



Dushanbe, Tajikistan. (Picture credit:
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Report of proceedings, list of participants, and policy recommendations

Turning brain drain into brain circulation in Central Asia

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Gharleghi (2020)

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Turning brain drain into brain circulation in Central Asia

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Report of proceedings, list of participants, and policy recommendations

Muzaffar Olimov, Jürgen Grote, Behrooz Gharleghi

Foreword

Originally, the idea for this initiative arose from a meeting between Jürgen Grote (Dialogue of Civilizations [DOC] Research Institute) and Kairat Itibaev in autumn 2017. When Grote held a Marie Curie Chair in Public Policy at Charles University in Prague (2006–10), Itibaev was one of his students from Central Asia. In the meantime, Itibaev was registered for an additional degree at a Berlin-based university where he was working on issues related to labour migration and ‘brain drain’ in the Kyrgyz Republic. When discussing that topic with him and with Behrooz Gharleghi, a colleague, economist, and senior researcher at DOC Research Institute, it soon became clear that this type of problem perfectly fit the exigencies of our institute. Equally clear was the fact that more extensive comparative analysis would be required from an economic and socio-political standpoint to gain deeper insight. Indeed, labour migration and brain drain concern all countries in Central Asia, not

only Kyrgyzstan. Supported by the then-head of the fundraising department at the DOC Research Institute, Carl Drexler, we began to evaluate the prospects of receiving funding for a research endeavour involving the entire region. Given the vast expertise in Central Asia's scholarly community but scarce opportunities to engage in dialogue, such a project would have to bring together participants from relevant countries to discuss potential strategies to overcome the negative effects of brain drain and possibly initiate a virtuous cycle of 'brain circulation'.

After in-depth study on the topic (Grote and Gharleghi were both newcomers to the field), we started looking for a local partner in the region and soon identified Professor Muzaffar Olimov of the Tajik National University (TNU) in Dushanbe, Tajikistan. Olimov was not only ideally placed but had studied labour migration for many years in countries across Central Asia. The three of us subsequently drafted an application which was then sent to the Volkswagen (VW) Foundation, a prestigious organisation that was running a Central Asian research programme. We eventually obtained a grant from VW to organise an international symposium in Dushanbe. Next, we shared our text online and published a call for applications via several international conferences and event platforms. We soon received some 60 declarations of interest together with brief abstracts of papers and presentations. In selecting the most promising, we tried to maintain a balance in terms of nationality, age, and gender. We also aimed to choose a mix of applications from leading scholars in the field as well as early career researchers. We finally achieved our goals by mid-October 2018. We received a high number of Tajik applicants given that the conference would take place in Dushanbe. We also received many enquiries from scholars in other parts of the region. Candidates came from Tajikistan, the Kyrgyz Republic, Kazakhstan, and Uzbekistan.

While sending invitations from our Berlin offices, Olimov and his team also oversaw the logistics, arranged hotels, prepared handouts, identified professional translators, and reserved an ideal

conference site on the TNU premises. Grote and Gharleghi anticipated an intriguing experience when leaving Berlin for Dushanbe; none of us had ever visited Central Asia. Our expectations were more than met upon arrival. Thanks to Olimov's work and the efforts of members in DOC's Moscow office (Professor Alexey Malashenko, Roman Okhotenko, and Maxim Mikheev), the event was more than perfect. The university's main entrance was adorned with a large banner announcing our event, the lecture theatre was set up beautifully, all participants had arrived on time and were booked into their hotels, and lunch and dinner arrangements left nothing to be desired.

In retrospect, the most rewarding aspect of the symposium was the overwhelming response from conference participants. We were told while many events had addressed labour migration, our symposium was the first to promote true knowledge exchange embracing the entire region. Our three days in Dushanbe were invaluable in establishing networks across borders, age, gender, and fields of scholarly expertise. We would especially like to express our gratitude to the VW Foundation for having made this event possible and, of course, to the lively debate and contributions from conference participants. There was a unanimous sense that something similar should be organised in the near future – this time perhaps more focused on specific aspects of the brain drain phenomenon, such as the importance of remittances in countries of origin or the roles of migrant diasporas in receiving countries.

Regarding the texts from these proceedings, extensive reports from key speakers and from participants who supplied full papers or presentations are summarised in Part 1. An overview of the event appears in Part 2, followed by a policy brief and recommendations based on the preceding contributions and additional literature in Part 3.

Part 1: Summary of full papers

Lutfiya Rajabova

Welcoming address

On behalf of her country's parliament, Lutfiya Rajabova expressed her appreciation to the organisers of the symposium and underlined that the meeting was indeed addressing a pressing topic: the migration of intellectual powers, which has been cited in the scientific and political literature as "intellectual migration", "brain drain", "mental exodus", and "exodus of the mind", has become an important social, economic, and political issue for scholars and politicians.

Notably, the problems associated with intellectual migration relative to the development and security of modern society lie at the intersection of two major issues: science and security on one hand and migration and security on the other. Regarding the first problem, society's current capacity will likely be an important factor in national security.

The drivers of migration are diverse. Research into this problem suggests that the roots of labour migration in Tajikistan have been with the country long before independence. In the Soviet period, Tajikistan was the agrarian republic with the highest population growth and faced a shortage of jobs and regular wages, especially for large families. During this time, people from the mountainous regions, who were mostly engaged in seasonal work, travelled to the cities of the republic and abroad (e.g., the Russian Federation, Uzbekistan, and Kazakhstan) to earn a living.

An analysis of the current state of scientific institutions, enterprises, and organisations reveals that the Republic of Tajikistan's losses in this respect are not insignificant. However, no reliable statistics are available to reflect the extent of intellectual force that left the country during independence.

According to the Federal State Statistics Service of Russia, from 2007 to 2014, only 227 candidates and 112 doctors were registered as permanent residents of Tajikistan; this would obviously affect the country's intellectual security. These relatively meagre figures represent a grave loss to the nation's scientific and intellectual resources.

The president of the Republic of Tajikistan, His Excellency Emomali Rahmon, has repeatedly emphasised the importance of intellectual resources: "Our main means of defence is not rockets or tanks, but the intellectual power of our nation." At a meeting with youth in May 2013, he stated, "The 21st century saw the progress and wealth of the countries, not by their population and natural resources, but by their intellectual abilities, the level of awareness and access to modern technology."

The country's president, government, and parliament shall take the required steps to develop and maintain intellectual resources, which serve as the guarantor of the development of each state and nation and the most important factor in the country's security. It is also necessary to leverage international experience to enact effective measures to attract specialists who have left their fields for various reasons; this is one factor that will contribute to the protection of the Republic of Tajikistan's intellectual security.

Globalisation processes and the challenges of the modern world have compelled each country to pay close attention to the protection of spiritual values, including nations' intellectual resources. Studying the protection of nations' intellectual potential is of particular importance to the sustainable development and consolidation of state security and independence.

In the Central Asian region, we share common interests with all countries in the basin; therefore, we have the potential to reverse brain drain in the region. Our long and coexisting history in the

Soviet Union, and earlier in Central Asia, makes this opportunity even more favourable. Learning from each other's experiences will provide a solid basis for enhancing professional skills.

Rajabova underlined her confidence that the symposium represented an outstanding occasion for leading scholars and experts to exchange views, including by offering novel suggestions to find the best ways to change the mindset around brain drain. She concluded by wishing all participants much success in the debate.

Jan-Peter Olters**Benefiting from emigration and fostering brain gain**

Representing the World Bank in Tajikistan, Jan-Peter Olters opened his talk by pointing out that Kyrgyzstan and Tajikistan are the two most remittance-reliant economies in Central Asia – with the first having a share of remittances in GDP of 33% and the second of 29%. Remittances do not exceed 5% of national GDP in any of the other three countries in the region. In Tajikistan, remittances peaked at 138% of GDP in 2007 and have declined steadily since. Financial transfers by Tajik workers who emigrated to the Russian Federation totalled between \$350m (2010) and nearly \$1,400m (2013), while the current value is at roughly \$640m. The bulk of the total emigration share is distributed among the Russian Federation (73%), Kazakhstan (8%), and Turkmenistan (6%). Germany, Ukraine, Afghanistan, and Uzbekistan still receive between 3% and 5% of Tajik emigrants; all other countries tend to play insignificant roles in the absorption of Tajik migrants. The share of migrants in the country's overall population is approximately 7.2%, while the average amount transferred per migrant is roughly \$3,505 (i.e., 435% of the country's per capita income).

With respect to the overall situation, Olters hypothesised that brain drain is a symptom, not a cause, of an underperforming economy. It is a mix of deficiencies in social security and family support; lack of access to and quality of education; a poor business climate and entrepreneurship; lack of employment opportunities; and large wage discrepancies between countries of origin and destinations.

Olters then distinguished between the risks of permanent migration and the opportunities associated with temporary migration. Concerning the risks, he argued that massive, sustained, unilateral, and long-term brain drain would deplete a country's young and skilled labour force, ultimately undermining (a) a country's investment in human capital; (b) the quality of public services

(including education and health); and (c) the efficiency of public administration and the attractiveness of an economy's business climate. In terms of the potential benefits of temporary migration, Olters mentioned that migration from remote, rural areas with limited education and employment opportunities could promote migrants' human capital development while serving as a social buffer for families and supporting efforts aimed at encouraging 'catch-up-growth'.

Yet brain drain can also spur opportunities, namely in foreign education; such education often creates lasting international networks. Because learning something is easier than inventing it, fast learners can rapidly gain ground on leading economies. Sustainable, high growth is catch-up growth. Overall, the global economy is an essential resource in this respect. The second dimension in which brain drain-related benefits are especially noteworthy is the business climate: there is an emergent focus on business climate challenges as increasing fiscal pressure places efforts to broaden the tax base at the centre of economic policymaking. Moreover, new export opportunities may emerge for large, underserved markets (e.g., the opening of Uzbekistan, the new Silk Road, and commercial interests from South Asia). Many lessons could also be learned from various crises (post-2008, post-2014, and post-2016). Olters underscored the importance of (a) doing business (via legislation for secured transactions, a collateral registry, social identification numbers, and accelerated customs clearance processes for perishable exports); (b) a tax reform to redefine the relationship between the state and private sector; (c) public utility restructuring (including in energy); and (d) a digital agenda.

