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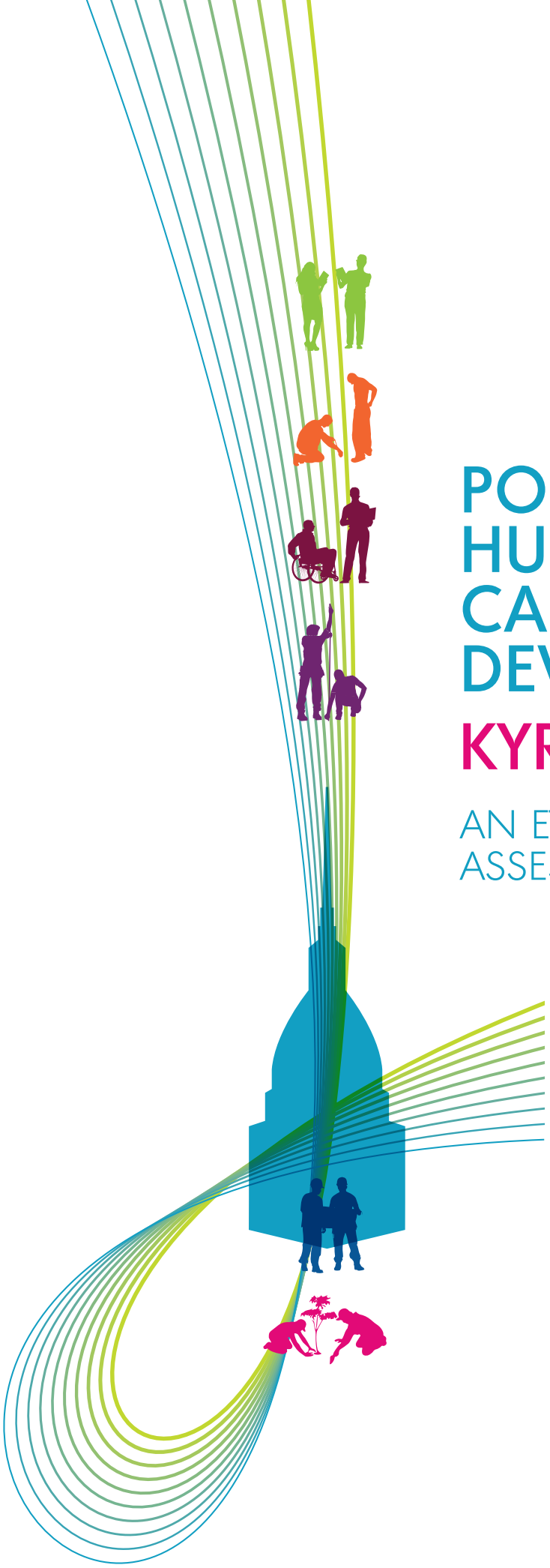

POLICIES FOR HUMAN CAPITAL DEVELOPMENT

KYRGYZSTAN

AN ETF **TORINO PROCESS** ASSESSMENT

THE EU AGENCY SUPPORTING COUNTRIES TO DEVELOP THROUGH LEARNING

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The report was prepared in the framework of the Torino Process 2018-20 by Helmut Zelloth, ETF.

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PREAMBLE

The European Training Foundation (ETF) assessment process provides an external, forward-looking analysis of countries' human capital development issues and VET policy responses from a lifelong learning perspective. It identifies challenges related to education and training policy and practice that hinder the development and use of human capital, taking stock of the challenges and making recommendations for possible solutions.

Such assessments are a key deliverable of the Torino Process, an initiative launched by the ETF in 2010 with the aim of providing a periodic review of vocational education and training (VET) systems in the wider context of human capital development and inclusive economic growth. In providing a high-quality evaluation of VET policy from a lifelong learning perspective, the assessment process builds on four key principles: ownership, participation, and holistic and evidence-based analysis.

For the ETF, human capital development is about supporting countries in the creation of lifelong learning systems that provide opportunities and incentives for people to develop their skills, competences, knowledge and attitudes throughout their lives, with a view to improving their employment prospects and realising their potential, as well as contributing to prosperous, innovative and inclusive societies.

The main purpose of these assessments is to provide a reliable source of information to enable the planning and monitoring of national education and training policies with respect to human capital development, as well as offering a foundation for programming and policy dialogue in support of these policies by the European Union and other donors.

The ETF assessments rely on evidence collected by the respective countries using a standardised reporting template (the National Reporting Framework – NRF) within a participatory process involving a wide variety of actors with a high degree of ownership. The findings and recommendations of the ETF assessments have been shared and discussed with national authorities and beneficiaries. However, the ETF takes full responsibility for each assessment and for any errors and omissions contained therein.

This assessment report starts with a brief description of the strategic plans and national policy priorities of Kyrgyzstan (Chapter 1). It then presents an overview of issues related to the development and use of human capital in the country (Chapter 2), before moving on to provide an in-depth discussion of the problems in this area that, in the view of the ETF, require immediate attention (Chapter 3). Chapter 4 offers overall conclusions of the analysis.

The annexes provide additional information: a summary of the report's recommendations (Annex 1) and an overview of Kyrgyzstan's education and training system (Annex 2). The Torino Process national report compiled by the country itself can be found here: https://openspace.etf.europa.eu/trp/torino-process-2018-2020-kyrgyzstan-national-report

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EXECUTIVE SUMMARY

Context

This European Training Foundation (ETF) assessment provides an external, forward-looking analysis of the country's human capital development issues and VET policy responses from a lifelong learning perspective. It is based on evidence contained in Kyrgyzstan's Torino Process national report, which was compiled in 2019 using a standardised questionnaire (the National Reporting Framework – NRF) and additional information sources, including international analyses.

The report comes at the right time. It provides seven hands-on recommendations that can assist national authorities with the prioritisation of policy actions following the endorsement by the Kyrgyz government of a new development model that emphasises human capital in relation to economic well-being and the quality of the environment. The new model, which is to be mirrored in education and training policies, will have medium- and long-term goals that are yet to be fleshed out.

While the National Development Strategy for 2040 provides a new framework and opportunity to boost human capital development in the country, its implementation will be affected by the COVID-19 pandemic for the foreseeable future. The COVID-19 crisis is not only placing urgent demands on Kyrgyzstan's education and training system to undertake massive efforts in order to make the transition towards distance education, but it is also affecting society and the economy as a whole far beyond its medical and educational aspects. The COVID crisis has an impact on employment opportunities, migration and trade, and thus has a negative impact on tax revenues too. It has therefore become even more important to prioritise policy actions and make the best possible use of limited resources.

Findings on human capital

Over the last two decades Kyrgyzstan has made considerable progress in key development areas, such as poverty reduction and education-related reforms. Yet the country still has a long way to go, as it underperforms in many international rankings, from human development to transition qualities, from the quality of education to the level of innovation and up to perceived corruption. In addition, large-scale labour migration abroad reduces the country's human capital stock and makes it highly dependent on remittances. Sustainable development is hampered by the high share of informal economy and the country is vulnerable to the negative impacts of climate change and some health risks that affect labour capacity. On the other hand, Kyrgyzstan has strong social capital and other assets, such as a high demographic dividend that still needs to be reaped and the high educational attainment of its population, which has the potential to be transformed into quality skills.

The report identifies the most pressing challenges for human capital development in Kyrgyzstan, specifically the country's current and future economic and digital transformation and the ongoing issue of poverty and the rural–urban divide. While the former challenge calls for a more responsive VET and lifelong learning system, the latter calls for an inclusive, integrated approach to skills development.

Economic and digital transformation calls for responsive VET and lifelong learning

Given the ongoing shifts in the country's economic sectors, the government's definition of priority development sectors, and other emerging business sectors and niches with future potential, the ETF assessment finds that the demand for human capital development is growing and becoming more

diversified. In particular, VET and lifelong learning will need to be better prepared and respond more quickly in order to make a significant contribution to the country's new growth model.

Skills demand and supply are changing and the distribution problems in VET need to be tackled immediately. The adult population, including the teaching workforce, has a significant gap in digital skills, which is particularly pronounced in rural areas. Adult learning has been a blind spot for policy attention and a grey area for information and evidence. As a result, the provision is far from meeting the current and future demand envisaged in the country's economic and social policy goals.

Tackling poverty and the rural–urban divide calls for an inclusive, integrated approach to skills development

Of serious concern for human capital development are two phenomena that are closely interlinked and need to be addressed together. On one hand, a substantial urban–rural divide and the resulting inequalities do not allow the country to make full use of its potential. On the other hand, a high level of poverty persists and continues to undermine the potential of human capital. Both phenomena tend to become vicious circles and call for a socially inclusive, integrated approach to skills development.

Limited choices for education and training and challenging conditions for learning and training must be overcome. Putting the priority on tackling poverty and reducing disparities in the quality of and access to education and training will become even more necessary because of the impact of the COVID-19 pandemic, which is expected to hit the poor, vulnerable and young the hardest.

Recommendations for action

A clear prioritisation of human capital interventions is needed in light of the many gaps that exist in the country and its limited investment capacity.

Policies to raise human capital in Kyrgyzstan require a rebalancing among the various sectors of education and training. While primary, general and higher education have received a great deal of policy attention in the past, the ETF assessment suggests that the strengthening of VET and its labour market relevance must now become an immediate priority. Equal priority should be given to lifelong learning. In this respect more attention should also be paid to the coordination of new developments[1] across all education subsectors, including VET. Continuing vocational education and training should be considered systematically as an element of VET policies and the lifelong learning agenda, and receive adequate funding.

Stronger alignment of VET with priority economic sectors

VET provision at all levels (initial, post-secondary and continuing VET) should more closely and rapidly follow the trend towards a diversified, digitalised economy, including in the country's priority sectors for future development. This is especially important for the agro-industrial complex, light industry clusters, tourism and sustainable development, and green investment in public infrastructure. Efforts should also be made to improve the connection between the education and training sector and sectoral development strategies, which rarely consider the importance of VET and skills provision from a lifelong learning perspective. An independent review of the national list of occupations and VET

[1] Examples include learning outcomes and key competences, such as digital skills and competences.

profiles should be carried out in close cooperation with business organisations. Special attention should be paid to ICT fields of study at different qualification levels.

Launching a Digital Skills Initiative

Considering the gap between the country's high policy ambitions to digitalise the economy and society and become a digital hub in the region on the one hand and the low level of digital literacy among the population on the other hand, the ETF suggests that Kyrgyzstan launch a National Digital Skills Initiative to span all levels of education over a life cycle of at least ten years. Kyrgyzstan could test and adapt the European Digital Competence Frameworks for organisations, teachers and citizens, together with the related tools[2]. Kyrgyzstan should also engage in a large-scale information and training campaign on digital literacy for adults. A special funding facility could be associated with the Skills Development Fund.

Systematic and well-coordinated action for skills anticipation

To overcome the current piecemeal approach, which is characterised by the development of various instruments and tools within the remit of different organisations and projects, uncoordinated implementation that often lacks regular follow-up, and the consequent risks to sustainability, the ETF recommends establishing inter-ministerial operational leadership and coordination mechanisms for the labour market and skills anticipation. A master plan should establish a roadmap for systematic and regular application of the most viable tools, including a division of work among the various institutions involved and monitoring to determine whether the results are used by education and training planners. To support the sustainability of new tools, the capacity of the Kyrgyz higher education sector should be leveraged and national resources allocated.

Focusing on the quality of skills development

As quality assurance in VET is not yet fully developed, any existing gaps need to be closed and links need to be made between quality assurance in general education and VET. Coordinated efforts are required across the subsectors of education. Since 2019 a number of sectoral dissemination and competence centres have been set up in primary and secondary VET. However, thought might also be given to developing them into VET centres of excellence, which would span the education subsectors and cover applied research and business incubation.

Needs-oriented continuing professional development of VET teachers and trainers should be expanded and a standard introduced for assessing the quality of learning infrastructure, including aspects of internet connectivity.

Building a National Training Alliance to foster lifelong learning

To create better lifelong learning opportunities, especially through continuing vocational education and training, a dedicated National Training Alliance of key VET stakeholders should combine the forces of several partners from the public and private sectors in order to focus on reskilling and upskilling adults with outdated or low levels of skills. In addition to training initiatives, the alliance could implement a range of other activities, including lifelong learning weeks in rural areas, and help to create a lifelong

[2] For example, SELFIE or SELFIE for work-based learning is an online self-reflection tool that helps primary and secondary general and vocational schools to reflect on how they are using digital technologies for effective and innovative teaching and learning: https://ec.europa.eu/education/schools-go-digital_en

learning culture among the population. Given that the capacities of public providers may be limited, the capacity of the private training sector should be assessed and its role strengthened.

