goods outside the FV (China, Russia). - Explore other forms of attractive and competitive cross border economic cooperation and integration at FV province level.	- Increase intraregional trade, use benefits of scale economies to increase agriculture value-add, harmonize standards and regulations of raw materials and final products in the regional markets. - Expand exports of fruit and vegetables to the Russian Federation, the PRC, and other countries by (i) increasing cooperation in transport and trade facilitation, (ii) developing horticulture value chains, (iii) modernizing SPS measures, and (iv) developing food quality certification services. - These include joint projects in research and experimental development (including agricultural R&D), exchange of knowledge on plant and animal health protection, new agricultural technologies and urban planning, investments into coordinated development

	use of resources among cross border communities.		of SEZs and cross border industrial zones
International development agencies	- Explore further enabling investments in digital infrastructure, transport, and connectivity to provide the foundations for enhanced economic opportunities in production and trade of small goods, services (including healthcare and education), tourism, and cultural exchange. - Localize development assistance to the FV provinces and closer engagement with provincial government. - Support local province level development and investment plans for regional cooperation, help to identify the menu of potential bankable investment projects and areas of intervention.	- Continue to support the development of cross border transport and logistics infrastructure, enabling a reduction in transport and trade costs arising out of cross border infrastructure improvements. - Utilize opportunities from the recently approved economic corridors (such as China–Kyrgyzstan–Uzbekistan rail and road) which directly affect the Fergana Valley in order to localize project implementation, ensure close involvement and benefit sharing with the local population and SMEs, explore other potential spillovers to maximize the local benefits for regional economic development and cross border cooperation. - Help develop strategies tailored to the capacity of and opportunities facing businesses in the Fergana Valley, also to help reduce dependency on labor migration. This could include exploration of mutual interests of communities in border areas, including in informal trade and shepherding, services, and maintenance of cross border infrastructure, which may provide entry points for development of	- Shift from supporting national to regional value chains in agriculture. - Develop regional mechanism for project implementation for cross border projects with the involvement of local government, and private sector regional organizations active in the FV.

		stronger cross border social and economic institutions. Ensure stronger positive spillovers from CAREC activities/economic corridors to the local economic and community development, specifically by: - Increasing involvement of local cross border communities and entrepreneurs into regional infrastructure project design, benefits sharing, and implementation. - Implementing benefit sharing arrangements from large infrastructure projects (transport, energy) such as CAREC corridors (for example CASA-1000 CSP). - Complementary improvements in trade logistics and trade facilitation and efficiency at the border crossings as part of overall enhanced support to institutional soft aspects of border and customs administration (such as implementing digital nonintrusive tools of border and customs control) to minimize non-trade barriers (NTBs) and exposure risks of informal payments for citizens and businesses during border crossing.	
Private sector, think tanks and NGOs	- Set up joint business councils with the secretariat among SMEs and entrepreneurs from cross border provinces of the FV (sectoral and overall) to ensure	- Set up joint business councils with the secretariat among SMEs and entrepreneurs from cross border provinces of the FV (sectoral and overall) to ensure regular interactions,	- Set up joint business councils with the secretariat among SMEs and entrepreneurs from cross border provinces of the FV (sectoral and overall) to

	regular interactions, exchange of marketing and other information, showcase opportunities to develop joint investment projects and value chains, discuss pending issues and barriers to trade and cooperation, border crossing regulations and NTBs, prepare joint investment proposals and attract investment, both private FDIs and IFIs (EBRD, ADB, EIB, AIIB).	exchange of marketing and other information, showcase opportunities to develop joint investment projects and value chains, discuss pending issues and barriers to trade and cooperation, border crossing regulations and NTBs, prepare joint investment proposals and attract investments, both private FDIs and IFIs (EBRD, AsDB, EIB, AIIB). - Enhance trade and regional competitiveness of compatible goods and value chains in the range of sectors where trade and compatible integrated manufacturing/processing could be further supported, largely based on the private sector and SME initiatives. - Promote more active participation of regional SMEs as allowing the process of converting transport corridors into economic corridors, also through the integration of regional SMEs into subregional value chain activities.	ensure regular interactions, exchange of marketing and other information, showcasing opportunities to develop joint investment projects and value chains, discuss pending issues and barriers to trade and cooperation, border crossing regulations and NTBs, prepare joint investment proposals and attract investments, both private FDIs and IFIs (EBRD, ADB, EIB, AIIB). - Develop and market regional agriprocessing branded products.

Notes:
EBRD = European Bank for Reconstruction and Development
EIB = European Investment Bank

Literature

Abduvohidov, Bakhtiyor. (2007). Value chain analysis for apricots, grapes and tomatoes in the Northern Tajikistan. *Market Plus*.