In terms of optimal policies to combat the negative consequences of massive, long-term, or permanent migration, at least three obstacles would need to be overcome. First, the absence of any socioeconomic perspective, a lack of confidence, and business climate constraints discourage entrepreneurship and the establishment of micro- and small enterprises, especially in rural and

remote areas. Second, low domestic productivity and, correspondingly, high wage differentials between countries of origin and destinations perpetuate emigration pressures. Finally, the lack or absence of social security prolongs the 'social buffer' function of emigration and returning remittances as essential support for migrants' families.

If these barriers could be surmounted, then the benefits of skilled migration in countries of origin would be amplified. First, large diaspora abroad could create trade networks and foster foreign direct investment (FDI) and return migrant entrepreneurship. Second, circular migration could facilitate knowledge exchange and boost skilled workers' domestic productivity. Third, migration could help to address social and unemployment challenges. Finally, migration opportunities could increase incentives for human capital acquisition as a key element of 'brain gain', both before and during migration.

Kairat Itibaev

Accelerating brain circulation in Central Asia by promoting institutional ecosystems: The case of the Kyrgyz Republic

Human capital outflow, usually termed ‘brain drain’, is a process whereby the talented part of an economically and socially proactive population leaves their home country to relocate to a more developed country. The reverse process is known as ‘brain gain’ (i.e., when a host country obtains a highly skilled and qualified workforce from abroad). Even when looking solely at developed economies, brain gain can easily transform into ‘brain waste’, namely when labour market newcomers do not find employment that corresponds to their qualifications obtained at home.

Itibaev focused on the roles of potential investors and FDI as sources of economic development in Central Asia. According to him, the academic literature has delineated three main motives driving foreign investment: resources, markets, and efficiency. Resource-seeking investors are attracted by the availability of natural resources, lucrative assets, cheap labour, and industrial infrastructure. Labour productivity– or labour incentive–seeking investors are typically multinational enterprises whose country-of-origin labour costs tend to be high. These costs might push them to establish subsidiaries or acquire a local company in low-cost countries to assemble final products for global supply chains. Efficiency seekers’ motivation is to increase the effectiveness and efficiency of goods/services production based on the host country’s economic endowments in terms of human development, technology, innovation, and science or geographic location for global supply chains.

Brain gain driven by FDI from former migrants, or from members of the networks they established abroad, is a relatively new phenomenon in the social sciences and has not yet been considered

within public policy strategies in developing countries – particularly for non-oil, landlocked, and small economies like the Kyrgyz Republic.

According to 2016 data from the National Statistics Committee, approximately 750,000 Kyrgyz citizens (12.5% of the population or 30% of the economically active population) were working abroad. This trend is likely to persist and carries important implications for future social, cultural, and economic development. Nonetheless, labour migration and related issues, such as the development of human capital, brain drain, and the roles of diasporas and social networks, remain under-researched. The Kyrgyz Republic is ranked third among labour-export economies with a high share of remittances in national GDP. In 2017, remittances accounted for 32% of the country's GDP or nearly 2 billion official cash transfers annually. Most labour migrants from the Kyrgyz Republic are working in Russia and Kazakhstan, totalling about 640,000 people. The real number of labour migrants, however, generally far exceeds what is stated in official sources.

Regarding the Kyrgyz Republic and other countries in the region, the following issues represent some negative externalities of human capital outflow: (a) the bulk of income is spent in destination countries; (b) a reduction in the economically active population in the country of origin leads to fewer taxpayers, fewer chances for economic growth, and increasing social tensions in society at home; and (c) the mass departure of young workers can adversely affect a country's demographics. Human capital outflow can also lead to broken family relationships and values and often results in divorce.

However, there are also positive externalities of labour migration: (a) a decrease in the surplus of labour and in the unemployment rate; (b) partial alleviation of poverty in rural areas, which contributes to better living standards for families; (c) acquisition of professional experience and skills; (d) absorption of an urban culture and mentality that can be useful upon returning to one's

country of origin; and (e) opportunities to invest in small- and medium-sized enterprises after returning to one's home country.

Overall, Itibaev directed attention to the question of how the Kyrgyz Republic could attract more substantial FDI. He concluded by presenting a comprehensive list of institutional requirements and policy recommendations in which he distinguished between what different categories of actors (e.g., the government, civil society, private sector, and international non-governmental organisations) could do in the fields of migration policy, investment promotion policy, education policy, and healthcare. More detailed recommendations appear towards the end of these conference proceedings.

Considering the Kyrgyz Republic's objective deficiencies, brain gain is said to represent the only way of experiencing economic growth, achieving better living conditions, and thereby escaping the nearly complete dependence on help provided by international donor assistance and development agencies. However, FDI would be meaningless if not backed by investments in high-quality human capital and social values. Otherwise, it is unlikely that high-level immigrants, both in terms of researchers and businessmen, would be attracted to move to and live in a host country such as the Kyrgyz Republic.

Rukhshona Kurbonova

Migration of healthcare workers: International practices of managing the migration of qualified personnel

Rukhshona Kurbonova referred to an important fraction of highly qualified migrants, namely healthcare workers and medical practitioners. Before envisaging the situation in her home country, she noted that the need for medical workers is likely to increase disproportionately worldwide. Estimates project that the sector will double to 80 million jobs by the year 2030. At present, there already is a shortage of 18 million healthcare workers in low- and middle-income countries. The African region and Southeast Asia are suffering most from healthcare workers' migration; roughly 60% of doctors and nurses in countries under the Organisation for Economic Cooperation and Development are migrants.

In terms of Tajikistan specifically, the Russian Federation has been the main receiver of Tajik migrants with 484,176 labour migrants in 2018. The share of migrant medical specialists applying for work permits in the Russian Federation doubled by 2017. Accordingly, Tajikistan has seen a decline from 1990 to 2013 in the 100,000 population of doctors (255.1/169.9), nurses (596.9/444.3), and midwives (128.7/53.5). In relative terms, Kurbonova compared the Tajik figures with those of Europe; the ratio is 170/347 for the number of doctors and 444/850 for nurses. According to the Ministry of Health and Social Protection, Tajikistan's family healthcare sector needs 1,179 more doctors and 4,015 more nurses to meet the needs of the local population.

Kurbonova next commented on the main push and pull factors of qualified labour migration in Tajikistan. Among the most important push factors driving people out of the country is the fact that Tajikistan's healthcare system has the lowest budget compared to other Central Asian countries and

to Russia (WB). More precisely, 88.5% of the healthcare budget is spent on medical workers' salaries; 5.9% is spent on treatment (medication and nutrition) in hospitals, and 1.8% goes to outpatient treatment. Moreover, the average doctor's salary is approximately 700–800 somoni (SM). In a recent survey, 88.6% of responding nurses and 95.5% of doctors reported that their salaries do not cover their needs. Overall, healthcare workers cited low wages, family circumstances, and poor working conditions as key drivers behind their decision to migrate from Tajikistan.

Higher wages were the major factor attracting Tajik medical workers to the Russian Federation as a popular destination. Other reasons included Tajikistan's shared history with the Russian Federation, the lack of a language barrier, and familiarity with the healthcare system based on the Semashko Soviet model. In addition, teaching materials in the Russian medical education system are published in a language highly accessible to Tajik students and practitioners. Finally, there is a shortage of medical workers in the Russian Federation; there were about 152,806 vacancies in 2011.

Kurbonova then outlined some social consequences of migration in the health sector. Indeed, the lack of medical personnel seriously affects the quality of medical services and of public health indicators in countries of origin. Perhaps the most significant effect is the persistently high infant mortality rate: 27 per 1,000 live births in Tajikistan compared to about 3.6 per 1,000 live births in Europe. Another particularly worrying effect at this writing (i.e., during COVID-19) is insufficient contact tracing for people who had come into contact with tuberculosis patients (see the conclusions of the Evaluation Committee of the Global Fund of 12 July 2019), which created conditions for the infection to spread.

Kurbonova also pointed to a couple best practice examples in migrant health management elsewhere in the world. In Sudan, for instance, healthcare workers are increasingly retained at home due to cash awards and other financial incentives. In other countries, there are bilateral agreements

between countries of origin and destination countries, such as between the Philippines and Germany, the Philippines and Spain, the Philippines and Bahrain, Sudan and Saudi Arabia, and Sudan and Ireland. Diaspora healthcare workers are involved in strengthening the healthcare systems of their home countries in Afghanistan, Bosnia, Somalia, and Sudan. Finally, Germany has considered the shortage of medical personnel in countries of origin and regulates the recruitment of healthcare workers according to ethical standards.

This contribution concluded with Kurbonova advancing two important recommendations. First, medical personnel in Tajikistan could be retained at home by increasing wages by a fair and appropriate amount – per a 2013 International Organization for Migration (IOM) study, roughly \$500 would be sufficient. Second, in terms of insufficient data, she suggested establishing a database of medical worker shortages, mapping the volume of Tajik medical workers in destination countries, enacting appropriate regulations in destination countries, creating a system to monitor medical workers' migration, and promoting research on their migration. Equally important is the initiation of bilateral agreements with main receiving countries, primarily the Russian Federation. With respect to diaspora communities, she advocated for using diasporas' capacity to strengthen the healthcare system in Tajikistan, create networks, and organise joint research and educational projects.