Strengthening the skills dimension in rural development

Regional and rural development initiatives and funds should integrate and strengthen the skills dimension more systematically to increase access to education and training beyond primary VET. An innovative, flexible approach that uses blended learning, including distance education and modular environments in secondary education and VET, should be tested and evaluated. This would also require specific attention to infrastructure development, including better connectivity.

To make the education and training offering more attractive to people in rural areas, the range of VET programmes needs to be broadened beyond traditional occupations. Also, practical training in enterprises and organisations should be incentivised both for practical training providers and for students.

Enhancing support services to ensure access to and completion of skills development programmes

To tackle the high dropout rate in VET and the phenomenon of students who fail to attend full-time because of the requirements of family work, support services should be enhanced for both students and families. Proper student counselling and career guidance can improve access for vulnerable groups and prevent students from dropping out of school and VET. Additional learning support opportunities could also play a significant role in this respect. A pilot financial support scheme for poor families could be tested to see whether it has a positive impact on school and VET attendance.

The effectiveness of the allocation of training resources for the unemployed should be reviewed and funds increased for active labour market measures, especially for training and career guidance for the most vulnerable groups.

Further attention should be paid to data collection and monitoring on the participation of vulnerable groups in education and training. The current approach is based on a narrow definition of vulnerability[3].

[3] Data are typically collected on special needs students and orphans. However, even this limited information is not easily accessible across education subsectors.

1. INTRODUCTION

1.1 About this assessment

The government of Kyrgyzstan has set out a new development model with ambitious medium- and long-term goals. The country wants to become a digital hub on the Great Silk Road, based on a new economy in harmony with the environment, producing high added value and being attractive to business and investors.

The National Development Strategy 2018–2040 aims for Kyrgyzstan 'to be included in the group of countries of the world with above-average income in terms of gross national product (GNP) per capita' (Government of the Kyrgyz Republic, 2018). The strategy also sets out new priorities in human capital development for the next two decades.

Seen in this context, the ETF assessment comes at an important point. It can assist with the prioritisation of reforms and the design of actions by providing input for policymakers in the domain of education and training.

The ETF assessment process includes an extensive phase of desk research. It draws on information not only from the Torino Process national report (the National Reporting Framework – NRF) prepared by a team of national experts[4], but also the analysis set out in other relevant studies and the preparation of an issues paper that contains an overview of the themes discussed in the present assessment. The assessment has been finalised in consultation with the ETF country and thematic teams working with Kyrgyzstan and with national stakeholders in the field of education and training.

This effort coincides with the EU's new Central Asia Strategy and preparations for the next generation of the financial framework for the EU external action 'Neighbourhood and the World' 2021–2027.

As with other ETF assessments, this paper is not meant to be exhaustive. The national report for Kyrgyzstan covers a broad selection of issues related to human capital development and use, while the focus here is on the challenges that the ETF recommends addressing as a matter of priority.

1.2 Country overview

A country on the rise facing global challenges

With a population of roughly 6.5 million inhabitants that is projected to grow by nearly one million in the next decade, Kyrgyzstan is a lower-middle-income country with a large share of rural population. Apart from the service sector, the economy is dominated by mineral extraction, agriculture, and a reliance on remittances from migrant workers abroad[5].

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[4] The Torino Process national report 2018–2020 was prepared from April to November 2019 by a team of national experts from the Ministry of Education and Science of the Kyrgyz Republic; the Agency for Initial Vocational Education and Training under the Ministry of Education; the Ministry of Labour; and civil society organisations with a role in VET. The national team collected evidence and organised focus group meetings with stakeholder groups. The report was validated with the national stakeholder community in January 2020. It can be found at: https://openspace.etf.europa.eu/trp/torino-process-2018-2020-kyrgyzstan-national-report. Any NRF information used in the assessment is clearly attributed.

[5] Based on World Bank Open Data: https://data.worldbank.org/

Since the country gained independence from the Soviet Union 30 years ago, it has implemented remarkable reforms. Kyrgyzstan has been seen as a pioneer of democracy in the region. It was once hailed as the 'Switzerland of Central Asia' (Carnegie, 2016) and it was the first among the new independent states of the former Soviet Union to be accepted into the World Trade Organisation (WTO). In 2015, the country joined the Eurasian Economic Union (EAEU) and its economy has grown steadily in recent years. Indeed, its annual growth rate is around 4% of gross domestic product (GDP), which is nearly twice as high as the European Union (EU). In 2019, real GDP growth accelerated to 6.1% in the first three quarters, reflecting strong gains in the mining and manufacturing sectors. The fiscal deficit declined to 1.3% of GDP in 2018 (from 4.6% in 2017), contributing to a reduction in public debt to 56% of GDP (EBRD, 2019b). The country is heavily indebted to China, which holds more than 40% of its total external debt, and it has been identified as one of the developing countries most at risk of debt stress owing to its large number of foreign loans (OECD, 2019c).

The business environment has improved in recent years. In the World Bank's Doing Business 2020 report, the country was one of the 20 most improved countries, ranking 80th out of 190 countries for ease of doing business (World Bank, 2019b).

However, the country has a relatively open economy, so it is vulnerable to both external and internal shocks (OECD, 2019c). While robust GDP growth was expected to continue in 2020, the positive macroeconomic trend was affected by adverse factors. Inflation remained subdued (falling to 1.5% in 2018 from 3.2% in 2017) and stayed well below the central bank target of 5–7% (EBRD, 2019b). However, trade dependency on two countries, Russia and Kazakhstan, which account for 99% of Kyrgyzstan's trade with EAEU member states (NRF A.1.1, 2020), exposed risks when the two trading partners' economies slowed down. Similarly, the country's reliance on remittances from migrant workers started to have negative repercussions with the weakening of growth in Russia. In the first eight months of 2019, net remittances declined by 12% (EBRD, 2019b).

Finally, the COVID-19 pandemic impacts the economy of Kyrgyzstan in a negative manner in areas such as reduced remittance inflows, restrained domestic demand and hampered global trading (Focus Economics, 2020). Instead of continued growth, the IMF projects for 2020 a real GDP growth of minus 4% (annual percent change) and a high rise of the inflation rate with an annual percent change above 10% (IMF, 2020).

In this context, reduced tax revenues are to be expected in combination with crisis related spending pressures on public budgets. This in turn is likely to impact investment for human capital development, including education and training. Therefore, prioritisation in policies for human capital development are now crucial, especially for the short- and mid-term, to support the recovery of the economy.

Strengthening relations and enhanced partnership with the EU

Though its economy is mainly oriented to the Eurasian Economic Union (EEU), the relations between Kyrgyzstan and the EU have flourished over time and economic activities are on the rise. Kyrgyzstan is the EU's 133rd largest trade partner (out of 212 countries) with a positive trade balance for the EU (EC, 2020a). The country benefits from the EU's Generalised Scheme of Preferences plus (GSP+)

and the current annual trade between the EU and Kyrgyzstan is estimated at 400-500 million Euro (EEAS, 2020).[6]

The recent Enhanced Partnership and Cooperation Agreement (EPCA) between Kyrgyzstan and the EU and the new EU Central Asia Strategy, see trade and economic relations as an important area of cooperation which still has a significant potential for development. Apart from trade, other main areas of the EPCA are justice, freedom and security, foreign and security policy as well as political cooperation and reforms (including human rights and sustainable development).

In 2019, agreement was reached on enhanced cooperation in 24 other key sector policy areas, including employment and social affairs, education and youth, and research (EEAS, 2019). The EU made commitments to provide support in these areas through financial and technical assistance in the forthcoming period.

Kyrgyzstan receives substantial EU budget support to assist with the reform of its education sector[7] and with social protection. In the sphere of education and training, the country also takes part in the EU's Erasmus+ programme and has been an active participant in the EU-funded Central Asia Education Platform (CAEP) between 2015 and 2019. The country has thus engaged with EU partners in education reform and sector modernisation in higher education and VET, policy dialogue, knowledge sharing, regional and international cooperation, and thematic analyses and reviews.

1.3 Strategic context

The National Development Strategy of the Kyrgyz Republic 2018–2040 puts its focus on people, family and society; economic well-being and the quality of environment; and the public administration. The strategy pursues a new development model that draws on the country's culture, placing spiritual values, family and nature above material wealth. The strategy 'is primarily aimed at creating an environment for human development, fulfilling the potential of everyone who lives in our country, ensuring his/her well-being' (Government of the Kyrgyz Republic, 2018).

According to the strategy, Kyrgyzstan aims at the same time to join the group of countries with above-average income in terms of GDP per capita and achieve a reasonable balance between foreign investment and own resources in order 'to prevent excessive dependence on any country in the world'.

Economic policy seeks to focus on employment, creating productive jobs, stable incomes, attractive conditions for entrepreneurs, and innovative and environmentally friendly technologies. A stated priority of development policy is the digitalisation of the country and the large-scale implementation of information technology in production and management.

A set of medium- and long-term targets underpin these ambitions. Examples include increasing life expectancy to 80 years by 2040 and raising the monthly family income to the level of USD 450 by 2023. The country is also eager to improve its standing in a variety of international rankings. By 2023, Kyrgyzstan aims to catch up to the top 40 countries in the world in the Ease of Doing Business

[6] The GSP+ enables Kyrgyzstan to strengthen its economy by exporting 6 200 products to the EU without any tariffs or duties (EEAS, 2020). It is a special incentive arrangement for sustainable development and good governance in developing countries that are vulnerable to a lack of diversification and insufficient integration within the international trading system, and it applies to their exports to the EU.

[7] https://eeas.europa.eu/delegations/kyrgyz-republic/83128/budget-support_en

ranking, join the top 70 countries in the Global Competitiveness Index, and stand among the top 30 countries in the Happy Planet Index. In the struggle against corruption, the Kyrgyz government plans to enter the top 50 countries according to the Transparency Index.

By 2040, a new image of the individual is envisaged. He or she will take more responsibility for his or her actions and be an educated person striving for a healthy lifestyle. This is mirrored in the new vision for the education system, which is captured in the strategy. The focus is on personality development and on practical knowledge and competences. The future of education will be based on the nationwide use of digital technology and built around solving real-life problems and challenges. Every citizen will have the opportunity to obtain a quality education. As a result, raising the level of competences and skills is seen as one of the key factors for development.

The medium-term priorities for 2023 include achieving nationwide coverage for pre-school education, improving the quality and internet access of school education ('Schools of the Future') and higher education (including 'university-production systems'), forging better links between VET and the labour market, and giving support to migrant workers. Providing high-quality training for specialists, including labour migrants, is seen as necessary to the sustainable growth of incomes for the population (Government of the Kyrgyz Republic, 2018).

2. HUMAN CAPITAL: DEVELOPMENTS AND CHALLENGES

2.1 Overview

Kyrgyzstan faces a series of human capital development (HCD) challenges. The main HCD challenges identified from the information provided in the NRF are related to:

- increasing the county's income while combatting poverty
- the urban–rural divide and the resulting inequalities
- the prevalence of informal economy together with an unstable and unpredictable formal labour market
- the huge labour migration and related brain/skills drain, as well as a high dependency on remittances
- the government's ambitious digitalisation plan, which includes education and training

Most of these challenges point to a need to raise the level and quality of human capital in the country. While some features and trends in education and training point in a positive direction (e.g. better access to education for vulnerable groups, and increased funding for VET), others point in the opposite direction or even appear to have entered into a vicious circle. For example, the growing informal economy, serious problems in sustaining reforms, a lack of resources and capacities, the numerous obstacles to digital transformation, the continued low promotion and quality of VET, and the slow pace of structural change in training all offer little help towards achieving labour market relevance and overcoming underdeveloped social partnership and employer involvement in VET.

Many of these issues and challenges stand in contrast to the country's ambitious development goals and will require long-term efforts. Others call for immediate policy actions because Kyrgyzstan's younger generation in particular has high expectations of its government.