ACLED. (2020). Central Asia update. Retrieved from https://acleddata.com/2020/09/24/central-asia-data-update-2018-2020/

ADB. (2014, May). Analysis of Informal Obstacles to Cross-Border Economic Activity in Kazakhstan and Uzbekistan. Retrieved from https://www.adb.org/publications/analysis-informal-obstacles-cross-border-economic-activity-kazakhstan-and-uzbekistan

ADB. (2020). A Road Map for Shymkent–Tashkent–Khujand Economic Corridor Development. Retrieved from https://www.adb.org/publications/road-map-shymkent-tashkent-khujand-corridor

ADB. (2020). CAREC projects portfolio. Retrieved from https://www.carecprogram.org/?page_id=13630

ADB. (2020). CAREC Transport Strategy 2030, Retrieved from https://www.carecprogram.org/?publication=carec-transport-strategy-2030

ADB. (2014). CAREC Transport and Trade Facilitation Strategy. Retrieved from https://www.carecprogram.org/?publication=carec-transport-and-trade-facilitation-strategy-2020

ADB. (2019). CAREC Integrated Trade Agenda 2030 and Rolling Strategic Action Plan 2018–2020. Retrieved from https://www.carecprogram.org/?publication=carec-trade-agenda-2030-strategic-action-plan

ADB. (2015). CAREC Corridor 2 (Pap–Namangan–Andijan) Railway Electrification Project, Economic Analysis. Retrieved from https://www.adb.org/projects/48025-004/main

ADB. (2014, October). Central Asia Regional Economic Cooperation: Working with the Private Sector in Trade Facilitation. Retrieved from https://www.adb.org/sites/default/files/project-document/151093/47380-001-tar.pdf

ADB. (2007, August). Cross Border Trade within Central Asia, World Bank for CAREC. Retrieved from http://www.carecprogram.org/uploads/docs/Cross-Border-Trade-CAREC.pdf

ADB. (2005). Uzbekistan, Private Sector Assessment. Retrieved from https://www.adb.org/sites/default/files/institutional-document/32223/uzb-psa.pdf

ADB. (2013). Trade Policy Strategic Action Plan for 2013–2017. CAREC. Retrieved from http://www.carecprogram.org/uploads/events/2013/SOM-Oct-KAZ/002_107_212_Trade-Policy-Strategic-Action-Plan.pdf

ADB CAREC Institute. (2020). Strengthening Cross Border Community Collaboration in the CAREC region, Scoping Study. Retrieved from https://www.adb.org/sites/default/files/publication/662071/cross-border-community-collaboration-carec.pdf

ADB CAREC Institute. (2019). Regional Integration Index, Interpretation and Regional Perspectives, 2006-2019. Retrieved from https://www.carecinstitute.org/wp-content/uploads/2019/12/CI-CRII-Interpretation-and-Policy-Perspective-27-Dec-2019.pdf

Asia Plus. (2021, April). Tajik, Uzbek and Kyrgyz border regions vow to boost economic cooperation. Retrieved from https://asiaplustj.info/en/news/tajikistan/economic/20210423/tajik-uzbek-and-kyrgyz-border-regions-vow-to-boost-economic-cooperation

Baker, Nicolas. (2011). The Ferghana Valley: A Soviet Legacy Faced with Climate Change. *ICE Case Study Number 252*. Retrieved from http://mandalaprojects.com/ice/ice-cases/ferghana.htm

Borthakur, Anchita. (2017). An Analysis of Conflict in the Ferghana Valley. *Asian Affairs, volume 2.* Retrieved from https://www.tandfonline.com/doi/abs/10.1080/03068374.2017.1313591?scroll=top&needAccess=true&journalCode=raaf20&

British Embassy Bishkek, Saferworld. (2015, April). Democratization, Conflict Prevention, and Increase Insecurity of Local People: Lessons from Community Security Approaches in the Ferghana Valley.

Retrieved from https://www.saferworld.org.uk/downloads/pubdocs/163---lessons-learned-from-csa-in-ferghana-valley---english.pdf
Burunciuc, Lilia et al. (2019). Encouraging transformations in Central Asia. *Brookings institution*. Retrieved from https://www.brookings.edu/blog/future-development/2019/12/13/encouraging-transformations-in-central-asia/
Caspian Policy Institute. (2020). Uzbekistan Shows that Business Development is the Way forward for Ferghana Valley. Retrieved from https://www.caspianpolicy.org/uzbekistan-shows-that-business-development-is-the-way-forward-for-the-ferghana-valley/
Dalbaeva, Alina. (2018, March). End the Weaponisation of Water in Central Asia. *International Crisis Group*. Retrieved from https://www.crisisgroup.org/europe-central-asia/central-asia/kazakhstan/end-weaponisation-water-central-asia
Economic Cooperation Organization, International Road Transport Union. (2014). Regular Monitoring of Trucks: New Eurasian Transport Land Initiative, Retrieved from https://www.gica.global/resources/eco-regular-monitoring-trucksnelti-3-final-report
EU. (2019). Central Asia Strategy. Retrieved from https://www.consilium.europa.eu/en/press/press-releases/2017/06/19/conclusions-central-asia/
Eurasianet. (2021). Kyrgyzstan, Uzbekistan Sign Deal to End Border Disputes. Retrieved from https://eurasianet.org/kyrgyzstan-uzbekistan-sign-deal-to-end-border-disputes
Gavrilis, George. (2017). Central Asia's Borders: The Next Twenty-Five Years. *Policy Memo. Washington, DC: PONARS Eurasia*. Retrieved from https://www.ponarseurasia.org/central-asia-s-borders-the-next-twenty-five-years .
GIZ, Euromonitor International. (2017, October). Analysis of Priority Markets for diversification of export of products from Central Asia, Fresh horticultural products: market access strategies and recommendations. Retrieved from https://www.giz.de/en/downloads/GIZ%20-%20Euromonitor-%20Central%20Asia%20Trade%20Facilitation_Fresh%20Fruit%20report%20-%20Eng_s.pdf