Zulayho Kadyrova**Central and Eastern Europe as a transit destination for Central Asian student migrants**

Kadirova presented an impressive amount of empirical material drawn in part from existing sources and from her original work and survey results. She focused on student migration and mobility across Central Asia and main receiving countries. She began her presentation by highlighting a couple general trends: Central Asia has a total population of 71.3 million inhabitants and, with an average growth rate of 1.8%, is projected to reach about 94.4 million inhabitants by the year 2050; 7.7% of the total population (i.e., roughly 5.5 million people) are working as migrants. In terms of their home countries' GDP, these workers contribute roughly 40–45% in the case of Tajikistan, 30–35% to Kyrgyzstan, and 10–15% to Uzbekistan.

Among the main drivers of migration from Central Asia, Kadirova mentioned two basic reasons: demographic factors and insufficient job creation. Regarding the first factor, and compared with countries in the European Union (EU), Central Asian countries stand out based on the share of their rural population (roughly 25% in the EU vs. 43–73% in Central Asia). Central Asia also stands out in terms of age groups; Central Asian countries have twice as many young inhabitants up to age 15 compared to the EU. The respective figures for residents aged 65 and above are as follows: roughly 20% in the EU versus 4–7% in Central Asia. The second factor behind workers' decision to migrate encompasses three reasons: (a) Central Asian countries lag behind other CIS countries in terms of political reform; (b) Central Asian countries are landlocked and dependent on neighbouring Russia, China, and Iran for access to larger export markets; and (c) countries in the region (with the exception of Kazakhstan) have less purchasing power and high poverty, making them small and unattractive markets.

Turning to her main topic, namely the issue of student migration, Kadirova pointed to a fourfold increase in student migration from Central Asia into other countries between the years 2000 (43,687) and 2016 (199,635). The main receiving countries have been in Central and Eastern Europe (79%), Central Asia (8%), North America and Western Europe (8%), and other regions (5%).

The figures for Central Asian students studying abroad are as follows: Kazakhstan (89,505, equal to an outbound mobility rate of 14.3%); Uzbekistan (33,159; outbound mobility rate: 11.8%); Kyrgyzstan (11,608; outbound mobility rate: 5%); Tajikistan (20,754; outbound mobility rate: 7.8%); and Turkmenistan (42,105; no mobility rate available). Universities in Central and Eastern Europe, including the Russian Federation, are the main beneficiaries of these student flows: 86% in Kazakhstan, 78% in Uzbekistan, 71% in Kyrgyzstan, 81% in Tajikistan, and 92% in Turkmenistan.

As in the case of migration in general, Russia is the top destination for students from Central Asian countries. Russian universities and research institutes host 69,895 students (78.1%) in Kazakhstan; 19,893 (60%) in Uzbekistan; 5,700 (49%) in Kyrgyzstan; 15,126 (73%) in Tajikistan; and 16,521 (37%) in Turkmenistan. Russia's appeal as a site for further education is due to low adaptation costs, the relatively low costs of higher education, an attractive job market, geographical proximity, and ease of residency and relocation. Neighbouring countries are only chosen by a small fraction of students: 5.5% of Kazakh students moved to Kyrgyzstan; 11.4% of Uzbek students moved to Kazakhstan; 9% of Kyrgyz students moved to Kazakhstan; 9.6% of Tajik students moved to Kyrgyzstan; and only 3% of Turkmen students chose Kazakhstan. While Kazakhstan managed to attract 14,332 international students from abroad in 2017, only 603 international students went to Uzbekistan. Kyrgyzstan stands out in that it attracts more students than it sends abroad (i.e., 14,796 international student arrivals in 2017). Tajikistan hosted 2,238 students in the same year.

With respect to Kadirova's survey of students from all Central Asian countries, perhaps the most noteworthy result was the following: when asked about their plans after graduating abroad, 67% of respondents stated they would prefer to work abroad for a few years before returning to their country of origin. Another 9% indicated intentions to stay for a longer period, while 21% wished to return home immediately after having earned a university certificate. These figures are not especially encouraging in terms of prospects for brain circulation.

Sherzod Eraliev

Return migration as a brain gain for Uzbekistan? Challenges for attracting highly skilled Uzbeks abroad

Sherzod Eraliev's lecture was devoted to factors influencing highly skilled Uzbeks to return to their home country. He noted that after the election of President Mirziyayev, several reforms have been implemented in the country. However, Uzbekistan has faced a lack of qualified personnel and specialists to implement these reforms. The government created several agencies that work with diasporas, encouraging the return of highly qualified specialists, and has appointed several who have returned to high government posts. However, it is too early to discuss brain gain for Uzbekistan. Eraliev showed that the circulation of minds, including academic mobility and the return of highly qualified personnel, depends not only on incentives (e.g., appointments to leading positions) but also on the general pace of reform as well as economic growth. At the same time, social (culture and adaptation), personal (success or failure), and family problems can play decisive roles in migrants' decisions to return. Institutional (reforms) and economic (growth) factors, coupled with career opportunities and social factors, are major catalysts for return.

Eraliev then presented results of his own survey conducted with 15 respondents, based on in-depth interviews and satisfying the following selection criteria: completed first tertiary education in Uzbekistan; lived abroad for at least three years; achieved a certain level of success in their respective fields in their respective foreign countries; and a diverse geographical spread (e.g., Australia, Asia, Europe, and North America). Guiding questions included the challenges Uzbekistan is facing in its efforts to attract highly skilled Uzbek citizens based abroad and how the country can best use its diasporas abroad.

Eraliev further distinguished between the pros and cons of returning and the potential benefits of doing so for diasporas. Among the main factors making a return to Uzbekistan viable were patriotism, a sense of belonging, pragmatism, opportunity, and a feeling of 'being part of big changes'. Reasons preventing migrants from retuning included the following: old-style bureaucracy; corruption; a lack of real economic and political reform, including in public administration; low living standards; lacking health and education infrastructure for family; and family circumstances. Potential benefits for migrant communities abroad involved the establishment of business networks; academic exchange programmes between sending and receiving countries; monetary and social remittances; the promotion of a positive image of the sending country; and the use of diasporas as cultural bridges between countries.

Malika Mukimova

Legal framework for skilled migration in the European Union

Malika Mukimova's contribution shifted away from Central Asia and considered experiences in the EU. The EU's policy around qualified labour migration was taken as an example of potential outcomes if similar institutional and political infrastructure were in place. Mukimova analysed new trends in modern EU migration policy, including the EU's legislative attempts to transform brain drain into brain circulation. This example may serve as a blueprint for a new innovative model of social and economic development practiced in the Republic of Uzbekistan. Uzbekistan has started to actively develop bilateral relations with foreign countries and cooperation agreements with international organisations, especially in terms of highly skilled labour migration. Mukimova first outlined the history of migration policy in the Federal Republic of Germany before turning to the case of Turkey, which has traditionally been a main provider of foreign workers in Germany.

Many host countries have amended their visa laws to ensure that skilled immigrants remained employed by them rather than returning to their countries of origin or moving to other developed economies. At the same time, the EU's 1994 Program of Population Action and Development considered the situation in countries of origin: "host governments are invited to consider certain forms of temporary migration ... in order to improve the skills of nationals of countries of origin, especially developing countries and countries with economies in transition." The recognition of diaspora as a systemic factor in mature immigrant communities has played a major role in the transition from brain drain to brain circulation, and these diaspora communities have in fact become a key tool in modernising the national economies of their countries of origin. However, in reality, EU migrants and Third Country immigrants who have been attracted by programmes such as Marie

Curie scholarships or the European Council for Scientific Research Grant Program rarely return to their homeland.

Particularly interesting is the example of Germany. In 1973, after the number of foreign workers exceeded 2 million, their entry was stopped. Germany, like all other European countries, has closed its border to migrant workers and intensified programmes to support migrant repatriation. Yet the total number of immigrants in Germany has continued to increase despite an official ban.

Before the beginning of the 21st century, Germany lacked an effective policy regulating intellectual migration and aimed at attracting qualified foreign specialists for the development and competitiveness of the country's economy. The economy's need for qualified specialists therefore remained unmet. Unlike the United States, Canada, and Australia, which encouraged primarily skilled workers (i.e., the 'import of brains'), Germany has long been supplemented by ethnic Germans, contingents, and political refugees. After encountering personnel shortages in knowledge-intensive economic sectors and brain drain in the late 20th and early 21st centuries, Germany intensified its policy to attract highly qualified specialists and international students.

In the late 1990s, Germany experienced a serious shortage of specialists in the information and communications technology (ICT) sector, estimated at more than 500,000 vacancies. This deficiency presented a significant obstacle to the country's development and economic competitiveness. In 2000, Germany introduced the Canadian-based 'Green Card' programme to attract skilled workers in industries related to ICT development. The programme's test phase ran from August 1, 2000 to December 31, 2004. Using a point system to evaluate applicants and hence adopting a more selective form of immigration policy, the programme has had a generally positive impact on Germany's economy.

However, Germany continued to experience an acute shortage of qualified personnel, especially engineers, programmers, and doctors. Accordingly, in the 2000s, the Federal government implemented several important reforms related to migration regulations. Since entering into the new Immigration Act (2005), migration management in Germany has become more systematic (i.e., with the establishment of the Federal Office for Migration and Refugees in 2005). Germany officially recognised itself as an ‘immigration country’ at that point. Since 2006, under the chairmanship of Federal Chancellor Angela Merkel, ‘Integration Summits’ are held annually with the active participation of public and immigrant organisations. These summits are intended to establish dialogue with immigrants and to involve civil society in the process of their integration.