2.2 Gaps in human capital indicators and outcomes

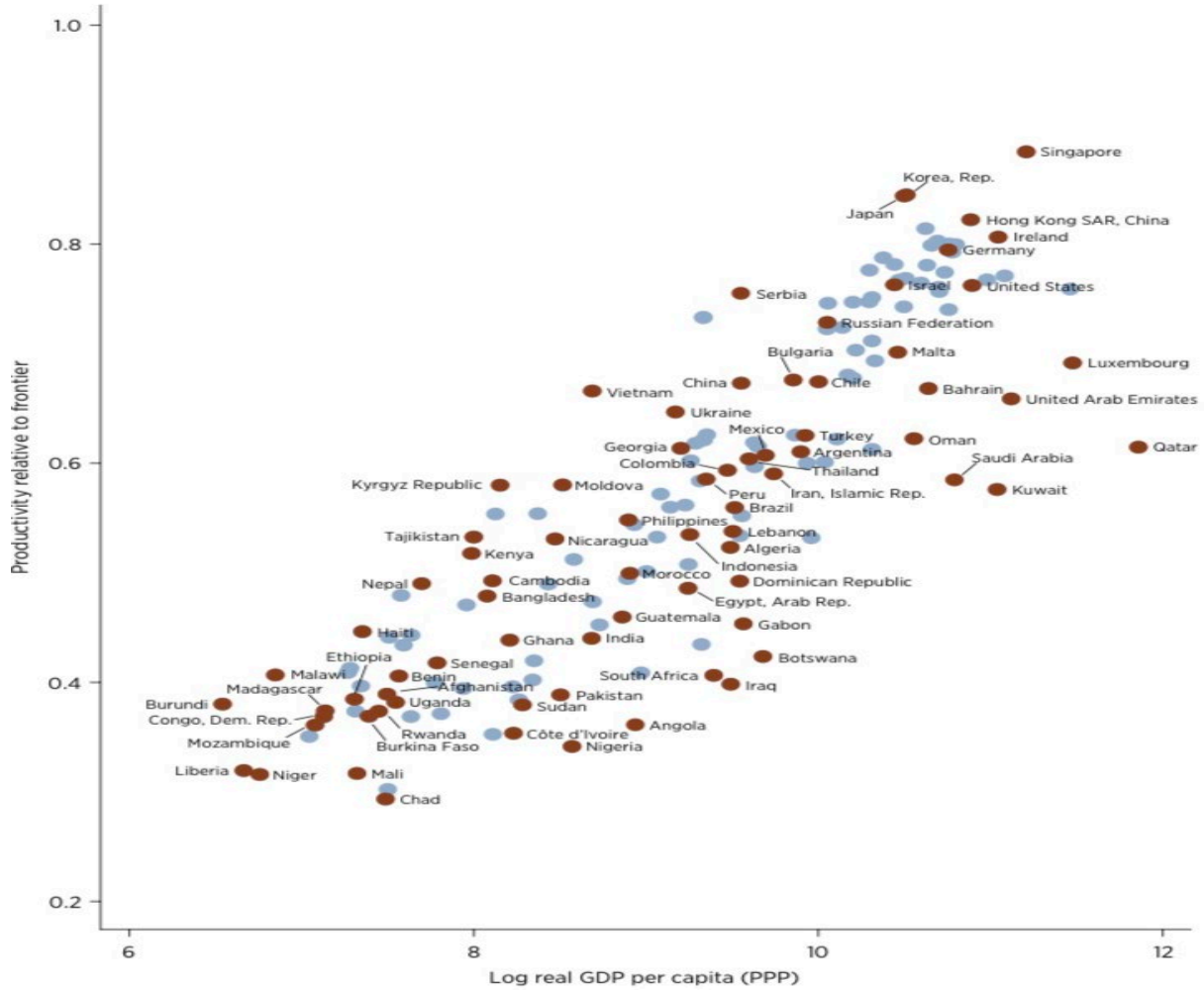
Human development – improving slowly but marked by inequality of distribution

'Kyrgyzstan as a landlocked country with limited resources will focus on the development of human capital', stated the country's Minister for the Economy at a meeting of the Cooperation Council (AKI press, 17 October 2018).

The World Bank's 2018 Human Capital Index (HCI)[8], which was launched at the end of 2018, highlighted large gaps in the outcomes of human capital across 157 countries worldwide. Kyrgyzstan stood in the middle of the field in 75th place.

[8] The Human Capital Index directly links health and education outcomes with economic growth, indicating how shortfalls in health and education among children today will reduce the productivity of the next generation of workers (World Bank 2018b, 2018c, 2019c). The HCI is part of the World Bank's Human Capital Project, which is a global effort to accelerate the amount and quality of investment in people: www.worldbank.org/humancapitalproject

FIGURE 2.1: THE HUMAN CAPITAL INDEX (2018)



Source: World Bank, 2018c, https://openknowledge.worldbank.org/bitstream/handle/10986/30498/33252.pdf?sequence=5&isAllowed=y

Human development in Kyrgyzstan is slowly but steadily improving according to the UNDP's key indicator[9]. The country's score on access to knowledge, living standards and a long and healthy life increased by 8.8% between 1990 and 2017 (from 0.61 to 0.67, respectively) (World Bank, 2019d). The country ranks at the lower end of the medium human development category (122nd out of 189 countries according to the 2018 statistical update), achieving a higher score than Tajikistan and a lower one than Uzbekistan (UNDP, 2018).

Between 1990 and 2017 Kyrgyzstan's life expectancy at birth increased by 4.8 years, while mean years of schooling rose by 2.3 years and expected years of schooling increased by 1.4 years. By

[9] The Human Development Index (HDI) is a composite index that measures average achievement in three basic dimensions of human development: a long and healthy life; access to knowledge; and a decent standard of living. In terms of scoring, 1 = the most developed. A long and healthy life is measured by life expectancy. Knowledge level is measured by mean years of education among the adult population (which is the average number of years of education received in a lifetime by people aged 25 years and older), while access to learning and knowledge is measured by expected years of schooling for children of school-entry age, that is, the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life (UNDP, 2018).

contrast, the gross national income (GNI) per capita decreased by 4.8% over the same period (UNDP, 2018).

However, when adjusted by a coefficient for inequality in the distribution of human development across the country's population, the human development index (HDI) falls to 0.606 – a 'loss' of 9.8% in human development owing to inequality. This is less than in Europe and Central Asia (11.7%) and less than the average loss for medium HDI countries (25.1%, see UNDP, 2018). However, it would make a considerable difference if inequality were tackled, including in relation to issues like access to education and training.

The Gender Inequality Index, which can be interpreted as the loss in human development owing to inequality between female and male achievements (in the three dimensions of reproductive health, empowerment and economic activity), ranked Kyrgyzstan 91st out of 160 countries in 2017 (UNDP, 2018), behind Tajikistan and Uzbekistan.

Finally, the government of Kyrgyzstan has made commitments towards achieving the Sustainable Development Goals (SDGs) as part of the 2030 Sustainable Development Agenda adopted by all United Nations Member States in 2015.

Governance gaps slow down transition

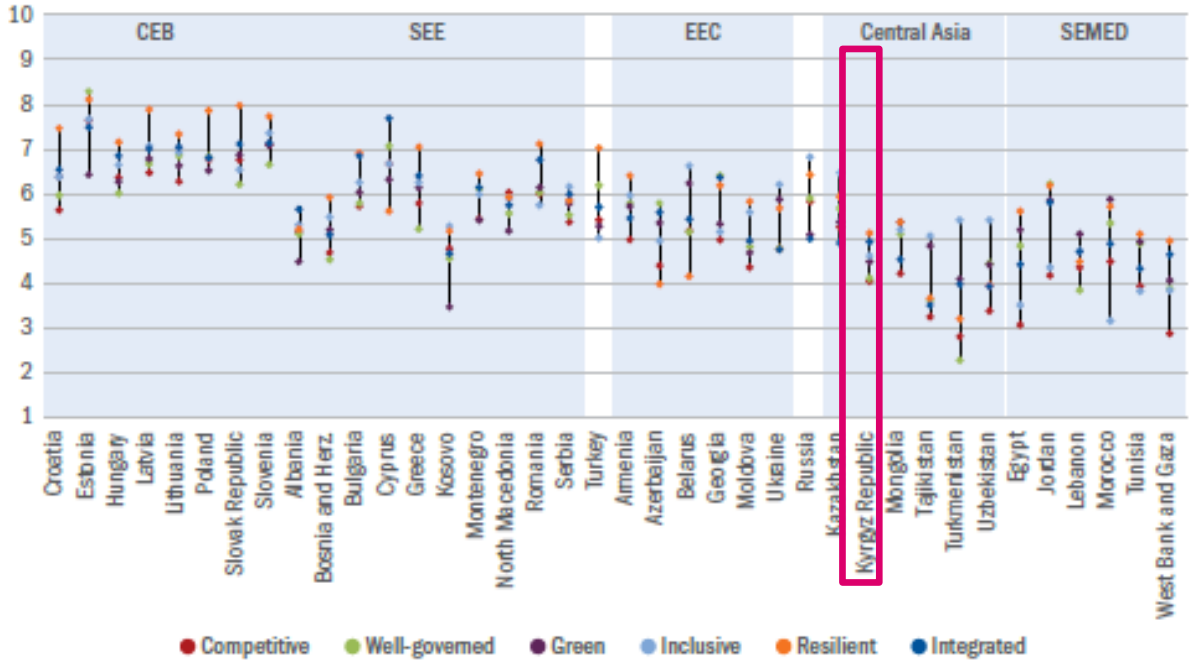
Weak governance can distort markets and result in the inefficient allocation of capital and labour in a country. It affects not only well-being but also growth and confidence in public institutions, and it has an impact on intentions to emigrate (EBRD, 2019d). The latest EBRD transition report finds that Kyrgyzstan has large and persistent governance gaps relative not only to advanced economies but also to emerging markets. Narrowing the gap would yield a sizeable growth dividend for firms, support innovation-led growth and make residents happier and less likely to emigrate (EBRD 2019d).

In addition, income convergence has slowed in recent years. A comparison of 37 countries put Kyrgyzstan at the top of the scale (followed by Egypt and Kosovo) in terms of the length of time taken to achieve convergence with the G-7 average. Kyrgyzstan would need close to 120 years, or several generations, to catch up to the G-7 average for income. The current governance dividend in Kyrgyzstan is very small and has little effect on the overall length of time needed to achieve income convergence (EBRD, 2019d).

In the overall EBRD assessment of transition qualities (see Figure 2.2 below)[10], Kyrgyzstan somewhat improved its transition scores between 2018 and 2019 in four areas (competitive, well-governed, resilient and integrated) and stayed at the same level in two areas (green and inclusive).

[10] The EBRD assessment measures progress against six key qualities of a sustainable market economy, specifically to see whether they are competitive, well-governed, green, inclusive, resilient and integrated (EBRD, 2019c).

FIGURE 2.2: TRANSITION SCORES FOR SIX QUALITIES OF A SUSTAINABLE MARKET ECONOMY



Source: EBRD.
Note: Scores range from 1 to 10, where 10 represents a synthetic frontier corresponding to the standards of a sustainable market economy.

Source: EBRD, 2019c, https://www.ebrd.com/transition-report

From a societal point of view, more than 95% of the country's citizens are concerned about the low efficiency of state policy aimed at addressing the issues of low employment and welfare, high prices for food and services, significant migration, and other long-term social problems (Government of Kyrgyzstan, 2018).

At the same time, however, the country's position on the Happiness Index, which measures quality of life including income and other variables such as trust and social support, improved continuously between 2016 (Kyrgyzstan ranked 96th) and 2019, when Kyrgyzstan ranked 74th out of 153 countries (United Nations, 2020).

Other trends and factors affecting human capital development

According to international assessments, Kyrgyzstan faces a range of additional challenges that have an impact on human capital.

High demographic dividend still to be reaped

Kyrgyzstan has a relatively high demographic dividend with a young population. Roughly one-third of its citizens are under the age of 15. The dividend will start to rise by 2023 and continue to improve until about 2050 (UN, 2018). This could provide opportunities for labour market expansion if policies can harness the potential growth in key economic sectors. However, taking advantage of these opportunities in the future will require significant investments in human capital and policies that reduce emigration today (UN, 2019a).