Government of Uzbekistan. (2018, 2020). Obodi Kishloq and Obodi Mahalla program. Retrieved from https://lex.uz/docs/5352592
Government of Osh province, Kyrgyz Republic. (2020). Osh province regional development program. Retrieved from http://oshcity.kg/index.php/ru/kmaterialdar-ru/item/2810-v-oshe-v-ramkakh-proekta-regionalnoe-ekonomicheskoe-razvitie-oshskoj-oblasti-i-goroda-osh-zaplanirovany-raboty-po-razvitiyu-turizma-i-vosstanovleniyu-gorodskoj-infrastruktury

Imanova, Navbahor. (2020). Uzbekistan Promotes Connectivity to Enhance its Regional Leadership. *Voice of America*. Retrieved from https://www.voanews.com/south-central-asia/uzbekistan-promotes-connectivity-enhance-its-regional-leadership
IMF. (2019). Republic of Uzbekistan, Article IV consultations. *IMF country report*. Retrieved from https://www.imf.org/en/Publications/CR/Issues/2019/05/09/Republic-of-Uzbekistan-2019-Article-IV-Consultation-Press-Release-and-Staff-Report-46884
ITF. (2019). Enhancing Connectivity and Freight in Central Asia. *International Transport Forum Policy Papers, No. 71. Paris: International Transport Forum.* Retrieved from https://www.itf-oecd.org/sites/default/files/docs/connectivity-freight-central-asia_2.pdf
Khidirov, Dilshod et all. (2015). Uzbekistan Strengthening the Horticulture Value Chain. World Bank. *Retrieved from* https://openknowledge.worldbank.org/handle/10986/21495

Kopakar, Rashmini. (2019). Issues and Dynamics of the Fergana Valley: Regional Implications. *Vivekananda International Foundation*. Retrieved from

https://www.vifindia.org/monograph/2019/april/08/issues-and-dynamics-of-the-fergana-valley-regional-implications
Kreutzman, Herman (2020). From Upscaling to Rescaling: Transforming the Fergana Basin from Tsarist Irrigation to Water Management for an Independent Uzbekistan. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-18971-0_9
Kurmanalieva, Gulzana. (2019, February). Tajikistan and Kyrgyzstan, endless border conflicts, *EU, Central Asia and the Caucasus in the International System (EUCACIS).* Retrieved from https://www.cife.eu/Ressources/FCK/EUCACIS_Online%20Paper%20No%204%20-%20Kurmanalieva.pdf
Mamatova, Diana. (2018). Grassroots Peacebuilding: Cross-Border Cooperation in the Ferghana Valley, *Central Asia fellows paper, Central Asia Program, George Washington University*. Retrieved from https://www.centralasiaprogram.org/grassroots-peacebuilding-cross-border-cooperation-ferghana-valley
Microfinance Center. (2011). Research on Agriculture Value Chains in Tajikistan. Retrieved from https://mfc.org.pl/wp-content/uploads/2016/04/Value-Chains-research-report-Tajikistan-final.pdf
Murzakulova, Asel, and Irene Mestre. (2016). Natural Resource Management Dynamics in Border Communities of Kyrgyzstan and Tajikistan. *Bishkek, University of Central Asia*. Retrieved from https://www.ucentralasia.org/Content/Downloads/web-No1-MSRI-Research%20Paper.pdf
OECD. (May, 2013). Promoting Investments and Job Creation in Central Asia through Business Linkage Programs. OECD handbook. Retrieved from https://www.oecd.org/globalrelations/BusinessLinkageProgrammes.pdf
OECD. (2020). Supporting Firm Creation and Growth through Business Development Services in Kyrgyzstan. *Paris: OECD Publishing.* Retrieved from https://www.oecd.org/eurasia/competitiveness-programme/central-asia/Supporting-Firm-Creation-and-Growth-through-Business-Development-Services-in-Kyrgyzstan-ENG.pdf
Ostrom, Elinor. (2007). Governing the Commons, Cambridge University Press, 2015
Panier, Bruce. (2016). Mapping Conflict Along Ferghana Valley's Borders. Retrieved from https://www.rferl.org/a/majlis-podcast-mapping-conflict-along-ferghana-valley-borders/27651487.html
Pena-Ramos, Jose Antonio et all (2021). Water Conflicts in Central Asia: Some Recommendations on the Non-Conflictual Use of Water. *MDPI.* Retrieved from https://www.mdpi.com/2071-1050/13/6/3479
Radchenko, Lilia (2016, April). Impact of climate change on the contribution of second order tributaries to the water balance of the Ferghana Valley. Retrieved from https://www.researchgate.net/publication/344567975_Impact_of_climate_change_on_the_contribution_of_second_order_tributaries_to_the_water_balance_of_the_Ferghana_Valley
Saroj Kumar Jha. (2015). Twenty first century Silk Road: Trade Integration in Central Asia: overview of trade policy developments in Central Asia. *Word Bank.* Retrieved from https://www.wto.org/english/thewto_e/acc_e/Session1SarojKumarJha12stCenturySilkRoad.pdf
Startfor. (2013, October). Central Asia: The Complexities of the Fergana Valley. Retrieved from https://worldview.stratfor.com/article/central-asia-complexities-fergana-valley
State Statistics Committee, Kyrgyz Republic. (2010-2020). Selected publications. Retrieved from www.stat.kg
State Statistics Committee, Republic of Tajikistan. (2017-2020). Selected publications. Retrieved from www.stat.tj
State Statistics Committee, Republic of Uzbekistan. (2018-2020). Selected publications. Retrieved from www.stat.uz
Swiss Development Cooperation. (2016). Swiss Cooperation Strategy in Central Asia, 2017-2021. Retrieved from https://www.eda.admin.ch/dam/deza/en/documents/laender/swiss-cooperation-strategy-central-asia-2017-2021_en.pdf