Turning to Turkey, the country that has continued to be a donor of labour (including skilled migrants), Mukimova indicated that the country had successfully managed to significantly limit the consequences of brain drain in recent years. Turkey is currently among the 20 countries with the highest diaspora volume. On the Turkish side, the number of diasporas reached 5 million (ranking 17th worldwide in 2017). Of these, 4 million live in EU countries, and 3 million alone are in Germany. In the 1980–1990s, Turkish migrants settled firmly in Europe. Their educational and, as a result, socioeconomic and political status has improved considerably; Turkish people in the West ceased to be associated only with the concept of ‘black workers’ and became an integral part of European social and political life. Highly skilled Turks now move freely between their country of origin and host countries.

Bahrom Rajabov

Social remittances created by Uzbek students studying in Kassel (Germany) and in Tsukuba (Japan): A comparative analysis

Bakhrom Rajabov's contribution shed light on the social practices and social capital of employed migrants in contact with their homeland. Comparing the experiences of Uzbek students studying in Germany and Japan, he showed that social remittances – or, for that matter, social capital – encapsulate a resource (e.g., knowledge, contacts, social networks in and across organisations, and other systems of interaction) that can be and has been used for entrepreneurial practices between Uzbekistan and foreign partners. For example, skills acquired by Uzbek students in Japan have been transferred to their homeland and primarily facilitated academic exchanges and educational plans. In Germany, Uzbek students have transferred innovative agricultural practices back to Uzbekistan.

The purpose of Radjabov's study was to distinguish between practices, or systems of practice in the sense of Levitt (1998) and social capital as proposed by Bourdieu (1985). From Radjabov's perspective, social remittances and social capital can be combined and are mutually influential. Based on the work of Levitt, Bourdieu, and others, Radjabov argued that, contrary to monetary remittances whose role is widely researched, social remittances have not yet gained the attention they deserve. This is the particularly the case for research on Central Asia and Uzbekistan. Social remittances are a migration-driven form of cultural diffusion and non-material transfers, including innovative ideas, valuable transnational networks, knowledge, sound political contributions, policy reform, valuable democratic habits and attitudes, appropriate peace-making ideas and practices, new technological skills, behavioural norms, work ethics, social values, and cultural influence. Radjabov therefore wishes to bring the roles of social remittances to the forefront for Uzbekistan in empirical terms and in terms of contributing to the theory of social remittances.

Empirically speaking, his main questions have revolved around the types of social remittances (e.g., practices and social capital) created by Uzbek students studying in Germany (in the city of Kassel) and Japan (Tsukuba) after their return to Uzbekistan (Tashkent). Radjabov is also interested in the types of new practices Uzbek students have encountered, what kind of social capital these students have cultivated, and the differences between Uzbek students migrating to Germany and to Japan. Rajabov employed various techniques to measure these phenomena: social remittances theory, social capital approaches and the specific building blocks thereof, social ties and social structural approaches, network theory, and some individual components from these concepts.

After presenting individual reports from his respondents, Rajabov concluded by saying that the new socio-normative and academic environment encountered in Uzbek students' host countries has been crucial for obtaining and transferring educational practices and professional skills to their home country. In Japan (Tsukuba), new techniques and practices consisted of preparing academic exchange and research plans in accordance with international standards for submitting applications for Uzbek students in Uzbekistan to study at Japanese universities. In Germany (Kassel), new practices included innovative farming techniques such as farm operations, sound agricultural practices in place of conventional practices, and professional skills in agricultural production.

Part 2: Summary of proceedings and oral presentations

In the wake of the economic crisis that struck Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan after the breakup of the Soviet Union, labour migration flourished in Central Asia. One of the consequences of the economic downturn of Central Asian countries and ensuing labour migration was the brain drain of highly skilled labour from Kyrgyzstan and Kazakhstan in the 1990s and from other Central Asian countries in the 2000s.

A three-day international symposium on “Turning brain drain into brain gain in Central Asia” was held on November 25–27, 2019 in cooperation with the DOC Research Institute (Berlin) and TNU. The event was funded by the VW Foundation (Germany) and was attended by 23 researchers and experts from across Germany, France, Portugal, Finland, Poland, Belgium, the Russian Federation, China, Iran, Kazakhstan, Kyrgyzstan, and Uzbekistan along with 25 researchers from Tajikistan.

The symposium focused on the emigration of highly qualified personnel from countries in Central Asia amid growing specialist shortages during the region’s development and modernisation. Central Asian countries lost a significant share of highly qualified personnel, researchers, scientists, and artists in the first decade after the collapse of the USSR. Then, labour migration began to develop rapidly, including migrants of highly qualified backgrounds. Today, popular destinations for skilled worker migration from Central Asia include countries in Western Europe, the United States, Russia, and Kazakhstan. An aging population and the economy’s demand for educated young people are forcing Western countries to attract young professionals from around the world. In light of economic and demographic factors, Russia and Kazakhstan are also experiencing a shortage of moderately and highly skilled workers. These countries themselves are suffering from brain drain as well. Taken together, these characteristics could accelerate the growth of highly skilled workers emigrating from Central Asian countries and hinder economic development and social life in the

region. Under these conditions, it is important to take measures that could stimulate the so-called 'circulation of minds'. This phenomenon can be defined as a circular movement of skilled labour in different countries. This form of migration can benefit sending and receiving countries: if the migration of skilled labour leads to an intensive and bilateral exchange of the workforce, then people will presumably return to their homeland with accumulated experience and resources. This pattern could improve social and institutional conditions, which would in turn facilitate specialists' return. In that case, the circulation of minds can be an innovative strategy for developing countries. To effectively transform brain drain into brain circulation, it is also necessary to inspire research in this area and to support the exchange of ideas between theorists and practitioners across countries. This symposium laid the groundwork for this type of exercise in Central Asia.

The symposium was opened by Vice-Rector for Science at TNU, Doctor of Chemical Sciences, Professor Safarmamad Muborakshoevich Safarmamadov. Welcoming remarks on behalf of Majlisi Namoyandagon Majlisi Oli (Parliament of the Republic of Tajikistan) were made by the Chairman of the Committee on Science, Education, Culture and Youth Policy, Doctor of Physics and Mathematics, Professor Lutfiya Nusratovna Rajabova (see Part 1). She outlined the official position of the country's leadership on the important and sensitive topic of labour 'migration as brain drain' in Tajikistan and wished success to the symposium and its participants.

Next, the chief research associate of the DOC Research Institute and head of its Moscow branch, Doctor of History Professor Alexei Vsevolodovich Malashenko, spoke about the DOC Research Institute's activities and its past and present projects. On behalf of the institute's leadership, he thanked the administration of TNU for their fruitful cooperation.

On behalf of the Ministry of Labour, Migration and Employment of Tajikistan, the director of a research institute under the Ministry, Dr. Saodat Mutieva, made a welcoming speech and presented

a report. She cited several results from the institute's study on labour migration and brain drain in Tajikistan. She also pointed out main changes in labour migration from Tajikistan in recent years, including a diversification of exit routes for skilled labour and the growth of net emigration to the Russian Federation. She paid special attention to social consequences of labour migration, including brain drain, as well as government measures aimed at training qualified personnel.

DOC Research Institute project co-authors Dr. Behrooz Gharleghi (Iran and Germany), Dr. Jürgen Grote (Germany), and TNU Professor Muzaffar Abduvakkosovich Olimov discussed the objectives and structure of their project and reviewed the symposium programme.

In their opening remarks, they pointed out that, despite the problem of brain drain in all countries in Central Asia and Russia, insufficient attention has been paid to this topic. Labour migration studies provide a general idea of the extent of brain drain in Central Asia. A 2014 study by Varshavskaya and Denisenko, one of a few exploring the migration of highly skilled workers from Central Asia, focused on labour migration to Russia. Findings showed that 20.9% of the 8,400 labour migrants surveyed were leaders and specialists in their countries before leaving, while only 4% took similar positions in Russia (Varshavskaya & Denisenko, 2014). A number of researchers have also pointed to knowledge gaps around the topic of brain drain in Central Asia, further acknowledging an acute lack of statistical data.

Accordingly, the main goal of the symposium was to stimulate the scientific exchange of knowledge regarding highly skilled labour migration from Central Asia, its social and economic consequences, and the possibilities of transforming brain drain into brain circulation as a means of developing the countries in the region.

TNU Professor M.A. Olimov, Professor A.V. Malashenko, and Professor S.V. Ryazantsev served as the symposium's plenary session moderators. The first plenary session was opened by Dr. Jan-Peter

Olters, Country and Regional Director of the World Bank in Tajikistan (see Part 1). He delivered a keynote address on the 'right policies' to transform brain drain into brain circulation in Tajikistan. Olters outlined the main characteristics of such transfers, analysed a connection between transfers and Tajikistan's economy, highlighted the importance of brain drain to the country's development, and offered several recommendations to promote the potential for using highly qualified personnel to develop the country.

Of great interest was a report from Dr. Julien Thorez of the French National Centre for Scientific Research (France), "'Brain Drain' from Central Asian countries: Labour migration, like any other?". Thorez described labour migration from particular Central Asian countries, revealing the evolution of trends and their scale over 30 years. He noted that, unlike labour migration, brain drain in Central Asia had gone nearly unnoticed by Western researchers. At the same time, Central Asian countries faced brain drain as part of the global dynamics around skill spreading, which presented acute questions for Central Asian states and societies regarding their chosen development models and their place in the globalisation process.

A report from Professor Sergei Ryazantsev, Director of the Institute of Social and Political Studies of the Russian Academy of Sciences, Head of the Department of Demographic and Migration Policy at MGIMO University, and Corresponding Member of the Russian Academy of Sciences, addressed "Emigration and return migration of highly qualified specialists and scientists to Russia." This discussion was devoted to the Russian experience of brain drain and the state's measures to prevent it. Ryazantsev spoke about extensive materials related to trends in the emigration of the highly skilled workforce (HSW) and scientists from Russia in 1990–2019. He also examined the characteristics of HSW employment abroad along with features of Russian scientific communities abroad in terms of geography, structure, attitudes, and global mobility. While reviewing measures of Russia's state policy aimed at attracting leading foreign scientists and the return of Russian

scientists to their homeland in the context of new government targets for world leadership in science and education, Ryazantsev assessed the implementation effectiveness of relevant programmes. He noted that a key means of attracting leading scientists to Russia is support for academic mobility and brain circulation. He also suggested directions for adjusting national scientific and educational policy and migration policy to mitigate problems involving the return of HSW and scientists to Russia.