Regional disparities and income inequalities

Despite internal and external migration movements, Kyrgyzstan still has a high share of rural population (close to 64%, ranking 41st out of 195 countries in 2018)[11]. The level of economic activity of the rural population was even higher than the urban one in 2013, but steadily decreased until 2017 (NRF B.1.1, 2020). In 2018, over 60% of the rural population in Kyrgyzstan were poor or vulnerable to poverty (IFAD, 2020)[12].

Significant wage disparities persist. In 2018 the average monthly salary (KGS 10 000 or 120 euro) of workers in the poorest regions (Osh, Batken) was only half the same figure for the wealthiest regions (KGS 20 000 in Bishkek and Issyk-Kul).

In 2018 the results of an integrated sample survey of households and labour force showed higher unemployment rates among the rural population for those with primary and secondary vocational education, but lower unemployment rates for those with higher professional education (NRF B.1.1, 2020). The female unemployment rate in rural areas was three percentage points higher than the rate for males.

The Gini coefficient for Kyrgyzstan, which measures the extent to which the distribution of income among individuals or households within the economy deviates from a perfectly equal distribution (0 is complete equality, 100 is complete inequality), was estimated at 27.7 for 2018 (World Bank, 2020) and had significantly improved since 2006. In international comparison, Kyrgyzstan has less relative inequality than many other countries, outperforming some EU Member States, most ETF partner countries (including Turkey), and also Russia, China and the US.

To raise the overall supply and level of human capital in the country, the remaining inequalities need to be reduced through inclusiveness and access to quality education and training.

Vulnerability to climate change and its negative impacts

A monitoring report on Kyrgyzstan's progress towards the Sustainable Development Goals (SDGs) stresses that the country is highly vulnerable to the negative impacts of climate change. Water resources and the agriculture sector are the most vulnerable sectors. The impact may be especially great on the rural economy and rural households, but also on the country's export of electricity. Most exposed to hydrometeorological disasters are the southern regions of Kyrgyzstan (Batken, Jalal-Abad, Osh). In 2017, Kyrgyzstan ranked 52nd overall on the Global Climate Risk Index, but came 11th in the number of fatalities per 100 000 inhabitants (OECD, 2019a).

Low levels of innovation and persistently high levels of corruption

Innovation development has fluctuated sharply in Kyrgyzstan in recent years according to the Global Innovation Index, which provides detailed metrics on the innovation performance of 129 countries based on data compiled by the World Intellectual Property Organisation and other institutes. The indicators explore a broad vision of innovation, including political environment, education, infrastructure and business sophistication. Since 2017, Kyrgyzstan has climbed five places (from 95th

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[11] Source: https://www.indexmundi.com/facts/indicators/SP.RUR.TOTL.ZS/rankings; World Bank staff estimates based on the United Nations Population Division's World Urbanisation Prospects: 2018 Revision. Definition: Rural population refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between the total population and the urban population.

[12] International Fund for Agricultural Development (2020). Investing in rural people in the Kyrgyz Republic. Rome, Italy. https://www.ifad.org/documents/38714170/40806265/kyrgyzstan_2018_web.pdf/c30b60ce-c1b0-46dc-8883-dbf40e12bf9c

in 2017 to 90th in 2019) with an index of 28.4 (Cornell University, 2019). However, it remains in the group of countries at the bottom of the ranking.

The level of perceived corruption in Kyrgyzstan remains high but has improved, falling two points since 2016. The Corruption Perceptions Index, which measures the degree of corruption in the public sector as perceived by business people and country analysts, ranked Kyrgyzstan 126th out of 180 countries in 2019 (compared to 136th in 2016), assigning it a score of 30 (100 is very clean; 0 is highly corrupt (Transparency International, 2019).

2.3 Labour migration – Human capital loss or financial capital gain?

A key phenomenon of Kyrgyzstan's economy and society is large-scale labour migration. The country has had a negative net migration rate of 3.2 migrants/1 000 population between 2015 and 2020 (IOM, 2020). Although accurate data are missing, it is estimated that about 700 000 people (11% of Kyrgyzstan's population) was involved in labour migration in 2018 (NRF A.3.2, 2020). Moreover, remittances account for almost one-third of GDP (28.5% of GDP in 2019)[13], playing a crucial role in the country's economy.

The key push factors for migration are connected to political instability, the high level of corruption and weak economic performance (NRF B.1.3, 2020). According to Vinokurov (2013), the growth in emigration appears to be linked directly to the deterioration in economic indicators. Specifically, a drop in GNP per capita of 1% increases emigration by 0.65–0.77%. In addition, existing research confirms that the desire to emigrate correlates with regional development (Vinokurov, 2013; National Institute for Strategic Studies, 2015). Residents of the country's poorer southern regions are most likely to emigrate. In some areas, such as Batken region, nearly 35% of the working-age population has left or has had experience of working in Russia.

Surprisingly, this socio-economic phenomenon is under-researched in Kyrgyzstan, even though it has a significant impact on the present and future economy of the country, on sociocultural dynamics and on human capital. It is therefore difficult to establish whether positive or negative effects prevail. Even in relation to human capital, the outcomes seem ambiguous.

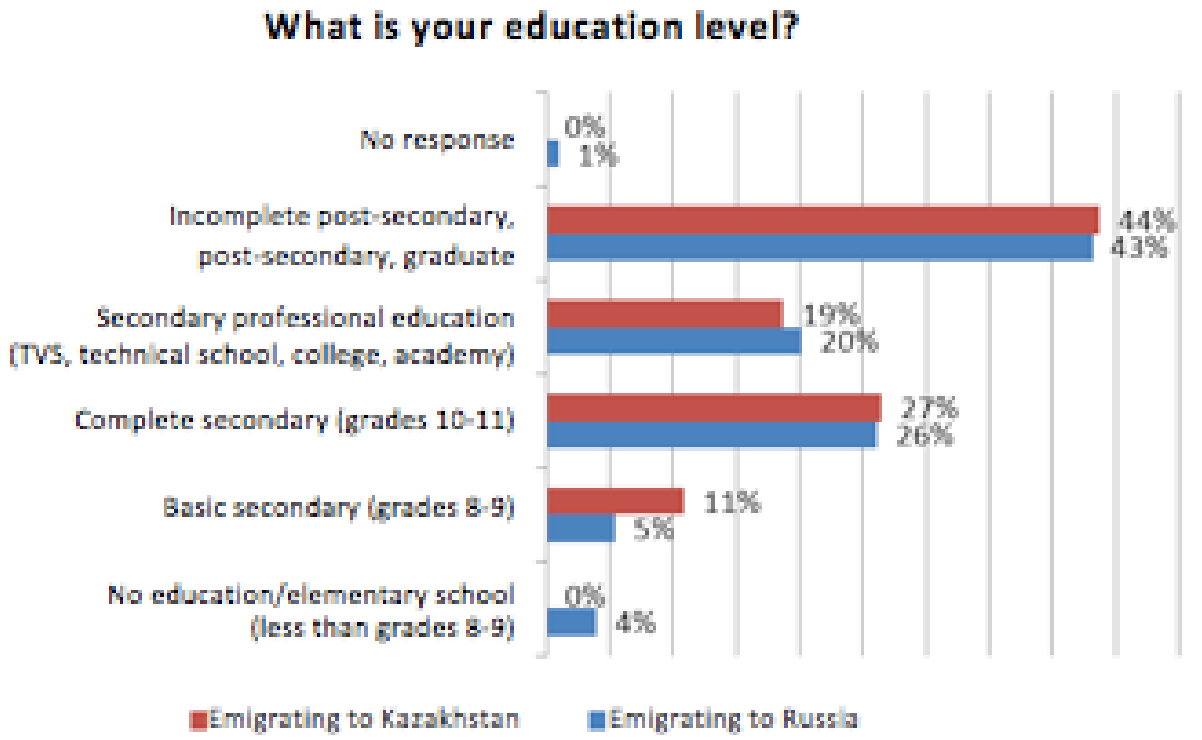
On one hand, a substantial brain drain or skills drain, which can be seen from the number of people working abroad, suggests a negative impact on human capital. The effect is to diminish the size of the qualified workforce and it may ultimately cause a reduction in the country's potential for production and innovation.

The adverse effect of reduced human capital stock in the country is exacerbated if labour migration becomes not merely temporary, but permanent. The effect is even more severe if migration includes people with medium-to-high levels of skills, such as qualified workers, IT specialists, engineers, agronomists, doctors and teachers. Recent data and research on the characteristics of the Kyrgyz migrant population are not available. However, past research suggests that labour migrants have a relatively high level of education compared to the overall education structure of the population, given that the majority have a medium level of education (see Figure 2.3). This suggests that human capital

[13] World Development Indicators, World Bank: https://databank.worldbank.org/source/wold-development-indicators, accessed on 25 August 2020

loss is significant for the Kyrgyz economy and society not only in quantitative but also in qualitative terms.

FIGURE 2.3: EDUCATION LEVEL OF LABOUR MIGRANTS FROM KYRGYZSTAN TO RUSSIA AND KAZAKHSTAN (2013)



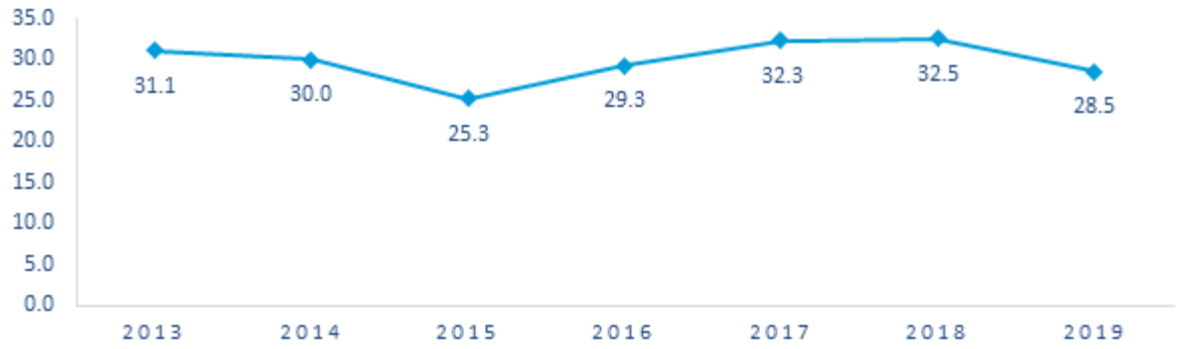
Source: Vinokurov, 2013

The same study analyses the occupational distribution of labour migrants to the two main receiving countries, Russia and Kazakhstan, and finds that most Kyrgyz migrants are employed as unskilled or semi-skilled workers, while only a few hold mid-level, white collar or management positions. Such a discrepancy between the job level and education level of Kyrgyz migrants (i.e. vertical skills mismatch) further reduces the quality of human capital stock in the long term. Moreover, the costs invested by the Kyrgyz state in the education and training of a labour force that is then exported are partly wasted and do not yield an immediate return on human capital.

On the other hand, the positive aspects of labour migration include gains to the country's financial capital stock, particularly an increase in household disposable income. As indicated earlier, Kyrgyzstan is one of the world leaders in remittances (as a % of GDP) sent back by migrant workers. The importance of remittances has risen sharply since 2004 and continues to increase, despite some fluctuations between 2013 and 2015 that were mainly due to a downturn in the oil price and a tougher migration policy before joining the Eurasian Economic Union (see also Figure 2.4).

However, the high degree of dependence on the Russian economy makes labour migration, and in turn the sending country's economy and society, extremely vulnerable to external shocks. In 2020, the amount of remittances is expected to fall because of the decrease in oil prices and the impact of the COVID-19 pandemic.

FIGURE 2.4: PERSONAL REMITTANCES RECEIVED (% OF GDP) (2013–2019)



Source: World Development Indicators, World Bank (https://databank.worldbank.org/source/world-development-indicators, accessed on 25/08/2020)

Research shows that remittances in Kyrgyzstan are mainly spent for consumption purposes and only to a lesser extent on stimulating investment (Vinokurov, 2013). An analysis based on 'Life in Kyrgyzstan' data (Muktarbek et al., 2015) confirms this spending pattern and reveals that households spend money from remittances on weddings more often than on education and healthcare. The same spending pattern on consumption and basic needs applies in all Central Asian countries (Prokhorova, 2017).

An important positive impact of such a spending pattern is poverty reduction. According to the National Institute for Strategic Studies (2015), a 10% increase in the volume of remittances leads to a 1.7% reduction in the proportion of people living in poverty in Kyrgyzstan. On the other hand, remittances are not used to their full potential and tend not to be reinvested in human capital. This may be related to the perceived poor quality of education services and a lack of incentives to invest in education. Thus, remittances produce mainly short-term positive effects and fewer long-term development impacts.