Takashi, Yamano, Hal, Hill, Edimon, Ginting, and Jindra, Samson. (2019, September). Kyrgyz Republic, Improving Growth Potential. *ADB*. Retrieved from https://www.carecinstitute.com/wp-content/uploads/2020/03/ADB-Kyrgyzstan-Improving-Growth-Potential-Sep-2019-1.pdf
Toktomushev, Kemel (2017). Promoting Social Cohesion and Conflict Mitigation: Understanding Conflict in the Cross-Border Areas of Kyrgyzstan and Tajikistan. *University of Central Asia, working paper*. Retrieved from https://ucentralasia.org/Content/Downloads/UCA-IPPA-WP40-Promoting%20Social%20Cohesion%20and%20Conflict%20Mitigation-Eng.pdf

UNEP, OSCE, NATO, OECD. (2005). Environment and Security: Transforming Risks into Cooperation, Central Asia, Osh Khujand. Retrieved from https://www.grida.no/publications/261
UNAMA, GRIDA. (2018). Land issues in the Ferghana Valley. Retrieved from https://www.grida.no/resources/7386
UNDP. (2012). The Economics of Land Degradation for the Agriculture Sector in Tajikistan: A Scoping Study, *UNDP-UNEP Poverty-Environment Initiative in Tajikistan*. Retrieved from https://wedocs.unep.org/xmlui/handle/20.500.11822/33636
UNFAO. (2018). Kyrgyzstan Value Chain Gap analysis. Retrieved from http://www.fao.org/publications/card/en/c/I9199EN/
UK DFID. (2014). Stabilization Program in Central Asia, 2015-2018. UK Government publishing service. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842427/Central_Asia_Programme_Summary.odt

USAID. (2018). Climate Risk Profile: Central Asia. *Washington, DC: United States Agency for International Development*. Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/2018-April-30_USAID_CadmusCISF_Climate-Risk-Profile-Central-Asia.pdf
Usigbe, Leon. (2020). Drying Lake Chad gives rise to crisis. Africa Renewal. (2019. Retrieved from https://www.un.org/africarenewal/magazine/december-2019-march-2020/drying-lake-chad-basin-gives-rise-crisis
Vakulchuk, Roman, Imamnazarov, Farrukh. (2014, May). Analysis of Informal Obstacles to Cross-Border Economic Activity in Kazakhstan and Uzbekistan. *ADB Working paper*. Retrieved from https://www.adb.org/publications/analysis-informal-obstacles-cross-border-economic-activity-kazakhstan-and-uzbekistan
World Bank. (2019, July). Uzbekistan, Country Private Sector Diagnostic. Retrieved from https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications/cpsds
World Bank. (2012). Uzbekistan: strengthening the horticulture value chains. retrieved from https://documents1.worldbank.org/curated/en/396111468301526337/pdf/942810WP0P12920iculture0value0chain.pdf