Professor Ludmila Petrovna Maksakova (Uzbekistan), a Chief Researcher in the International Fund *Sog'lom Avlod Uchun* ("For The Healthy Generation"), spoke about brain drain in Uzbekistan in a report "Outflow of skilled labour in aspects of the national labour market" (see Part 1). Maksakova noted that, although the annual population outflow in Uzbekistan decreased by 5–7 times compared to the early 1990s, the Republic continues to lose skilled labour. Notably, the share of the population with secondary and higher specialised education who leave is 8–10 times higher than the number of those arriving. Maksakova described various ways in which the outflow of skilled labour has affected Uzbekistan's state and national labour market and suggested approaches to alleviate the effects of brain drain in light of outlined development strategies and changes in the size and structure of emigration.

Dean of the Faculty of Information Technology of the Tajik Technological University, Doctor of Economics, Professor Subkhon Burkhonovich Ashurov discussed reasons for brain drain in his report "On factors contributing to the emigration of highly qualified specialists from Tajikistan". The report examined a number of factors affecting labour emigration, including of highly qualified specialists. Ashurov especially pointed out demographic pressure on the labour market and differences in salaries between sending and receiving countries. The Tajik economy does not create enough jobs for a rapidly growing workforce, hence why the republic's most valuable asset – human capital –

remains underutilised. In 2016–2018, the republic's real GDP growth averaged 7.1% per year, whereas annual employment growth was a mere 0.6%. The working-age population increased by 4% during this period. Another factor influencing labour emigration is a lack of productivity in working employment, as characterised by the expansion of informal employment (60%), narrowing capacity of the hired employment segment (38.5%), and low wages among highly qualified specialists. For example, doctors' average salary in Tajikistan was SM800.72 in 2017, equal to \$93.70 per month. Doctors of the highest category earned SM1108.60 (\$129.60). According to the Federal State Statistics Service, in the first half of 2019, doctors' average salary in Russia was 79,200 rubles per month (\$1252.80), more than ten times greater than in Tajikistan. Among important factors contributing to the growth of skilled labour migration from Tajikistan, Ashurov referred to the globalisation of education and the labour market, simplification of border-crossing rules, regulations around foreign citizens staying in the CIS, and legislative changes aimed at attracting skilled labour in host countries.

Labour migration and brain drain in Tajikistan represent distinct migration trends that are loosely connected as evidenced by a report from the Director of Sharq/Oriens Research Center, Dr. Saodat Kuzievna Olimova, entitled "The relationship of labour migration and brain drain: Experience of Tajikistan". Numerous studies have shown that despite several common reasons (e.g., lack of work and low earnings), the labour migration and emigration of highly qualified personnel are not identical in their sociodemographic characteristics; they exist in parallel with little interaction. At the same time, both trends negatively affect Tajikistan's education level and human capital, thus impeding the country's development.

The first symposium session was chaired by Dr. Jürgen Grote. Discussions began with a report from the director of the Social Services Research Center, Jamshed Quddusov (Tajikistan), "Impact of migration on skills development". Based on data from sociological studies, Quddusov described

changes in labour migration from Tajikistan. Until 2009, most migrants were middle-aged (35–45 years old), but by 2018, the composition of migrants became significantly younger. Their educational composition has deteriorated significantly as well. In 2009, migrants' level of vocational education was more than double the corresponding indicator of the country's labour force; by 2018, their educational level declined to equal general indicators of the country's labour force. More than 72% of migrants did not have a vocational education prior to departure. The expectation for a professional education has a negative impact on migration intentions. The study further revealed that migrants only consider formal education as training; however, most migrants received informal workplace training. Therefore, migrants' participation in study abroad is quite low. Only 1.9% of all returning migrants studied abroad formally.

Typically, a mismatch exists between migrants' education level and employment abroad because very few people who received professional education in Tajikistan find work in Russia corresponding to their education. Many migrants with higher education (38.5%) are employed in construction. During the migration process, skills are acquired through on-the-job training. More than 83% of migrants noted the usefulness of knowledge and skills acquired abroad for use at home. Often, a profession acquired during migration becomes one's main employment at home. After returning to their homeland, migrants' status in the labour market does not change – before departure and after returning, nearly one in every two migrants does not have a job. Data show that working abroad positively influences the development of new skills, which could be useful for the Tajik economy if the state's migration policy were aimed at encouraging migrants' return. The study also showed that a sought-after profession is an important factor in a migrant's career success at home and abroad.

Dr. Karolina Kluczevska (Poland), a researcher from Tomsk State University, presented “Tajik youth on the move: Constant interaction with their homeland”. She critically rethought the concept of brain drain and examined various forms of contact between young Tajik specialists living abroad and their homeland. Based on interviews with four Tajiks living and working in Germany, the UK, India, and Russia, Kluczevska unearthed the complexities of their relationship with their homeland, which depended on migrants’ social and personal lives: education, employment opportunities, family, and social networks.

Jafar Usmanov (Germany/Tajikistan), a PhD candidate at the University of Bonn (Germany), presented “Inflow, not a leak: Mobility of Tajik citizens studying social sciences in the West”. Usmanov argued that the mobility of a highly educated workforce can have a positive impact on destination countries and a multidirectional effect on countries of origin. Based on a study of the life trajectories of specialists with a Western education who returned to their homeland, Usmanov examined the benefits of their mobility for Tajikistan, specifically noting differences between the social sciences and humanities. Usmanov also highlighted the positive effects of returning specialists on the development of private businesses and the transfer of new ideas and technologies.

On the second day (November 26), the symposium continued with a session on “Existing empirical studies”, which presented the results of recent studies related to symposium topics. The session was led by a researcher from the Institute of Geography and Spatial Planning in Lisbon, Portugal, Dr. Antonio Eduardo Ricardo Raimundo da Silva Mendoza. The Executive Director of the Open Society Institute, Dr. Ilhom Abdullaev (Tajikistan), opened the session with “Changing the relationship between abandoning education and migration in Tajikistan”, discussing the negative effects of migration on educational attainment based on extensive material from Tajikistan.

The head of the Department of International Economic Relations of Tashkent Oriental Institute, Dr. Zulaykho Kadyrova (Uzbekistan), analysed educational migration from Uzbekistan as a means of emigration in “Migration through education from Central Asian countries” (see Part 1). She pointed to a growing trend of educational migration from Central Asian countries to the Russian Federation, the EU, China, and Asian countries, which can discourage educated young people from returning to their homeland. Kadyrova also addressed receiving countries’ positive attitudes to this phenomenon, as migration through education enables these countries to attract skilled young labour that is then integrated into the host country’s culture. She then spoke of the extent, dynamics, and prerequisites of migration growth through education from Central Asian countries and reviewed the effects of educational migration followed by emigration for receiving countries and host countries.

Zufar Ashurov, Acting Deputy Director of the Center for Research on Privatization, Competition and Corporate Governance under the State Assets Management Agency of the Republic of Uzbekistan, continued the discussion on the causes and consequences of brain drain in Uzbekistan. He presented “Problems of financing science and its impact on brain drain in Uzbekistan: A retrospective view and prospects for a solution”. Ashurov stated that the Republic of Uzbekistan has large scientific centres, significant intellectual potential, an integrated system of training highly qualified scientific personnel, and coordinated development of science and technology. Nevertheless, science-related funding cuts after the collapse of the USSR, among other consequences, spurred the emigration of scientific personnel. The data show a significant reduction in science-related funding during the first decade of independence as well as a complete transition to a grant system of financing science, which led to the departure of young and promising scientists from research groups, institutes, and universities. A portion of scientific youth moved to foreign universities and research institutes. Similar to other post-Soviet countries, some of these youth

ceased their scientific activities and moved into other economic sectors. Bearing in mind that an important reason for brain drain, especially in young scientists' emigration, involves problems financing science and scientific activity, government policy measures are needed to support science. Ashurov proposed promising political recommendations to improve the system for financing science and scientific activity in Uzbekistan, which would enable the country to move from brain drain to brain gain. The session ended with a discussion of relevant reports.

The third session was chaired by Dr. Ilkhom Abdulloev. Programme coordinator for the health of the IOM, Rukhshona Kurbanova, launched the session with a keynote address "Migration of healthcare workers: The international practice of managing migration of qualified personnel". The report described the causes, extent, and direction of medical workers' emigration from Tajikistan (see Part 1). Kurbanova demonstrated that these workers' emigration is part of a global trend in which aging developed countries attract young healthcare workers from developing countries with high salaries, career prospects, and favourable living conditions. In turn, developing countries that are losing medical personnel cannot provide the population with medical services or cope with epidemics. This pattern concerns international organisations and has promoted the development of measures to manage the migration of qualified personnel, including healthcare workers. Tajikistan's main host country is Russia, where Tajik healthcare workers are attracted by higher wages, a medical education system whose educational materials are mainly in Russian, a coherent healthcare system based on the Semashko model, a common historical past, and no language barrier.

The migration of healthcare workers has had serious social consequences for Tajikistan: 25.5% of rural women give birth at home without medical personnel, and infant mortality is 37.1 per 1,000 live births – significantly higher than European indicators (8.8 per 1,000 live births). Additionally, insufficient contact tracing of tuberculosis patients led to infection hotspots. Tajikistan is taking measures to prevent personnel migration by reforming financial aspects of healthcare. Efforts

include switching to per capita financing, piloting a guaranteed package of services, paying workers based on performance indicators, and incentivising medical workers through local budgets or private practice opportunities. However, these measures are not effective enough, hence the need to study medical workers' international migration experiences to further enhance Tajikistan's personnel policies and healthcare system.