In principle, the return of migrant workers to Kyrgyzstan can have a positive effect on human capital if skills are upgraded abroad and in demand in the homeland. However, too little is known about the share of returnees and their reintegration into the labour market. If the return of migrant workers is involuntary, for example because of job loss, it may give rise to a new round of migration or perpetuate the cycle of poverty and unemployment.

The National Development Strategy 2040 (Government of Kyrgyzstan, 2018) aims to continue the country's emigration policy and its reliance on remittances by expanding the policy to support migrants. There seems to be no alternative plan. The announced measures include the establishment of representation offices in Russian cities and the creation of vocational training and retraining centres for professional personnel with support from Russia (Government of Kyrgyzstan, 2018). The COVID-19 crisis and the deepening of Russia's economic downturn may give reasons to rethink the current policy. Future migration policy should aim at a crisis-resistant strategy that decreases the dependency on remittances and single countries, while paying more attention both to regional development in areas with the highest emigration rate and to effective youth employment policy. A shift to a more investment-oriented model of remittances should be considered in order to raise human capital and productivity, making households more resilient and protected against financial instability. Finally, such a policy will need to address gaps in the existing data and research.

2.4 Labour market and education challenges for human capital development

The scale of informal economy as a barrier to human capital and sustainable development

Employment in the informal sector is high in Kyrgyzstan. Between 2013 and 2018, the share of informal employment increased by 14% to 71% (NRF B.1.1, 2020)[14]. The incidence of informality is well above the world average of around 60% (ILO, 2018) and poses a major challenge not just for decent work and income but for sustainable and inclusive development. The informality is spread across all economic sectors, but is particularly significant in agriculture, manufacturing, construction, and services such as accommodation and food-service activities, transportation and storage, wholesale and retail trade, and the repair of motor vehicles and motorcycles.

In 2018, the biggest share of new jobs was created in the informal sector (93%). In the same year the job destruction rate was 26%, 89% of which came from the informal sector (NRF B.1.1, 2020).

Global and regional estimates by the ILO show a correlation between education and informality. When the level of education increases, the level of informal employment tends to decrease. This phenomenon can be observed in both developing and developed countries (ILO, 2018). According to less recent data from the World Bank (2018a), informal workers in Kyrgyzstan have lower educational attainment and fewer skills than other workers (only 17% have tertiary education compared with 43% of formal workers). Also, they tend to be younger men from poorer households, living in rural areas, and working mainly in construction, trade and agriculture. Similar results were obtained from the Transition from School to Work survey in 2011–2012, which found that graduates with higher or vocational education were more likely to have formal jobs than others with only basic or secondary general education (ETF, 2013). Education, training and skills development are therefore essential factors to make the transition into the formal economy because they can improve the skills and employability of the workforce.

Job creation, job productivity and female labour force participation are low

Other major labour market challenges for human capital development in Kyrgyzstan are related to job creation, job productivity and female labour force participation.

Job creation is limited by labour demand and supply, matching constraints, and a failure to keep pace with rapid population growth. The potential workforce is growing at about 2% per year and it is estimated that roughly 50 000 new entrants join the labour market each year. Formal employment is small (less than one-third), largely urban, and concentrated in only a few sectors, including the public sector. Another concern is job quality, given that many workers have seasonal jobs, their contracts are only temporary or they are not paid on a regular basis (World Bank, 2018a).

Job productivity (output per worker) is considered the lowest in the Europe and Central Asia region. According to the World Bank, it has traditionally been low, and increased informality in the low-

[14] According to the World Bank, 48% of all jobs are in the informal sector. However, this figure is based on a definition of informality that excludes self-employed people (World Bank, 2018a).

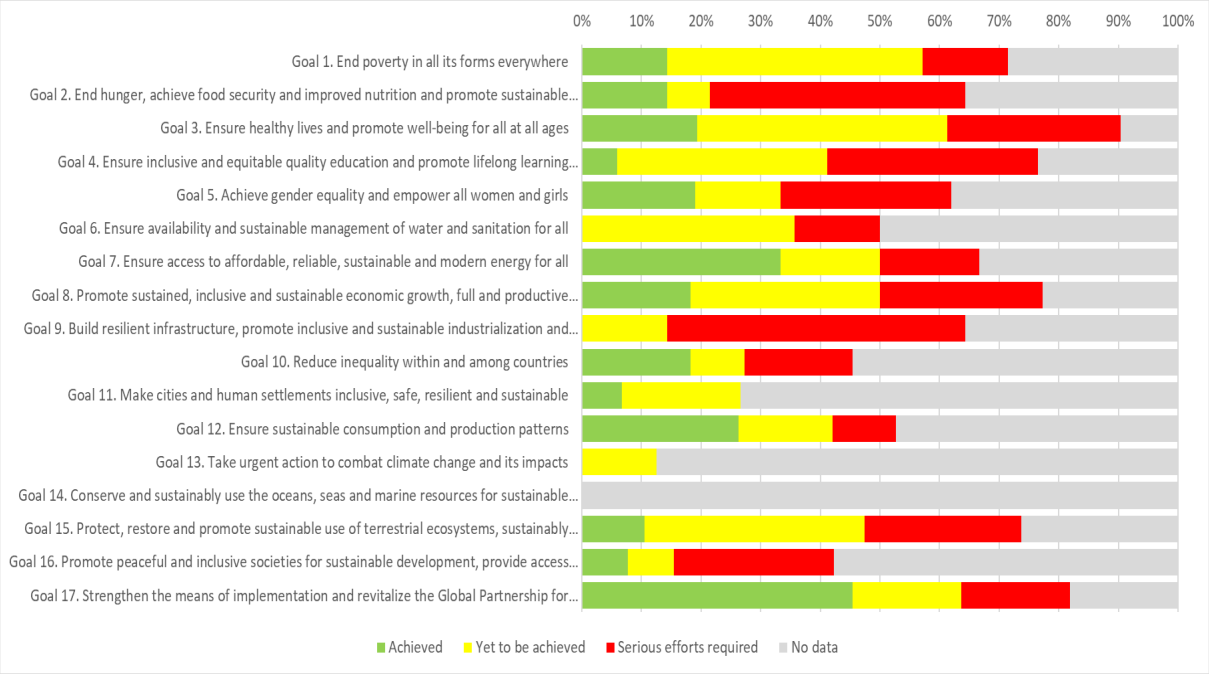
productivity sectors of services and industry have further contributed to the deterioration of national productivity growth.

In all age groups, the employment rates are lower for women than for men, which may indicate barriers for women to enter the labour market, such as childcare, lack of education and skills, social norms, and legal barriers (World Bank, 2018a).

Enhancing lifelong learning for sustainable development

While education can no longer be considered a guarantee for access to formal and more productive employment, it is an important asset. At the global level, education and training have become increasingly important not only for employment, employability and personal development, but also to address the global challenges that all countries face, including those related to climate change, the environment, poverty and inequality, prosperity, and peace.

FIGURE 2.5: MONITORING KYRGYZSTAN'S PROGRESS TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS (2018)



Source: United Nations, 2019a. Each indicator is broken down into one (or more) of four categories based on thresholds: green – target for 2030 achieved; yellow – target for 2030 yet to be achieved, but intermediate target is achieved; red – intermediate target is not achieved; and grey – no indicator available for a target, or judgement is impossible.

As part of the 2030 Sustainable Development Agenda adopted by all United Nations Member States in 2015, Kyrgyzstan has made commitments towards achieving the Sustainable Development Goals (SDGs) and progress is being monitored.

Compared to most of the other 16 SDG targets, Kyrgyzstan has made little progress on SDG 4, the education target (United Nations, 2019). In terms of the share of education indicators, only 6% have

so far been achieved (1 indicator), 35% are yet to be achieved (6 indicators), another 35% of indicators (6) require serious effort, and 24% (4 indicators) have no data (UN, 2019b)[15].

On the other hand, Kyrgyzstan's human capital assets include the high level of education of its employed population and the high access to primary and basic secondary education. However, there is room for improvement in upper secondary education (grades 10–11) as net attendance is only 59% for boys and 56% for girls (UNICEF, 2020). There are also gender, wealth and location disparities (UN, 2019b).

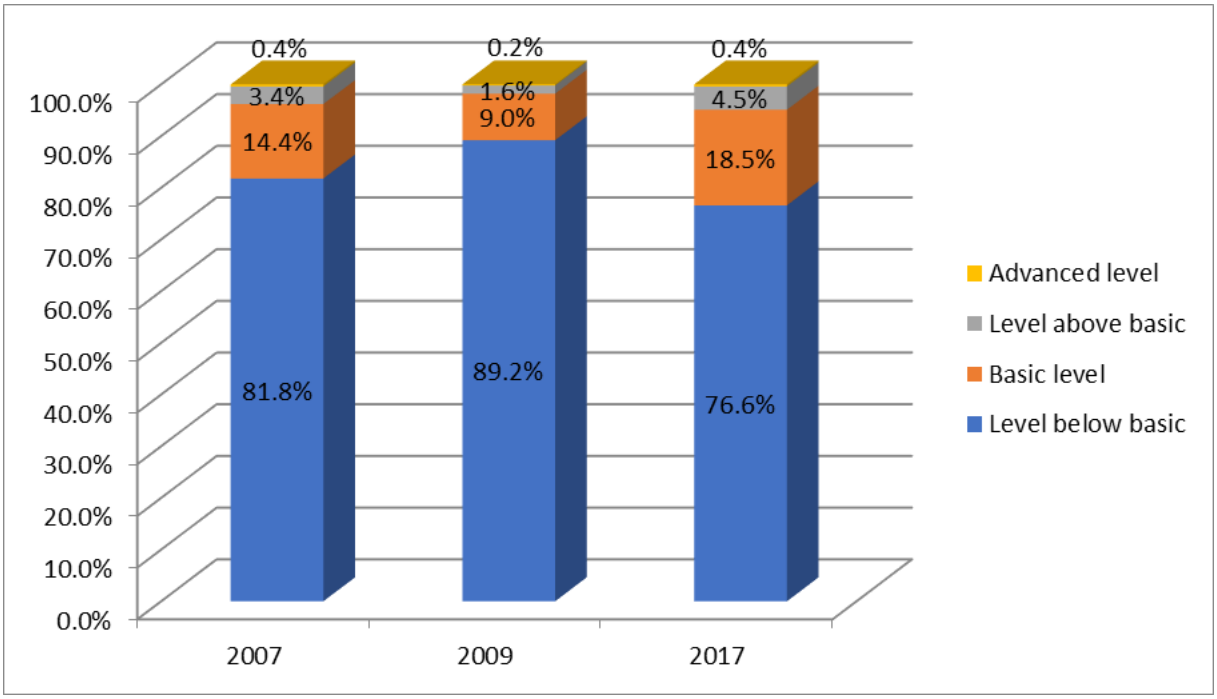
The current gaps in the achievement of the SDG education goals suggest that more attention needs to be paid in the coming years to the quality of early childhood education and vulnerable groups, the elimination of gender disparities in education, and equal access to quality VET and higher education.

Ensuring quality education and skills development

The level of satisfaction with the education received in Kyrgyzstan is low. According to the Youth Development Index, only 45% of young people are satisfied with the quality of their education (UN, 2019b). The limited quality of general education is shown by the results of the National Assessment of Education Progress (NAEP) among students in the 8th grade. The last assessment took place in 2017 and focused on three subjects: mathematics, reading ability and comprehension, and natural sciences (chemistry, physics, biology and physical geography). The assessment recognises four levels of achievement: below basic, basic, above basic, and advanced. While the assessment demonstrated higher achievement levels in 2017 than in previous rounds in 2009 and 2007, it also found that only 35.1% and 23.4% of students reached a basic level or higher in mathematics and natural sciences, respectively, while the equivalent figure for reading ability and comprehension was 48.5%.

[15] In Kyrgyzstan, UNDP has supported the development of a dashboard that combines 'official' international indicators and country indicators from several datasets.