World Bank. (2020). Uzbekistan: Agriculture modernization project. *Project Appraisal Document*. Retrieved from https://documents1.worldbank.org/curated/en/434601585015259716/pdf/Uzbekistan-Agriculture-Modernization-Project.pdf
World Bank. (2019). A Proposal in Support of Increased Coordination and Economic Integration among Central Asia 6 Countries: Summary and Overview, internal document.
World Bank. (2018). Central Asia Road Links Program, Phase 1-4, 2013-2020. Project Appraisal Documents, Retrieved from https://www.worldbank.org/en/news/feature/2018/06/27/connecting-communities-across-central-asia-peoples-voices
World Bank. (2019, July). China 2030 – Opportunities for Central Asian Agriculture. *Washington, DC*. Retrieved

from https://openknowledge.worldbank.org/handle/10986/33115

World Bank. (2020). Strengthening Cross-Border Value Chains: Opportunities for India and Bangladesh. *Development Knowledge and Learning*. Retrieved from https://openknowledge.worldbank.org/handle/10986/32719
World Bank. (2019-2020). Listening to Tajikistan, Citizens of Uzbekistan. *Poverty Analysis*. Retrieved from https://www.worldbank.org/en/country/uzbekistan/brief/l2cu ; https://www.worldbank.org/en/country/tajikistan/brief/listening2tajikistan

World Bank. (2019). Regional Engagement Framework for Central Asia. Internal document
World Bank. (2020). Supporting Africa's Recovery and Transformation: Regional Integration and Cooperation Assistance Strategy Update for the period of 2021-2023. Retrieved from https://documents1.worldbank.org/curated/en/249911623450779120/pdf/Supporting-Africa-s-Recovery-and-Transformation-Regional-Integration-and-Cooperation-Assistance-Strategy-Update-for-the-Period-FY21-FY23.pdf
World Bank. (2020). Logistical Performance Indicators. Retrieved from https://lpi.worldbank.org/
World Bank. (2020). Doing Business Indicators, Trading across border indicators. Retrieved from https://www.doingbusiness.org/en/data/exploretopics/trading-across-borders
World Bank. (2014, May). Central Asia, Opportunities and Challenges for Trade. *Internal analytical paper*
World Bank. (2019). Uzbekistan Ferghana Valley Enterprise Development Project. *Project Appraisal Document*. Retrieved from https://projects.worldbank.org/en/projects-operations/project-detail/P166305
World Bank. (2019). Uzbekistan Prosperous Villages Project. Project Appraisal Document. Retrieved from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/968541574046079752/uzbekistan-prosperous-villages-project
WFP. (2017). Climate Risks and Food Insecurity in Tajikistan. *World Food Program*. Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000015482.pdf
Правительство Республики Узбекистан. (2020). О мерах по комплексному социально-экономическому развитию Сохского района Ферганской Области в 2020-2021 годах. Retrieved from https://lex.uz/ru/docs/4938449
Платон Азия. (2020). Ферганская долина, Очаг тлеющих конфликтов. Retrieved from https://platon.asia/analitika/ferganskaya-dolina-ochag-tleyushchikh-konfliktov

Annex 1: Barriers to Developing Horticulture Value Chains in Central Asia

- Production/post-harvest/marketing level constraints including limited production, fragmentation, poor quality and high value loss for fruit producers; lack of cold chain and storage capacity, informality, limited knowledge, poor standards below international, and lack of access to finance.
- Technical barriers/institutional constraints: food safety; export promotion; agrologistics infrastructure; export related administrative barriers; and so on.
- The problems of disconnected markets and poor knowledge of external markets (Vakulchuk, Irnazarov, 2014).[34]

[34] Vakulchuk et al, (2014). Overcoming informal trade barriers in Central Asia. ADB. Retrieved from https://aric.adb.org/blog/overcoming-informal-trade-barriers-in-central-asia

Annex 2: Stakeholder Mapping—Government and Development Partner Activities in the Fergana Valley