Two reports from participants from Kyrgyzstan were presented in the same session. Deputy Director of the Center for Digital Technology of the Academy of State Administration under the President of Kyrgyzstan, Aida Sharsheeva, presented "Digital transformation as an environment for transforming brain drain into brain training". Kairat Itibaev, a consultant to the Chamber of Commerce and Industry and the Association of Foreign Investors of Kyrgyzstan, gave a talk on "Business start-ups and Generation Y" and commented on the roles of institutional ecosystems (see Part 1). Both contributors addressed current issues related to the predicted consequences of digital processes and brain drain, noting that brain drain in Kyrgyzstan is due to the digital transformation of the labour market around the world. Kyrgyzstan is an active provider of digital professionals: in the first half of 2019 alone, 1,000 local IT companies exported services to large technology countries for 635 million soms or \$9.1m, 40% of which were delivered to the United States. Some services were provided in the 'shadow' sector. However, the paradox is that these professionals are still not in demand in their country; they are not interested in working in technologically and managerially backward national state-owned companies or in being outside the 'shadow' sector. The Kyrgyz government is thus faced with the task of transforming brain drain into brain training by creating conditions conducive to the development of the national digital economy, supporting the development of human capital for national needs, and becoming integrated in the global labour market. Sharsheeva and Itibaev also talked about developed countries' experiences that can

promote the development of technological processes in their countries. Both presenters proposed techniques to attract domestic specialists to meet local market needs.

The session closed with a report from a PhD candidate at Tajik Technological University, Loikjon Mirov (Tajikistan), “NEET Youth and the brain drain: The Tajik example”. The report highlighted the migration of youth not in employment, education, or training (NEET). Specifically, Mirov investigated whether NEET youth migration represents brain drain or brain gain. Based on a regression analysis of data from 2017 involving 2,000 youth, Mirov estimated the impacts of migration status and migration duration on employment status after migrants returned to their homeland, suggesting that changing NEET status to ‘busy’ after migration can result in brain gain for less educated people. Thus, if migration negatively affects the employment of highly educated people, then it represents brain drain/brain loss. Mirov then offered recommendations related to the development of youth-oriented policies.

The fourth session was chaired by Dr. Julien Thorez (France). This session was opened by Dr. Antonio Eduardo Ricardo Raimundo da Silva Mendoza (Portugal), who presented "Central Asian Migrants in Western Europe - Motives, Perceptions, Prospects". Mendoza spoke of migrants from Central Asian countries living in Western Europe, specifically those living in Portugal and Spain. He analysed their integration into Russian-speaking local economies and diasporas and described their motives, perceptions of life, and prospects for returning to their homeland. Dr. Mendoza situated the migratory experiences of Uzbeks and Kazakhs in Portugal within the context of world experience, referring to the relationships of sending countries and diasporas using centuries-old migration of the Portuguese and Spaniards to Latin America. Mendoza further noted that the ‘circulation of minds’ is possible only when migrants maintain subjectivity and a relationship with their homeland, which requires appropriate policies and focused work by government agencies to strengthen ties with diasporas abroad.

Dr. Sherzod Eraliev (Finland/Uzbekistan), a researcher at the Aleksanteri Institute of the University of Helsinki, presented “Return migration as an influx of minds into Uzbekistan? Problems of attracting highly qualified Uzbeks from abroad” (see Part 1) to address factors related to the return of highly skilled labour to Uzbekistan. Eraliev mentioned that after the election of Sh. Mirziyayev, reforms were launched by the President of Uzbekistan. However, Uzbekistan faced a lack of qualified personnel and specialists to implement these reforms. The government then created several agencies that work with diasporas, encouraged the return of highly qualified specialists, and appointed several who have returned to high government posts. However, it is too soon to discuss brain gain for Uzbekistan. Eraliev showed that the circulation of minds, including academic mobility and the return of highly qualified personnel, depends not only on incentives (e.g., appointments to high positions) but also on the general pace of reform and economic growth. At the same time, social, personal, and family problems can heavily mould individuals’ decisions to return. The combination of institutional and economic factors alongside career opportunities and social factors can serve as catalysts for return.

Bakhrom Rajabov (Uzbekistan), a PhD candidate at Tsukuba University (Japan), presented “Social transfers created by Uzbek students studying in Kassel, Germany and Tsukuba, Japan: A comparative analysis” (see Part 1), which highlighted migrants’ social practices and social capital used in contacts with their homeland. Comparing the experiences of Uzbek students studying in Germany and Japan, Rajabov showed that social capital was used as a resource for entrepreneurship between Uzbekistan and foreign partners. For example, practices and skills that Uzbek students acquired in Japan and transferred to their homeland helped to foster academic exchanges and educational plans. In Germany, Uzbek students transferred innovative agricultural practices back to Uzbekistan.

Three young researchers from the Kazakh-German University of the Republic of Kazakhstan spoke of the consequences of brain drain in Kazakhstan. Assistant of the Faculty of Social and Political Sciences, Zumratkhon Sanakulova, presented “Brain drain from Kazakhstan to Islamic states: Nature and trends”; Assistant of the Department of Science and Innovation, Akbota Saduakasova; presented “Brain drain: Media perception in Kazakhstan”; and project manager of the Research Institute for International and Regional Cooperation, Kamila Kilmakaeva, presented “The impact of the brain drain on the state of civil society in the Republic of Kazakhstan”. Sanakulova described the history, scale, and direction of migration from Kazakhstan to Eastern countries as well as the state’s measures related to these migrations. Saduakasova summarised a study from the Kazakh press analysing the image of brain drain crafted by the media, its causes and contents, and areas for further research. Kilmakaeva’s report focused on differences in the Kazakhstan state’s and civil society’s positions on the emigration of highly qualified personnel. Kilmakaeva discussed prospects for dialogue between authorities and society on migration issues and reviewed the work of civil society institutions relative to migration, including brain drain.

After discussing these reports at the end of the second day, a dialogue was held on prospective research into brain drain in Central Asian countries. Participants also talked about the need to prepare a review of legislation governing the migration of qualified personnel, create a glossary of terms, and collect relevant statistics.

The third and final day of the symposium, “Turning brain drain into brain circulation”, began with the fifth session in a seminar format. Of great interest was a lecture by an economist at the World Bank, Dr. Alisher Rajabov, entitled “Study of migration and transfers using high-frequency surveys”. At the end of the lecture, Radjabov responded to numerous questions and engaged in extensive discussion with the participants.

Professor M. A. Olimov led the remainder of the session. Five young researchers from Tajikistan and Uzbekistan presented their work: a senior lecturer at Kulob State University (named after Rudaki), Muborak Safarova, discussed “Returning migrants: Problems and prospects of reintegration (on the example of Khatlon region)”; a lecturer at Westminster International University in Tashkent (Uzbekistan), Malika Mukimova, presented “Legal basis for migration of qualified personnel in the European Union” (see Part 1); a PhD candidate at TNU, Muhabbatsho Kobilova, presented “Training of qualified youth in the Republic of Tajikistan”; a lecturer at the Department of Philosophy and Political Science of Khorog State University (named after M. Nazarshoev), Fotima Shokhzodamuhammedova, presented “Reasons and features of Tajik migration” (see Part 1); and a junior researcher at the Institute of Economics and Demography of the Academy of Sciences of the Republic of Tajikistan, Nozanin Safarova, presented “Reasons and features of migration of highly qualified specialists from Tajikistan”.

The symposium closed with a roundtable discussion on “Integration of quantitative and qualitative methods in studies of labour migration” led by the director of Research Center Sharq, Dr. S.K. Olimova, and the director of the Social Services Research Center, J. Quddusov. At the roundtable, participants shared their experiences with migration studies and discussed the latest research methodologies along with current research projects. Views and information were widely exchanged, during which participants outlined major avenues for studies of brain drain and brain circulation. Students also participated actively during numerous symposium discussions, expressing interest in various aspects of migration-related research.

Final remarks

Overall, symposium organisers and participants agreed upon the conference's importance. The discussants also unanimously acknowledged the need to seek subsidies and financial means to repeat this experience in the future and deepen their acquired knowledge. Subsequent meetings could focus on more specific aspects of brain drain, such as the role of remittances; the importance of empowering and making use of diaspora communities; the need to strengthen the educational and training system in Central Asian countries; and the relevance of promoting business start-ups, especially in the high-tech sector. The symposium concluded with a festive dinner during which each participant received a certificate of attendance from the organisers.



The symposium was concluded by a festive dinner at the occasion of which each participant received a certificate of attendance by the organizers.



Certificate of Attendance

This to certify that Ms, Mr, Dr, Prof

.....
First name

.....
Family name

has successfully participated in the International Symposium on "Turning
Brain Drain into Brain Gain in Central Asia" in Dushanbe, Tajik National
University, Tajikistan, November 25-27, 2019.

Dushanbe, November 27, 2019

.....
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Tajik National University

.....
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Policy brief and recommendations

Executive summary

Funded by the Volkswagen Foundation, this international symposium was organised by the Dialogue of Civilizations Research Institute (Berlin) together with the Tajik National University in Dushanbe.

The topic was of crucial importance to the development of political economies in Central Asia: labour migration and brain drain.

The question was how brain drain, i.e., the migration of students and high-skilled workers to foreign countries, could be altered such that it becomes brain circulation, thus ultimately creating opportunities for ‘brain gain’.

The symposium was the first event of this kind in Central Asia and gathered a total of 50 senior scholars with established backgrounds in the topic, policymakers, representatives of international organisations, and younger researchers at the beginning of their careers.