FIGURE 2.6: NATIONAL ASSESSMENT OF EDUCATION PROGRESS (NAEP) – GRADE EIGHT STUDENTS' ACHIEVEMENT IN SCIENCE (2017)



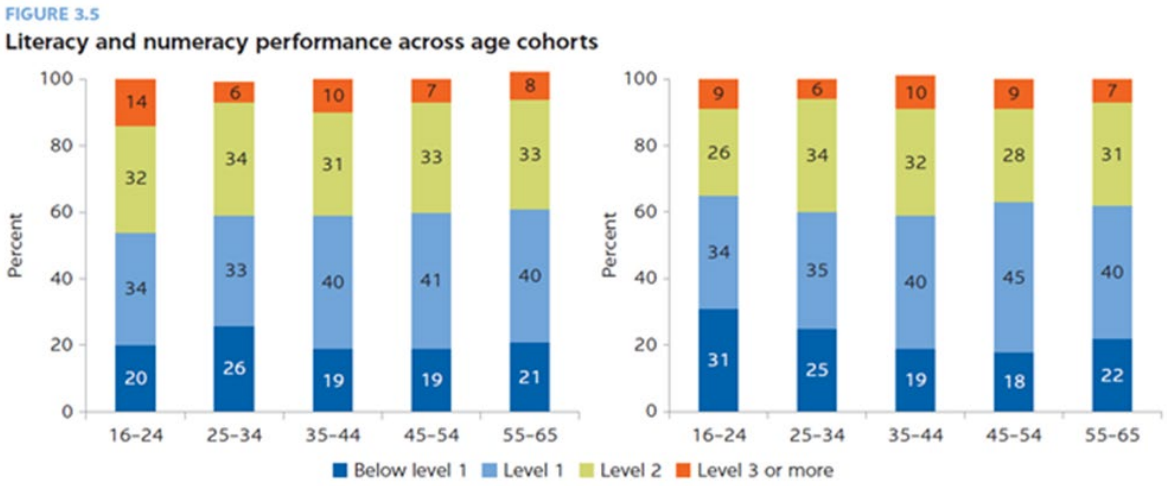
Source: NRF C.1.1, 2020. From: Report on NAEP, CAETM 2017

Unfortunately, more recent internationally comparable data on the quality of general education are not available. Although Kyrgyzstan in 2006 became the first country in Central Asia to take part in PISA (OECD Programme for International Student Assessment), the last assessment took place in 2009. As in 2006, the 2009 assessment revealed poor performance and placed Kyrgyzstan last among all participating countries despite the investment of significant resources and efforts in education by schools, parents and the government (OECD, 2010). However, Kyrgyzstan plans to resume PISA in 2025.

The very first skills assessment of the adult population of Kyrgyzstan, based upon the OECD's PIAAC (Programme for the Assessment of Adult Competencies) methodology, took place in 2019[16]. The focus was on literacy, numeracy and ICT competences. Respondents scored below basic levels in all three areas, with 59% of adults scoring at or below level 1 in literacy and 60% scoring at or below level 1 in numeracy. The assessment also revealed that the performance in literacy and numeracy across age cohorts is not improving steadily among more recently educated adults.

[16] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/262271600915343998/building-the-right-skills-for-human-capital-education-skills-and-productivity-in-the-kyrgyz-republic

FIGURE 2.7: ADULT POPULATION SKILLS ASSESSMENT IN LITERACY AND NUMERACY BY AGE COHORT (2019)



Source: Hou, Acevedo, de Laat, & Larrison. 2020. 'Building the Right Skills for Human Capital: Education, Skills, and Productivity in the Kyrgyz Republic.'

In the sphere of ICT skills, 34% of tested participants demonstrated low proficiency. In this area, however, the youngest age cohort did demonstrate significantly higher skills levels.

An Asian Development Bank (ABD) review of higher education in Kyrgyzstan finds some of the same weaknesses in the general and secondary education systems, which in turn have a significant impact on the performance of the higher education system. Areas of concern are the low quality of the higher education on offer, the lack of focus on student learning outcomes, a weak linkage to labour market requirements, and the low credibility of degrees as a result of academic corruption (ADB, 2015). While acknowledging the large expansion of the higher education sector, including private universities, the same report points to the country's very low research output and its need to develop a research system[17].

Data on adult education and the supply and demand in continuing education and training are extremely scarce. The existing evidence does not provide a comprehensive overview of participation in adult education and training. It would therefore be important to obtain such data, preferably through the use of existing survey tools, in order to take a regular countrywide snapshot of the skills assets and gaps in the adult Kyrgyz population.

In view of these findings, improving the quality of education, enhancing learning outcomes and fostering skills development among adults are expected to remain key priorities for education and training policy in Kyrgyzstan for many years to come.

[17] Regarding publication in international journals, Kyrgyzstan ranked 144th out of 231 territories by the Scopus tool SCImago 22 (ADB, 2015).

3. ASSESSMENT OF KEY ISSUES AND POLICY RESPONSES

This chapter focuses on two human capital issues and analyses them in greater detail. The issues have been selected because they represent areas in which VET from a lifelong learning perspective can make a significant difference. The analysis that follows should be viewed in relation to the background described in Chapters 1 and 2.

The selected human capital issues are: (i) the requirement of economic and digital transformation call for more responsive VET and stronger lifelong learning; and (ii) the need for an inclusive, integrated approach to skills development in order to tackle poverty and regional disparities.

3.1 Economic and digital transformation calls for more responsive VET and stronger lifelong learning

The challenges Kyrgyzstan faces in the economic, social and labour-market areas call for multiple, coordinated responses. The government has therefore set ambitious plans for the medium term and adopted a vision for the next two decades. It is well aware that human capital is a key factor to achieve its policy goals.

A scenario analysis for the country on human capital, economy and governance (UN, 2018), based on key policy priorities and development plans, recommends that human capital investments 'should be prioritised urgently to reduce future societal costs and maximise benefits in terms of quality of life, economic productivity, peace and stability'.

The ETF suggests that the strengthening and further development of VET must become an immediate policy priority as part of the country's effort to raise its human capital. One target of skills development should be the young population that will enter the labour market in the next few years. At the same time, there is also a need to pay more attention to the skills development of the current working population in Kyrgyzstan in order to enable it to cope with the ongoing economic and digital transformation.

The trend towards a more diversified, digitalised economy

To develop human capital, it is necessary to consider both the government's strategies and the actual needs, trends and changes in the economy and labour market. Several reports highlight the need to create a new growth-oriented development model, based on a second round of reforms, in order to make the transition to a dynamic economy oriented to the global market (Government of Kyrgyzstan, 2018, ADB, 2019). This needs to go along with a diversification of the country's economy and a strengthening of its export base and its digitalisation. Yet these developments will only be possible with a workforce that has the corresponding skills, when required. The economy's key features and developments are set out below:

- Priority sectors of the economy for future development have been defined in the National Strategy 2018–2040. These include the country's industrial potential, especially the agro-industrial complex, light industry clusters and the sustainable development of tourism. Kyrgyzstan wants to become 'the leading supplier of high-quality environmentally friendly, organic products and to

create medium and large processing companies in the agro-industrial complex, including logistics centres'.

- Kyrgyzstan has the potential to raise productivity in future areas of digitalisation, such as trade in ICT goods and services, e-commerce, the financial sector and digital agriculture (Eurasian Development Bank, 2019). A special National Programme for Digital Transformation ('Taza Koom') aims to create a high-tech society at the level of citizens, businesses and the state (Government of Kyrgyzstan, 2018).
- Foreign direct investment (FDI) is expected to play a pivotal role in the future, especially in export-oriented production. However, FDI is only a small share of gross domestic fixed capital formation and it fell to 10% in 2016 from 50% in 2011 (ADB, 2019).

  The main foreign investor is now China, which has the lion's share of almost 50% of FDI, and nearly all FDI goes to mineral resources, the metal industry, and building and construction materials (OECD, 2019c).

- A structural shift has occurred in the last two decades. Kyrgyzstan has gone from an economy based on agriculture to one based on services, which currently represent the largest and fastest growing sector. In agriculture the country has evolved from an exporter to a net importer, but it does have emerging niche export sectors (ADB, 2019) and productivity would be higher with the use of more advanced technology. For example, Kyrgyzstan has an export potential for horticultural products that is underutilised at present (World Bank, 2019). In terms of employment, agriculture has recently become a growing sector again, albeit in the informal segment (NRF B.1.1, 2020).
- Trade plays an important role in the economy of Kyrgyzstan. It promotes economic growth and is expected to become even more significant. In particular, export-oriented growth not only generates employment, but also creates conditions to increase the qualifications of employees by attracting new technologies and innovation (UNDP, 2016). According to the ADB, Kyrgyzstan's trade deficit has continued to widen (from 5% of GDP in 2003 to 27% in 2017). Trade activity decreased significantly between 2013 and 2017, both in terms of imports and exports (OECD, 2019c).
- Tourism, which contributes 5% of GDP, is one of the sectors that have a potential to generate more income and drive growth in the services sector, while also boosting other parts of the local and national economy through the ripple effect. In particular, rural areas with their mountainous landscape, cultural heritage, and diverse flora and fauna could benefit from attracting more tourists, facilitated by the visa-free regime introduced a few years ago by the government. A recent feasibility study (Mascontour, 2019) on rural tourism in Jalal-Abad region identified a major potential to provide jobs for young people, first-time jobseekers, minority groups, retired people, and working mothers in search of part-time employment. The study concludes that a considerable human capital gap exists in terms of skilled tourism staff and an adequate offering of education and training in the region.
- Kyrgyzstan has potential for green investment and is laying the groundwork to move forward on energy-efficient local transport. With support from the OECD, a green public transport programme and costing methodologies for green public investment programmes have been explored (OECD, 2019b)[18].

[18] In Kyrgyzstan, the transport sector is responsible for 28% of greenhouse gas emissions and, in cities like Bishkek, it is responsible for 75% of air pollutants. From 2011 to 2015, Bishkek experienced a 20% increase in the incidence of respiratory diseases. Statistics from the World Health Organisation (WHO) show that diseases of

- The poor quality of the country's physical infrastructure (OECD, 2019c) suggests that the sector will grow, as does the country's national strategy to become a potential transit hub for goods and services between East and West. The country's plans for large-scale infrastructure projects (Government of Kyrgyzstan, 2018b) are dominated by energy and transport, industry and mining, water, and the environment. This also provides new opportunities to invest in sustainable infrastructure for low-carbon development and amend the 'Green Economy Concept' of 2018, since the existing strategies do not take environmental considerations sufficiently into account[19].

Given the ongoing shifts in the country's economic sectors, the government's definition of priority development sectors, and other emerging business sectors, branches or niches with future potential, the demand for human capital development is growing and becoming more diversified. In particular, the VET sector, higher education and lifelong learning will have to be better prepared and respond more quickly in order to contribute significantly to the country's growth and the employment and employability of its population.

Skills demand and supply are changing

With a view to its human capital supply, Kyrgyzstan portrays itself to the outside world as a country with 'skilled and cheap labour' and 'youth comprising 51% of supply in the labour market' (Investment Portal Kyrgyz Republic, 2019). The population's high literacy rate and high level of education are emphasised as additional assets.

It is, however, uncertain whether these assets are sustainable or translate into the skills necessary for the future development of the country.

High educational attainment but low quality of skills

While the educational attainment level has traditionally been high and has even slightly increased since 2009 with roughly 95% of the population having medium-to-high qualifications (ETF, 2017), it is questionable whether this advantage translates into quality skills that are sufficiently updated.

It is well known from the literature that human capital research emphasises the importance of cognitive skills over school attainment. According to Hanushek (2013), 'development policy has inappropriately emphasised school attainment as opposed to educational achievement, or cognitive skills'. As a result, developing countries have not improved in quality terms even as they improve in educational attainment. Without improving education quality, therefore, it will be difficult to improve economic performance in the long run.

Clear evidence of significant quality gaps in skills have become visible in the test results of a number of assessments carried out at national and international level, such as the OECD Programme for International Student Assessment (PISA) in 2009, the latest National Assessment of Education Progress (NAEP) in 2017, and the 2019 assessment of skills among the adult population inspired by the PIAAC (Programme for the International Assessment of Adult Competencies). All these assessments demonstrate a poor performance among students and adults (see Chapter 2.4).

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the circulatory system are the main cause of death in Kyrgyzstan, accounting for 50% of early deaths in 2018 (OECD, 2019a).

[19] Kyrgyzstan was the last country in Central Asia to ratify the Paris Agreement in late 2019 and it has not yet adopted a long-term low-emission development strategy.