Government

Table 2: Government Activities in the Fergana Valley

Country/province	Strategic framework and priority areas
Uzbekistan (Fergana, Namangan, and Andijan provinces)	Obod Qishloq (Prosperous Village) and Obodi Mahalla (Prosperous Neighborhood) programs were approved in 2018 and amended in 2021 by the Government of Uzbekistan. The program, launched officially on 1 April 2018, is intended to promote development in rural areas by building new, rehabilitating existing infrastructure, and creating job opportunities. While Obod Qishloq is a national program, the GoU is targeting the Fergana Valley for the first phase of the proposed project—specifically, Fergana, Andijan, and Namangan provinces. In 2021, the government allocated an additional 21 billion Soms to the program. In addition, the World Bank and ADB allocated up to 485 billion Soms to support rural infrastructure development and rehabilitation in the areas covered by the program, including in the Fergana Valley.[35]
Tajikistan (Sughd province)	Mid Term Socioeconomic Development program of the Sughd province, Tajikistan, 2016-2020. The program is aligned with the National Development Strategy 2015-2030 and Tajikistan Mid Term Development Strategy, 2015-2020 and aimed to promote primarily industrial development objectives, and achieve energy, food security, job creation, and enhanced connectivity.[36]
Kyrgyzstan (Batken, Osh, and Jalalabad provinces)	Kyrgyzstan's national development strategy 2018-2040 includes the following specific regional objectives for the southern provinces (Osh, Batken, and Jalalabad) in the Fergana Valley:[37] 1. Batken province: The main public investment should be directed to the restoration and construction of irrigation infrastructure. Also, special investments should be allocated to the construction and rehabilitation of transport and energy infrastructure, and border management and demarcation. 2. Osh province: As the city of Osh has the potential to become an important regional center of the Fergana Valley owing to its favorable location as a transit hub, investments are required into its road and air transport connectivity and social infrastructure, including education and healthcare facilities. 3. Jalalabad province: Public investment should be geared towards developing electric power generation building on the hydropower potential in the region, including small hydropower. Other priorities include transport infrastructure to enable better connectivity with other regions of the country, and the outside world.

[35] Uzreportnews. (2018). Программа Ободи Кишлок и Ободи Махалла. Retrieved from https://uzreport.news/economy/na-realizatsiyu-programm-obod-kishlok-i-obod-mahalla-videlyat-21-trln-sumov

[36] МЭРТ РТ, Программа социально экономического развития Согдийской области, РТ, retrieved from https://medt.tj/ru/strategiy-i-programmi/programmi-razvitiya-oblastey-i-regionov

[37] Government of the Kyrgyz Republic, National Development Program, 2018-2040. Retrieved from http://mineconom.gov.kg/storage/directs/documents/209/15421950795bec078718fff.pdf

International Development Partners

Development partners and donor priorities in CA (regional portfolio only) are clustered in trade and investment, transport, water and environment, and energy with the largest share of investments allocated into energy and transport.[38] Combined with the opening up of Uzbekistan, donor priorities are shifting to facilitate the connectivity of CA both internally and to distant markets. Overall progress in development cooperation requires better coordination among development partners, stronger commitment and leadership of the Central Asian governments towards regional cooperation, and the harmonization of national policies, with support from development partners and IFIs. As an important observation, the absence of an acceptable institutional framework owned and managed by Central Asian governments remains a stumbling block to regional coordination and joint regional project implementation.[39]

Table 3: Development Partner Sector Priorities in Central Asia (US$ million)

	Energy	Transport and trade	Water and environment	Investment (trade) and PSD	ICT	DRM	Multisector
AsDB	51	201					3
EBRD	301	487.2					
World Bank	527.5	350	88		201	3.7	2.5
Switzerland			23.1				2.3
UK DFID	46.8			65.1			
USAID	48		9.5	24			24
IsDB	250	382.5					
EU		207	11	206			5
AIIB		27.5					
JICA		128.6					19.1
UNDP		5.5					3.7
Total	**1,224.30**	**1,789.30**	**131.6**	**295.1**	**201**	**3.7**	**59.6**

[38] Marsha Olive, Sobir Kurbanov (2019), inputs for the Regional Engagement Framework in Central Asia, World Bank

[39] Bilahari Kausikan, S. Frederick Starr, and Yang Cheng. (2017, July). Central Asia: All Together Now, *The American Interest,* retrieved from https://www.the-american-interest.com/2017/06/16/central-asia-all-together-now/

Figure 12: Development Partner Sector Priorities in Central Asia (US$ million)