Very little is known to scholars outside the region (for example, those from Europe, US, and other parts of the world) about the socio-political and economic relevance of labour migration and brain drain in Central Asia. Nevertheless, the topic is of crucial importance and has received considerable attention from scholars and research institutes in Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan.

Incidentally, it should be noted that it was not possible to induce Turkmen researchers joining the symposium. In any case, opportunities to exchange information and share data across the national borders of Central Asian countries remain limited. This holds equally for coordinated political responses and joint strategies to alleviate the problem.

The symposium, therefore, represented an outstanding chance to do precisely this: to get together, create networks, identify common and more specific aspects linked to the topic, and come up with suggestions for researchers and practitioners across the entire region.

Most contributors did not adopt a proper comparative perspective. They were rather concerned with presenting up-to-date accounts of the status quo of different dimensions relevant to brain drain and labour migration in their country of origin. Assisted by recent reports from the World Bank, the ILO, the UN, and other international organisations, it was nevertheless possible to draw several key conclusions from the symposium to be used for policy recommendations. They are briefly listed in what follows.

The symposium demonstrated that extended periods of the loss of scarce human capital and the emigration of skilled labour represent serious problems. The scope of the phenomenon is dramatic.

Outlining the status quo and presenting some key suggestions of how the problem can best be handled, the policy brief makes a distinction between the principal causes responsible for the massive number of migrants in the region and, on the other hand, the symptoms triggered by these causes. It is argued that combatting the causes would require a long-term strategy aimed at structural and institutional reform that cannot be expected to unfold overnight. Yet, several solutions may be envisaged to alleviate the scope of the symptoms. These concern problems of cross-national cooperation, of remittances, and of the use of migrant communities abroad, i.e., of different diasporas in host countries.



Group photo from the symposium in November 2019.

The problem

Comprising Central Asia and Russia, the Eurasian migration system accounts for one-third of all developing country emigration worldwide. Emigrant stock within the region is 47.6 million, amounting to almost 10% of the total population. When highly educated emigrants don't return to their country of origin, labour-sending countries essentially give publicly funded assistance to labour-receiving countries. This trend may escalate economic disparity between the rich and the poor.

On several occasions, it was shown by participants at the symposium that persistent outmigration is most often a symptom rather than the cause of the problem. This makes the formulation of policy recommendations no easy task – especially if all countries of the region are considered and suggestions are not limited to any specific national case alone. Besides being a symptom rather than a cause, it is important to underline that the decision to migrate is rooted in the desire of millions of people for a higher quality of life, pursuing better education, jobs, healthcare, or simply a safer place to live.

This is obvious when looking at average monthly salaries in the region (2016 figures; USD): Kazakhstan (\$349); Kyrgyzstan (\$212); Tajikistan (\$99); and Uzbekistan (\$135). In consequence, about 25–35% of the economically active population in Kyrgyzstan has engaged in international labour migration. The respective figure for Tajikistan is similar: up to 25–30% of the economically active population are labour immigrants in other countries. The number of international labour migrants in Uzbekistan has also grown rapidly over the last several years.

More general political and/or institutional factors apart, this clearly documents that it is first and foremost economic incentives driving people to emigrate. Motives of that kind are rational motives and can hardly be influenced or removed without modifying the potential structural causes at the root of the problem.

In any case, for the elaboration of reasonable recommendations, a distinction needs to be made between combatting the root causes – including the various time frames required for such strategies to be successful – and an amelioration of symptoms, which require less far-reaching and less costly strategies to reap the desired benefits.

General causes of brain drain and labour migration

Clearly, in terms of good versus bad job opportunities, income levels, educational achievements, and so forth, both push factors in countries of origin and pull factors in host countries cannot easily be influenced by short-term or medium-term strategies. However, low-income countries can contribute to diminishing the strength of push factors. With respect to jobs and job creation, an important step would be to increase the attractiveness of the home country by increasing the competitiveness of wages and productivity in critical high-skilled occupations. Since many high-skilled people work in the public sector, it is important to improve meritocracy and reduce red tape and cronyism in public employment.

Overall, however, there is no one-size-fits-all, ideal-type solution to the problem by way of political intervention. The most general claim that could be made is that, in order to reduce brain drain, policies need to raise the potential benefits in the countries of origin rather than restrict migration altogether. In consequence, the literature on Central Asia often underlines the need to improve governance and, where they exist, to strengthen existing institutional settings related to the phenomenon. Only long-term policies are ultimately able to address the root causes of persistent emigration. Among such policies are:

- Private sector development, job creation, and public sector reform;
- Improvements in tertiary and post-graduate education;
- Ensuring more opportunities for women;
- Improvements in meritocracy and reduction of red tape and cronyism in public employment;
- Guaranteeing human rights and civil liberties;
- Discouragement of citizens from leaving in the first place by giving them a reason to stay.

If such policies were achieved, and if they could be coupled to the secular trends of greater global integration and technological advances, which both increase connectivity in terms of transportation and communication, this might lead to a situation where skilled migration increasingly involves shorter durations and circular paths (brain circulation), thus ultimately resulting in gains for countries of origin.

Such general suggestions focusing on the root causes of migration and of brain drain and being concerned with the overall structural and institutional context are certainly adequate. Yet, recommendations aimed at improving governance capacity (good governance), institution-building, and guaranteeing human rights and civil liberties are of such general character that they hold for almost any country worldwide and do not specifically address the case of Central Asia.

There are several more specific aspects worth considering. These become obvious if one turns attention from the general causes of migration, and from the respective long-term measures

to combat them, and rather envisages other more specific deficiencies that may also be responsible but may be easier to solve in a short-term or medium-term perspective. Most of these are linked to cross-national cooperation, to systems of education, to research, and to the exchange of views and experiences.

Strengthening regional cooperation between governments

Since borders are beyond control and little can be done to really cut down on immigration, there must be a seismic shift in the way migration is addressed: governments must reorient their policies from attempting to curtail migration to coping and working with it to seek benefits for all. The flows cannot be effectively constrained and must instead be creatively accommodated.

Under current circumstances, trying to keep the highly skilled at home is unrealistic. What is more likely to succeed is a diaspora model that integrates present and past citizens into a web of rights and obligations in the extended community, defined with the home country as the centre.

With a view to legal rights, things like dual citizenship may be envisaged. Other options are granting citizens living abroad hitherto denied benefits such as the right to hold property and to vote via absentee ballot. Such benefits, however, would make sense only to the extent that they are balanced by obligations such as, for instance, the taxation of citizens living abroad.

Even only a slight tax on Central Asian nationals living abroad would substantially raise domestic government revenues. At the same time, governments of receiving countries are advised to integrate migrants into their new homes in ways that minimise social costs and maximise economic benefits. Policies of that kind should include children's education and grants of limited civic rights.

A forward-looking migration policy would need to solve the problem of asymmetric interests between receiving countries and countries of origin. The aim cannot be the unilateral maximisation

of interests of either the host or the sending country. One would need to search for a compromise benefitting both sides.

In the interests of overcoming that asymmetry of interests and to achieve an optimum level of open and closed borders, a new institutional architecture might be required at the regional, cross-national, or international level.

What Bhagwati once envisaged with a view to the creation of a World Migration Organization, which would start by juxtaposing each country's entry, exit, and residence policies towards migrants, might also be practicable at a lower scale. This would require stronger cooperation between Central Asian countries and, also, between the Central Asian countries and the most important receiving countries, i.e., in this case, the Russian Federation.

Such an organisation should work out appropriate agreements on the free movement of people, including a system of compensation for brain drain. This would be a kind of 'Central Asian Bhagwati tax', representing a fair compromise between the asymmetric interests of both groups of countries. In order to arrive at such an agreement, the countries concerned may be assisted by the ILO and the UN Population Division of the Department of Economics and Social Affairs.

In brief:

- Strengthen intra-regional cooperation between governments and the responsible agencies dealing with (high skilled) labour migration;
- Strengthen international cooperation between the governments of sending countries and the governments of host countries;
- Grant an extended set of rights to migrants, such as dual citizenship, the right to hold property, and the right to vote via absentee ballot;
- Impose obligations such as the taxation of citizens living abroad;
- Institutionalise a regional redistributive mechanism that compensates for brain drain.

Improving education, research, and the exchange of views

Perhaps the most frequently made suggestion made by all symposium participants concerned the collection of accurate information and the exchange of information across the borders of national scholarly communities. The symposium itself has been said to have been an excellent opportunity to network. It is precisely the establishment of scholarly networks – not only concerned with researching migration issues – that represents a relatively low-cost strategy to be supported by governments and international donors. The symposium was particularly welcomed because it was one of the few occasions giving students, more advanced scholars, and policymakers a chance of engaging in debate and weighing experiences made with brain drain in one country with those of another.

Governments, research institutions, and international donor organisations are therefore well-advised to invest energy and resources into making this happen on a more frequent scale. Labour migration is of course an extremely wide field incorporating a great number of aspects of concern to social, political, and economic dimensions of Central Asian political economies. It is advisable, therefore, to organise more specific events and conferences addressing these dimensions in a systematic manner. It is conceivable that governments and national research centres would build up and institutionalise platforms where communities of researchers and policymakers could meet and discuss the commonalities and the specifics of the various dimensions across all countries of the region.

Unless the institutional and structural conditions in the country of origin are favourable to research, it may be difficult to retain both resident and returning professionals in the long term.