The outcomes of the 2009 PISA, 2017 NAEP and 2019 PIAAC-inspired assessments demonstrate that most students who complete general education have poor reading, mathematics, science and ICT foundational knowledge. This unfavourable starting position is exacerbated for students that progress towards VET, because the development of high-quality skills on which VET should focus depends largely on opportunities for exposure to real working environments and the quality of infrastructure in the workshops and labs provided by schools and training institutions. According to the NRF, training equipment remains a major challenge for all vocational training institutions in spite of some investment, including from donors. Although most of the equipment (86%) is still in good working order, it is often obsolete and outdated in the today's marketplace (NRF C.1.1, 2020).

Another quality challenge is the capacity of VET providers to adjust their initial or continuing VET offering to the demands of the labour market. The aforementioned feasibility study on rural tourism revealed considerable human capital gaps among staff working in tourism in the analysed region (Jalal-Abad). The study also found that neither the VET institutions nor the local universities in the region offer adequate, contemporary education in tourism. The training deficits cover a wide range of skills (from innovative, local food preparation to visitor services and English language skills) and pose an obstacle for the development of the region's tourism sector.

Many of the tourism staff received their last training more than 10 years ago, and the training on offer in the past was often not sufficiently practice-oriented or it lacked process-oriented support to put theoretical knowledge into practice. Traditional classroom training prevails, while new training approaches that involve practitioners in design and delivery and draw on new methods, such as blended learning, digital tools and materials, and videos, are rare (Mascontour, 2019).

Improving skills supply to speed up reaction time and tackle distribution problems

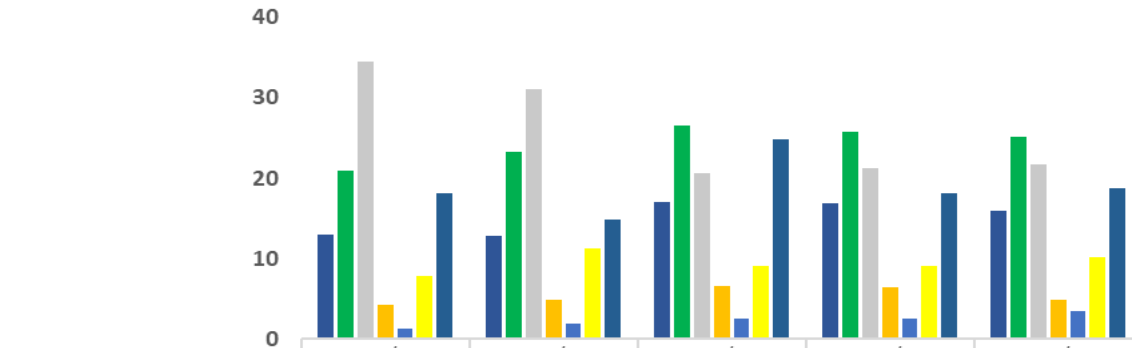
While the national economy's overall skills supply from VET, including for migration abroad, has remained relatively stable and increased slightly over the last 10 years, the system appears to have a slow reaction time when it comes to supplying adequate skills to meet the changing demands of the labour market.

The student population in primary VET (close to 32 000, 31% female) increased by 8% between 2013 and 2017, mainly owing to an enhanced offering of short-term courses, while the system of secondary VET (around 90 000 students, 57% female) started to grow again in 2016.

As the number of graduates from primary vocational education shows, however, thematic training areas have experienced little change in the past five years (from 2013 to 2017). Most training focuses on construction and the food industry (40% of graduates) or on transport and light industry (30%), while ICT accounts for only 5% of graduates since 2015 and the trend is downward. Limited numbers of programmes are offered in industries such as energy, metalworking, mining and tourism (NRF A.2.3, 2020).

The Government Resolution 'On approval of the Occupation List of primary vocational education in the Kyrgyz Republic', which is the document that governs primary VET, dates from 2003 and was not amended until 2018 (NRF A.2.1, 2020).

FIGURE 3.1: SECONDARY VOCATIONAL EDUCATION STUDENTS BY SPECIALITY GROUPS (FROM 2013–2014 TO 2017–2018, IN %)



	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Education	13	12.9	17	16.9	16
Health care	21	23.2	26.6	25.7	25.1
Economy and governance	34.5	31	20.7	21.2	21.7
ICT and electronics	4.2	4.9	6.6	6.4	4.9
Agriculture	1.3	1.9	2.6	2.6	3.5
Social specialties	7.9	11.2	9.1	9.1	10.1
Other	18.1	14.9	24.8	18.1	18.7

Source: NRF A.2.3, 2020. From: National Statistical Committee, Education and Science in the Kyrgyz Republic 2018

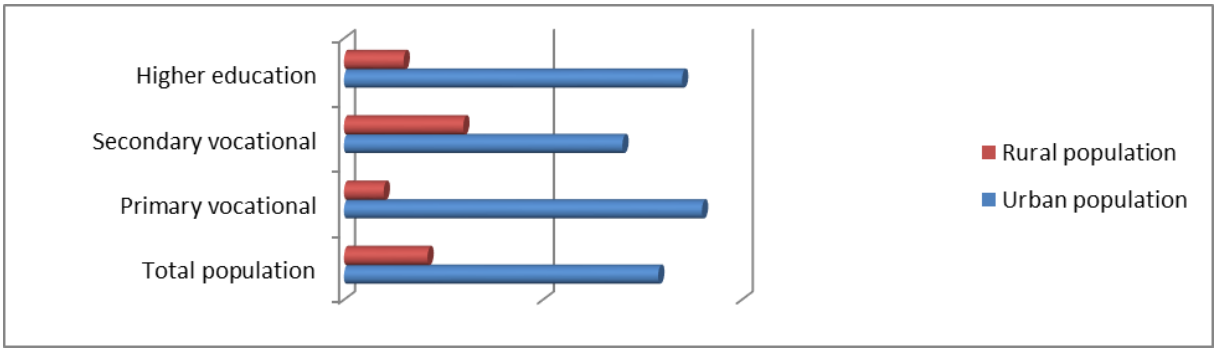
In secondary VET (see Figure 3.1 above), health care and economy profiles make up nearly 50% of all VET programmes, whereas ICT and electronics have recently fallen below 5% of total enrolment. The numbers of higher education graduates in computer engineering and technical science have fallen almost fourfold between 2013–2014 and 2018–2019.

In the same period, the number of specialists in enterprises and organisations dealing with computers and information and communication technologies has increased by 1.7 times.

Most of the individuals employed in the ICT sector in 2018 had a secondary vocational education background, followed by higher education and primary VET. Of concern is the disparity between the urban and rural populations. The latter represent a much lower share of individuals employed in the ICT sector and mainly have a secondary vocational education (NRF B.1.4, 2020).

The decline in enrolment and graduation in ICT fields is particularly worrying and stands in contrast to the government's stated policy to create a competitive digital economy. To meet this goal, there is a need for highly skilled university graduates and VET graduates with middle-level ICT qualifications not only for the ICT sector itself but for nearly every sector.

FIGURE 3.2: LEVEL OF EDUCATION OF THE EMPLOYED POPULATION AGED 15 YEARS AND OLDER IN THE INFORMATION AND COMMUNICATIONS SECTOR IN 2018 (IN %)



Source: NRF B.1.4, 2020. From: Assessment of the level of digital development in the Kyrgyz Republic, Institute for Statistical Research and Professional Development, NSC, 2019

The objective to implement large-scale information technology in production and management and apply innovative, environmentally friendly technologies will be impossible to achieve if the domestic skills supply underperforms. It will also be impossible to offset the lack of adequate skills in these areas through labour migration from abroad because wage levels are low.

However, skills mismatch in future-oriented fields is not the only challenge. A youth labour market analysis by USAID and the University of Central Asia in Kyrgyzstan (2019) points to a skills mismatch in other fields too as a consequence of trends in higher education. While a significant number of young people graduate from higher education with law and/or economics degrees, there are not enough employment opportunities in these fields. The study shows that labour market needs are instead more oriented to the applied skills delivered by VET schools and colleges, for example in traditional occupations such as electrician, automotive electrician, welder, cooking, sewing, etc.

According to respondents to a questionnaire- and interview-based field study, current and future employment opportunities are closely connected to the professional technical skills of workers. In small businesses, workers with higher education or college degrees may receive salaries that are similar to the salaries earned by those with a lower level of education (University of Central Asia, 2019). A 2013 ETF survey on the transition from school to work found that wages are often even lower for those with a higher level of education. Young people who have invested significantly in education tend to work in the formal and public sector, whereas those who do not have higher education or secondary vocational education usually enter the informal labour market.

A skills system with insufficient capacity to provide people with up-to-date knowledge and competences may become a hindering factor for a country's development and growth. A study on the export potential of agricultural products in horticulture identifies knowledge and skills as one of the factors that explains why the potential cannot be fully used. The range of recommendations for Kyrgyzstan to improve skills and knowledge includes capacity building for farmers that focuses on production and harvest methods, storage techniques, the use of new technologies, standards and financial management, stronger food safety training programmes and education for exporters on various market issues (World Bank, 2020).

The sector that was thrust into the worldwide spotlight during the COVID-19 crisis, namely the healthcare sector, seems to suffer from high-end skills shortages in Kyrgyzstan. A UN report states that the recruitment and staffing of professional medical personnel has reached critical levels in recent

years. Primary healthcare staffing of family doctors stands at 53%, while 79% of physicians are of pre-retirement and retirement age (UN, 2019b).

From the analysis above, it can be concluded that other economic sectors also have demand for a skills supply that is highly responsive to their needs and meets the quality requirements of their respective products and services. Human capital gaps or mismatch can become a major obstacle not only for the development of individual businesses but also for Kyrgyzstan's entire new development model, which includes a green development path for its economy.

Gap in digital skills and life skills?

A country diagnostic study by the ADB (2019b) concludes that the Kyrgyz education system lags in equipping graduates with the skills demanded by the knowledge and innovation economy. The study highlights that school curricula insufficiently address ICT and life skills. The 2019 PIAAC-inspired adult skills assessment (Hou, Acevedo, de Laat, & Larrison, 2020) comes to the same conclusion.

The NRF (2020) states that digital literacy is not widespread in the country. Also, interviews with business representatives and workers as part of the previously mentioned labour market assessment by the University of Central Asia and USAID (2019) confirm a general perception that future employment will be connected to IT. However, only a few of the respondents understood how IT might be linked to current employment opportunities.

The World Bank's Digital Adoption Index (see Table 3.1 below) finds that Kyrgyzstan lags behind an entire group of countries in the region on the adoption and use of digital technologies, and is ahead only of Tajikistan (Eurasian Development Bank, 2019). On the indicator 'Digital skills among the active population', Kyrgyzstan scores lowest among the compared countries (EDB, 2019).

TABLE 3.1: DIGITAL ADOPTION INDEX IN 2014 AND 2016[20]

	Digital Adoption Index		DAI Business Sub-index		DAI People Sub-index		DAI Govenement Sub-index	
	2016	2014	2016	2014	2016	2014	2016	2014
Armenia	0.62 ↑	0.61	0.71 ↑	0.68	0.48 ↑	0.41	0.67 ↓	0.73
Belarus	0.59 ↑	0.53	0.74 ↑	0.70	0.65 ↑	0.56	0.39 ↑	0.33
Kazakhstan	0.67 ↑	0.63	0.60 ↑	0.54	0.57 ↑	0.53	0.84 ↑	0.83
Kyrgyzstan	0.50 ↑	0.43	0.61 ↑	0.49	0.35 ↑	0.31	0.54 ↑	0.49
Russia	0.74 ↑	0.69	0.71 ↑	0.65	0.70 ↑	0.60	0.82 ↑	0.82
Tajikistan	0.32 ↑	0.29	0.42 ↑	0.20	0.38 ↑	0.28	0.24 ↓	0.32

Source: Prepared by the EDB, using the World Bank's Digital Adoption Index data. Available at: https://www.worldbank.org/en/publication/wdr2016/Digital-Adoption-Index

[20] The Digital Adoption Index (DAI) is the World Bank's international index on the level of adoption and use of digital technology across three key agents of the economy: people, government and business. The DAI, which is used in 180 countries, employs three sub-indexes to calculate the overall statistical average DAI. Each sub-index covers technologies necessary for the respective agent to promote development in the digital era. The specific sub-indexes are: increasing productivity and accelerating broad-based growth for business; expanding opportunities and improving welfare for people; and increasing the efficiency of service delivery for government (EDB, 2019).