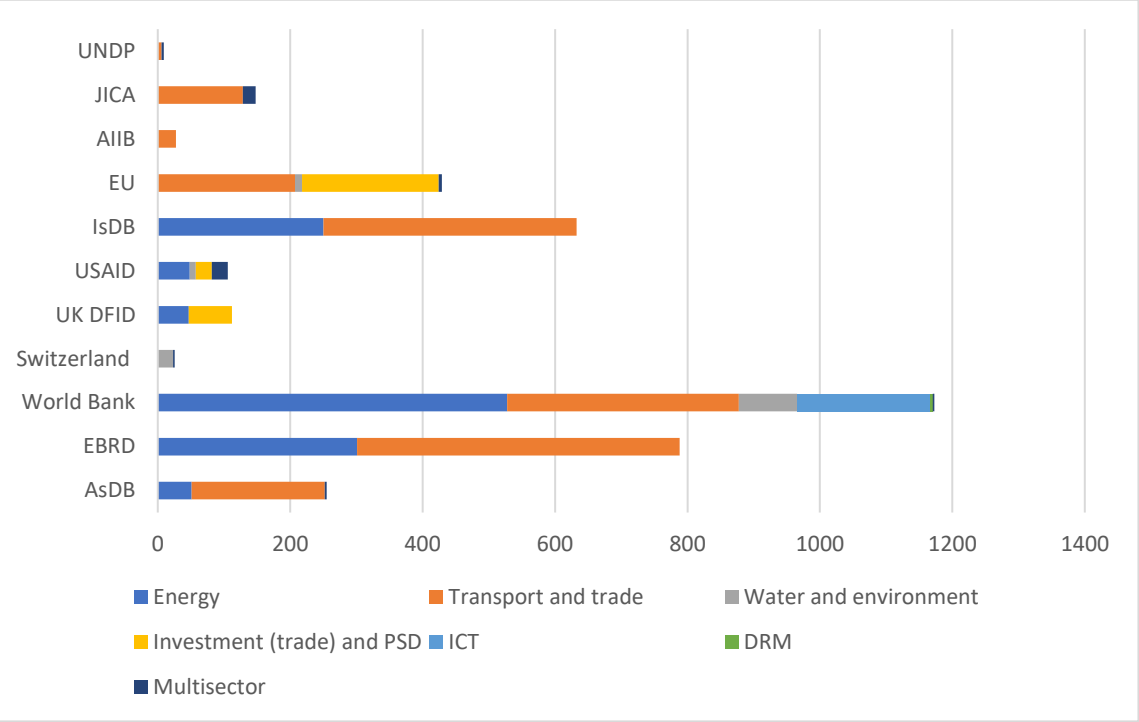


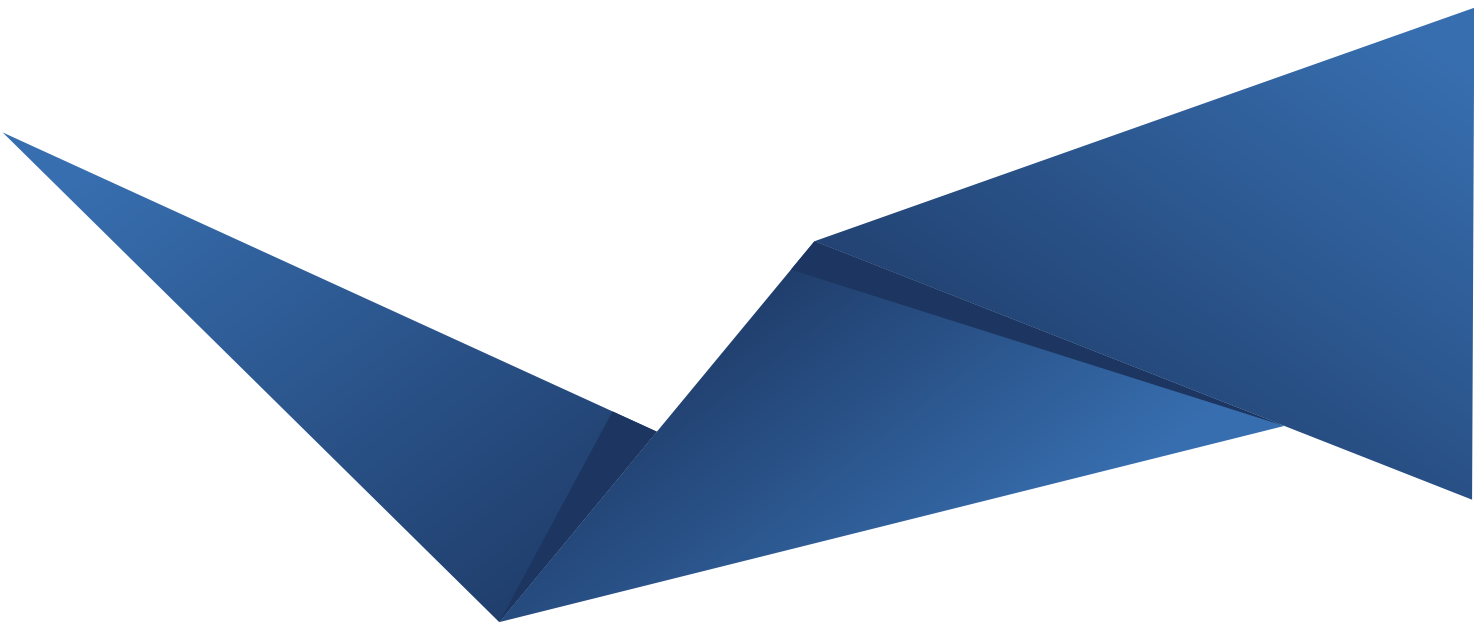
Table 4: Development Partner Engagement at Regional Level in Central Asia including the Fergana Valley