With respect to education, research, and the support of human resources, the following suggestions may be considered:

- Countries can alleviate the negative effects of brain drain and promote brain gain or brain circulation by investing in local research centres and institutions and by adequately supporting researchers;
- Host countries can promote migration programmes and regulation, for example, by offering special scholarships that encourage the return of migrants after their studies, or after a short period of time working in that country (see, for example, the Bolashak scholarship for Kazak students);
- Countries may try to attract talented students from abroad in addition to retaining their own students by setting-up high-quality institutions such as, for instance, Nazarbayev University in Kazakhstan;
- Countries may try to reduce high-skilled migration by offering joint programmes with foreign universities or even attracting branches of foreign universities (see, for example, Webster University in Uzbekistan);
- Countries and local research institutions may set up cross-national research platforms for the exchange of data and information across the whole of Central Asia, not only with respect to problems of migration;
- Regular small-scale events and conferences could gather scholars from all countries in the region who deal with specific aspects of migration from social, political, and economic perspectives;
- Authorities in receiving countries could offer scholarships and PhD grants to students who are ready to return to their home countries after graduation.

In the foregoing, the focus has been on the causes habitually triggering brain drain and the migration of highly skilled professionals. A distinction was made between long-term and more short- to medium-term strategies for improving the situation. Yet, the fact remains that labour migration and brain drain are not likely to diminish easily – not least due to structural and institutional deficiencies and to the underlying rational motives of people to enhance their status and living conditions. One would therefore need to turn to what have been called ‘the symptoms’ by which these causes materialise in the real world. Throughout the symposium, two aspects received major attention in

that respect: the problem of remittances, and the use made of them in the countries of origin; and secondly, the actual and potential role of diaspora communities in receiving countries.

Symptoms: Remittances

In general, remittances and their impact on households, communities, and national economies in Central Asia have not been studied systematically by Western scholars or even by international organisations. This is different for scholars working in the region. However, most of the work has been carried out in the Russian language, or in the country's respective national language and, hence, is not easily accessible to an outsider.

While Uzbekistan banned this kind of research until recently, in Tajikistan and Kyrgyzstan, the study of remittances and their impact is one of the most popular topics in the economic and social sciences. Research on it is systematic and ongoing. The panel studies of living standards regularly carried out in Tajikistan since about 2003 also include modules on migration and remittances. In Kazakhstan and Turkmenistan, the problem of money transfers tends to be less relevant.

Central Asia hosts several of the most remittance-dependent countries in the world. The impact of migration on national economies is among the greatest worldwide.

For instance, Tajikistan is the world's leading country in the proportion of remittances to GDP. In 2007, Tajik migrants sent home over US\$1.8 billion through banks, or up to 30% of national GDP. There are, however, large fluctuations. After reaching a temporary peak before the financial crisis, transfers first declined and then climbed again, thus reaching approximately US\$ 2.5 billion in 2018 and amounting to 32% of the country's GDP.

Internationally, Kyrgyzstan also ranks high in the list, with 35% of its GDP, or US\$2.5 billion, in 2017. Uzbekistan's immigrant population is the largest in Central Asia in absolute numbers. Of all

Central Asian countries, Turkmenistan has the lowest number of immigrants working abroad. Overall, remittances frequently surpass annual Foreign Direct Investment and Official Development Assistance in many of these countries.

Remittances have several positive implications. They help thousands of households to survive, particularly in the more remote and poor agrarian regions such as, for instance, the Ferghana Valley.¹ Financial support from the migrant portion of a family may also prevent potential social tensions and unrest.

Overall, however, remittances do not necessarily contribute to economic development as such; for instance, through the establishment of companies and networks of small enterprises.

As argued by many participants of the symposium, the use of remittances in the country of origin is predominantly limited to private consumption and to the purchase of consumer goods. It primarily represents a strategy of survival for migrants' households. A high percentage goes to material assistance to families and relatives, to payment for medical services, and to the acquisition of more expensive goods. At the same time, the share of money transfers invested in the education of children continues to be relatively small. Contrary to their impact on the stabilisation of individual households, from a development perspective and in the long-term, these aspects of brain drain clearly have a negative impact on national economies.

Migrants use a whole range of different international and national money transfer systems to send money home. Official channels are circumvented most of the time. Migrants still bring money home themselves or send earned money unofficially via friends, relatives, or informal money transfer systems. This makes the measurement of the precise scale and scope of remittances quite difficult and prevents governments from coming up with programmes aimed at using remittances

¹ A valley in Central Asia spread across eastern Uzbekistan, southern Kyrgyzstan, and northern Tajikistan

for development goals and community assistance. At the same time, it also prevents governments from using the transfers inappropriately.

Among the most often heard suggestions and recommendations during the symposium that were aimed at a more appropriate use of remittances, the following have been mentioned:

- If subscribing to an endogenous growth theory, the expansionary effect of remittances on development would be greater when they are spent on investment in human capital;
- Migrants should therefore be encouraged to invest in business activities and in social and economic projects in local communities;
- Using financial incentives, migrants should be encouraged to transfer their money through official rather than personal channels;
- In order to develop programmes that channel remittances to development in sending and receiving countries, further research is needed into the total volume of remittances and money transfers, and the role remittances play in government activities, in migrant households, and in local communities.

Symptoms: Diasporas and migrant communities

It is far from clear as to what extent migrants wish to gather and become active in their respective diasporas in the receiving country. Systematic comparative data on consolidated diaspora organisations is equally lacking. Nevertheless, as regards institutional arrangements, two countries of Central Asia have offices dealing with their diasporas at the sub-ministerial level (Kazakhstan and Uzbekistan), one country has special offices (Tajikistan), while Kyrgyzstan and Turkmenistan do not seem to have dedicated diaspora offices at all. This is not to say that one type of institutional arrangement for dealing with a country's diaspora is better than another. It should be based on the needs of the diaspora, the country, and the existing institutional structure.

In general, diaspora policies in most Central Asia countries are still under development. Most countries either do not have policies towards their diaspora populations or, if they do, they have

only developed them recently. For those that do, most developed these after 2000 or their development is ongoing or under discussion. Only few explicitly link diaspora policy to development policy in the country. Most of the time, diaspora policy tends to be part of foreign policy and, for that reason, diaspora offices are often housed within ministries of foreign affairs.

Although – studies in the original languages apart – there are large gaps in researching this problem, it can be said that for the diaspora of nearly every Central Asian country, there are several diaspora organisations. This indicates that migrants identify themselves to be from these countries and that they have some nostalgia towards their home counties. Recognising this, several Central Asian countries use these external diaspora organisations as their point of contact and in some cases are offer direct financial support to them.

By far the largest migrant communities from Central Asian countries are hosted by the Russian Federation. This implies that several Central Asian countries are highly dependent on just one source country for the bulk of their remittances. As the largest country and the largest economy in the region, Russia is the major source of remittance earnings.

Starting in the 2000s, the percentage of total immigrant flows from Central Asian countries to Russia rose from 24.4% (2000-2004) to 33.5% (2005-2009) and skyrocketed at 40.4% in 2010-2013. Workers from Central Asia are the main migrant group in the Federation and the same holds true for students, researchers, and high-skill professionals. While between 2000 and 2007, Russia hosted, on average, 12 million migrants, making up 8-9% of its total population, since about the mid-2000s, Kazakhstan has emerged as a new destination for Central Asian migrants. Over 200,000 Kyrgyz, 50,000 Tajiks, and 250,000 Uzbeks worked in Kazakhstan in 2007. At the same time, the number of migrants from Kyrgyzstan, Tajikistan, and Uzbekistan leaving for Russia has increased further since the economic downturn in the late autumn of 2008.

We know relatively little about the living conditions of the faction of migrants possessing above-average skills and qualifying for the status of ‘brain drainers’. This also concerns the stability of brain-drain communities; their organisational strength; and their willingness and capacity to cooperate among themselves, with institutions of the receiving country, and with the countries of origin. In general, and not only with a view to Central Asian diasporas hosted by the Russian Federation, several preliminary recommendations may be offered both with respect to gaps in knowledge and to potential policies to be adopted.

Researching diasporas

- Improve the availability and the quality of data on the size and characteristics of the Central Asian diaspora population. In most cases, there is a lack of information on the size and composition of a country’s diaspora population. This represents a barrier to the creation of an effective diaspora policy;
- Determine the exact levels of involvement of Central Asian diasporas with their home countries; for instance, their desire and willingness to assist with development;
- Membership in diaspora organisations abroad is a good indicator of links to home countries. Some countries are in the process of carrying out skills inventories of their diaspora populations, which is a positive sign and should be supported across the region;
- A further gap that would need to be closed is information on existing diaspora policies. More detailed research needs to be carried out, including in-country discussions with government officials in charge of diaspora or migration policy;
- Host country universities can be important actors in that they could design diaspora programmes allowing academics to return to their country of origin. They may also create partnerships that facilitate collaborative arrangements between academics established in the host country and universities in students’ countries of origin.

Diaspora policies

- Diaspora goals should be clearly defined and linked to development rather than to foreign policy. The best option is to link diaspora policy to national development planning. In this way, countries can more clearly articulate how they want the diaspora to be involved and the diasporas to understand their role;
- Moreover, there is a need for a better tracking of diaspora populations. In order to be able to harness the resources of the diaspora populations, it is necessary to understand the size, characteristics, geographic distribution, and willingness of the population to engage with and assist the home country;
- Governments are usually facing serious challenges in clearly identifying the professional, financial, and social capital of diasporas abroad and in matching these forms of capital with concrete development strategies at home. This problem needs major attention;
- Governments could use their embassies and other representatives abroad to learn about their diaspora populations. Diaspora groups themselves should be involved in this process;
- Diasporas and diaspora organisations representing each Central Asian country should be encouraged to network and establish links among each other, with a view of resolving problems in a coordinated manner.

To conclude, the exercise of coming up with a systematic list of suggestions and policy recommendations still needs further research, possibly to be supported by national and international organisations concerned with social, economic, and political development in Central Asia. The symposium on ‘Turning brain drain into brain circulation’ was an encouraging first step in that respect. We are convinced, to speak on behalf of all participants, that if we advocate further events of this kind, we could help in encouraging skilled migrants to return to their countries of origin and thus bring with them knowledge, expertise, access to global networks, capital and, not least, international sensibility and the ability to accept different worldviews.

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