Development Partner	**Portfolio** Recently closed and active projects, 1 March 2019	**Focus Areas**
Asian Development Bank	US$255 million, of which US$24 million in TA	ADB promotes greater connectivity in energy and transport (seen as sectors of comparative advantage). The bulk of ADB regional transport projects are implemented through CAREC. Most are in the form of TA rather than cross border lending.[40]
European Bank for Reconstruction and Development	US$788.2 million (marginal TA components)	EBRD is concentrated in energy and transport (roads and mostly aviation), SME development and lending to public utilities (such as water supply).
World Bank	US$1.173 billion, of which US$18 million in TA	The portfolio includes transboundary water, energy trade, transport ICT, environment, and DRM. Dominant sectors for lending are electricity, transport, and ICT. In the Fergana Valley, largest share of investments concentrated in Uzbekistan aimed to support rural socioeconomic investments (Obodi Kishloq program), SME and enterprise development. In Tajikistan and Kyrgyzstan parts of the FV, the WB investments are allocated to irrigation, transport rehabilitation, rural socioeconomic investments, and regional development through tourism.
Switzerland (SECO and SDC)	US$25.4 million	The Swiss approach aims to bring countries together in a spirit of solidarity to tackle water, energy, and food related challenges (Swiss Cooperation Strategy in CA, 2017-2021). The transboundary water program (focused on the Fergana Valley) promotes Swiss expertise in integrated water resource management.
United Kingdom (FCDO, former DFID)	GBP 74.3 million (US$112 million)	DFID regional portfolio is part of a wider Asia program aimed to promote connectivity of CA and South Asia in transport and trade, also as part of stability and security in Afghanistan. At national level, FCDO/DFID is focused on Tajikistan and Kyrgyzstan through largely bilateral projects aimed to promote good

[40] ADB. (2021). CAREC Project portfolio. Retrieved from https://www.carecprogram.org/?page_id=13630

		governance (PFM transparency) and private investments. Through its conflict and stability fund, UK FCDO is investing in small scale conflict-sensitive local community investments in the FV.
USAID	US$105 million, of which US$24 million in TA (CASA-1000 secretariat)	Regional programming supports the US Government's New Silk Road and C5+1 policy priorities to foster greater stability and prosperity across the region. Focus areas—electricity, trade and investment, water, and civil society integration—aim to increase connectivity within the Central Asian region and between the economies and peoples of South and Central Asia.
Islamic Development Bank	US$632.5 million	IsDB is limited to the co-financing of electricity (CASA-1000) and CAREC transport projects
European Union	Euro 374.7 million (US$431.3 million)	The EU program (both current and under preparation) is focused primarily on private sector development/investment promotion, transport and transit, environment and water, and border security.
Eurasian Development Bank	0	EDB does not support regional projects in CA or elsewhere. At national level, the primary focus is on energy, transport, and infrastructure projects in Eurasian countries, particularly Tajikistan, Kyrgyzstan, and Kazakhstan.
Asian Infrastructure Investment Bank	US$27.5 million	The Dushanbe–Uzbekistan Border Road Improvement Project, co-financed with EBRD, is the only regional project, while national lending comprises one project in Tajikistan (Nurek Hydro Rehabilitation). In December 2018 the Board approved development of an Asia environmental, social, and governance (ESG) enhanced credit managed portfolio of US$500 million that comprises corporate bonds in Asian infrastructure and other productive sectors. It launches an ESG markets initiative, under an appointed asset manager, to invest in private sector projects and build capacity with market participants in emerging Asia.
Japan International Cooperation Agency	US$147.7 million	JICA regional projects are concentrated in cross border transport around the Tajikistan–Kyrgyzstan and Tajikistan–Afghanistan

		borders; rehabilitation of airports and air traffic systems; cross border trade/transit; livelihoods; and agriculture projects around the Tajikistan-Afghanistan border, implemented in partnership with UN agencies. At national level, JICA is currently active in Uzbekistan, Tajikistan, and Kyrgyzstan with grants and TA projects in a broad array of sectors.
United Nations Development Program (UNDP)	US$9.2 million	UNDP focuses on community based cross border trade and livelihood improvement (along the Tajikistan–Kyrgyzstan and Tajikistan–Afghanistan border), and related interventions (such as capacity building and microprojects) as part of its multiphase Aid for Trade program. Apart from core funds, UNDP programs are traditionally largely co-financed by donors (such as Russia, Finland, Japan). At national level, UNDP has an active portfolio in all countries of CA except Kazakhstan. In the Fergana Valley, UNDP projects cover a broad range of themes in both border regions—peacebuilding and social cohesion, economic development and livelihood, security and rule of law, and climate change and environment.
Germany (GIZ, BMZ, KfW)	N/A	Germany is widely present with regional projects in Central Asia, broadly focused on trade facilitation, water, livelihoods, and rule of law. Bilateral aid at national level is as follows: - BMZ: Euro 83.3 million to Tajikistan, Kyrgyzstan, and Uzbekistan - KfW: Euro 50 million to Tajikistan, Kyrgyzstan, and Uzbekistan - GIZ (not reported) - In the Fergana Valley, GIZ supports the range of innovative projects to develop agriculture value chains.



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