In 2017, only 38% of the population in Kyrgyzstan had access to the internet (Eurasian Development Bank, 2019). In addition, the digital development process faces several other shortcomings, among them the level of digital literacy among the rural population, citizens' mistrust and unwillingness to use electronic services, a lack of innovative educational programmes for digital transformation, the weak capacity of government officials, and a lack of personnel with the necessary qualifications (NRF B.1.4, 2020).

The topics of digital skills and life skills (or key competences) among students and the adult population, which are currently under-researched in the country, have nevertheless become a matter of concern. Based on international trends, these skills are most likely to play a key role in the future stock of human capital because of their transversal function across all sectors of the economy and spheres of society.

The COVID-19 pandemic has further triggered the development of digital and online learning in education and the production of video classes for general education in Kyrgyzstan (ETF, 2020).

Adult learning – a blind spot and a grey area?

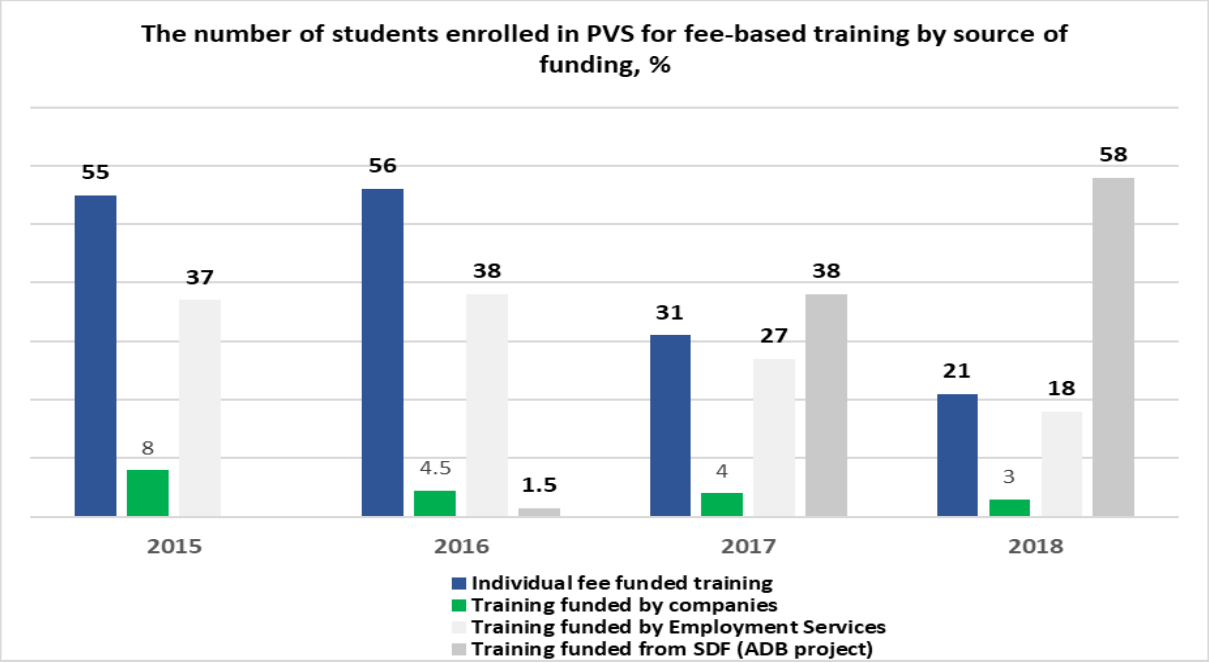
Little information is available about lifelong learning in Kyrgyzstan, particularly adult learning. The country appears to lack comprehensive data, surveys and monitoring of adult learning, including the number and profile of participants, the public and private investment in training, the type of training, training occupations, and categories of training providers (including private ones). The Education Development Strategy 2012–2020 has paid some attention to formal adult education but less to non-formal adult learning (which the strategy calls 'informal education'). Few targets were set in terms of the number of schools and universities that provide continuing professional education services or the number of licences granted to organise skills development courses and training (Government of the Kyrgyz Republic, 2012).

The available data on vocational training of the unemployed show that only around 10% of people (7 300) with official unemployed status received vocational training in 2018. This is less than half the share of people who get involved in paid public works as part of the country's active labour market measures (NRF B.1.6, 2020). At the same time, around 1 000 training providers throughout the country already had a state licence in 2012 to provide informal education programmes for adults, and most of the providers focused on training the unemployed, according to information from the Education Development Strategy.

Despite the abundance of training providers focusing on informal programmes, the largest share of training for the unemployed funded by employment services is provided by VET schools that also offer continuing vocational training to adults. Further to the mandate to provide vocational education to young people, primary VET also has a remit to offer skills upgrading and retraining to skilled workers. Similarly, secondary vocational education has the function of training and retraining mid-level specialists. No consolidated data are available on the secondary VET provision of these types of upgrade training.

The share of students enrolled in fee-based training at primary VET schools made up, on average, 16% of total enrolment in the period 2013–2017, amounting to only 5 000 participants (less than 0.15% of the working-age population). However, participation has increased significantly since 2017 because of a donor-funded project by the ADB and the related establishment of a Skills Development Fund (NRF A.2.1, B.1.6, 2020).

FIGURE 3.2: NUMBER OF STUDENTS ENROLLED IN FEE-BASED TRAINING IN PRIMARY VOCATIONAL EDUCATION, BY SOURCE OF FUNDING (2015–2018, IN %)



Source: NRF A.2.1, 2020. From: Administrative data of the Agency for Primary Vocational Education

Prior to the ADB project, more than half of students participating in fee-based training did so by paying an individual fee, while more than one-third had their training funded by employment services. Since 2017, however, a structural shift has occurred and most participants have started to receive funding through the Skills Development Fund.

The demand for skills development must be huge among the adult population. This is not only a consequence of the country's new economic trends and ambitious policy goals for economic development. Currently, a significant share of the economically active population has no VET qualifications (about 1.5 million) and 120 000 people do not have a basic general education. A validation system to recognise non-formal education is now being piloted in primary VET and is intended to further stimulate demand for vocational training among adults (NRF A.3.4, 2020).

Policy responses

It should be acknowledged that Kyrgyzstan has made efforts to develop the country's human capital and has achieved visible progress in the past decade, especially with regard to access to compulsory education and, to certain extent, pre-school education. However, enrolment in pre-school education remains low.

In addition, the legal framework has improved in several areas. For example, the 2019 amendment to the Education Law introduced the right of citizens to free secondary education at state and municipal institutions. Also, previous amendments addressed the concepts of a 'national qualifications framework' and 'professional standards', as well as licencing and accreditation and the social protection of students (NRF A.2.1, 2020). In September 2020, the National Qualifications System, including a National Qualification Framework, was adopted. In addition, the country passed a law on pre-school education and a regulation on dropouts and absenteeism (UN, 2019b).

Growing investment in education

Public investment in education is relatively high in Kyrgyzstan. Since 2015, it has climbed to 7% of GDP per year and higher. The growth dynamic in recent years has also affected vocational education, since the bulk of education expenditure (57%) goes to secondary education.

Compared with 2013, spending on education from the state budget increased by 1.6 times in 2017 and the share of education investment in the national budget fluctuated between 21% and 24% over the same period (NRF A.2.3, 2020).

TABLE 3.2: FINANCING OF THE EDUCATION SYSTEM FROM THE STATE BUDGET (2013–2017)

	2013	2014	2015	2016	2017
National budget expenditure on education (in KGS millions)	**24 089.7**	**25 915.4**	**29 995.0**	**36 299.3**	**37 387.9**
as % of GDP	6.9	6.5	7.0	7,6	7.2
as % of total national budget	23.1	21.4	22.3	24.0	22.5
on higher education	3 078.1	3 412.3	3 854.2	4 395.4	4 802.7
on secondary education, including primary and secondary vocational education	14 852.1	15 102.6	16 997.2	20 233.2	20 983.4

Source: NRF A.2.3, 2020. Education and Science in the Kyrgyz Republic, 2013–2017: Collection of Statistics, 2018

The relatively high share of expenditure on education in relation to the low outcomes of student achievements, as measured by the PISA and NAEP assessments, suggests an issue with spending efficiency that should be further explored.

Policy of digital transformation in education

Kyrgyzstan has a vision to become a digital hub on the Great Silk Road by 2040. The country envisages the creation of digital infrastructure in the form of a network of data processing centres and ICT services whose reach will extend across the entire region. This will make it possible to connect the information and communication spaces of Central Asia, the EAEU, the Middle East, China and Europe. Kyrgyz citizens will be able to work around the world without leaving their country (Government of Kyrgyzstan, 2018).

Given the human capital needed to support such an ambitious goal, the National Strategy 2018–2040 plans to establish a system for training highly qualified specialists. In 2019, a roadmap for the implementation of the digital development concept 'Digital Kyrgyzstan 2019–2023' was approved. The roadmap envisages a programme for the digital education development of the country in the period 2019–2022, which includes a modern education management system, the establishment of a National Electronic Library, electronic textbooks, and distance learning for higher professional education (NRF B.1.4, 2020). Although the roadmap refers to the need to support digital skills for all citizens, however, the education and training measures focus to a great extent on the higher education segment. A clear lifelong learning perspective that encompasses all levels of education remains to be developed.

Now that the Education Development Strategy 2012–2020 is about to expire, the Ministry of Education and Science has started to prepare the strategy for the next phase up to 2030. Education for sustainable development, equity of access, and quality of education will be the main goals, while cross-cutting thematic areas have also been identified for all levels of education. The digitalisation of education, both in terms of digital skills and the creation of digital learning environments, will be one of the top cross-cutting priorities.

The digitalisation of education has received an unexpected boost since March 2020 and the outbreak of the COVID-19 crisis. Owing to the lockdown and forced closures, all education and training institutions had to switch to distance and online learning within a few days. Yet in a very short period of time, the Ministry of Education and Science managed to activate online education portals for general and secondary education, embark on the preparation of filmed lessons for broadcast on TV, reach agreement with major telecommunication companies to support internet access for students and teachers, and support teacher training on ICT.

While providing support for general and secondary education was understandably a priority, primary and secondary VET were left to fend for themselves to some extent (ETF, 2020).

In its efforts to achieve the digitalisation of education, the country receives support from a range of donors and international organisations, including the EU, ADB, World Bank and UN organisations.

Kyrgyzstan will need coordination, synergies and focused donor support in this area in order to achieve its goals, given the difficult economic context resulting from the impact of COVID-19 on the country's and the global economy. While digital technologies are a formidable tool to enable remote learning and collaboration, attention is required to ensure that a shift to remote learning does not exacerbate inequalities, priority is given to human solutions, and educators, learners and their relationships are put at the core of reconstructing education after the disruptions of the coronavirus pandemic (International Commission on the Futures of Education, 2020).

Approaches to better identify the labour market's demand for skills

In the context of Kyrgyzstan's large share of informal economy and high number of small businesses, it is difficult to identify the future demand for human resources and skills. Many employers have concerns about the sustainability of their business and often do not know what will happen in the short term of one to three years. A focus group discussion on the 'Economic situation and the state of the labour market' (Bishkek, June 2019), which took place as part of the ETF Torino Process, reached the pessimistic conclusion that forecasting skills needs, even in the short term, is nearly impossible as long as the economy is not stable enough and scientifically sound strategies are not developed (NRF, 2020).

Other limiting factors are capacity problems in the respective ministries and a lack of information or follow-up to initiatives. While ten pilot employment services were expected to conduct annual labour market studies and dialogue platforms, no information about the studies was available on the website of the labour market information system (http://www.zanyatost.kg/) by the end of 2019. Currently, businesses and VET schools define skills demand independently. The Ministries of Education and Labour use a methodology set by Government Decree in 2012 to forecast the need for labour resources, while the Ministry of Economy developed a 'Methodological basis for forecasting the needs of the economic sectors in labour resources' in 2016 (NRF B.1.7, 2020).

In the last decade, various tools have been developed, tested or implemented. They include labour market studies (by the ILO and GIZ), a tracer study (by the ETF), a forecasting method based on computational analysis, and an expert assessment method based on direct employer surveys. Forecasts by line ministries are taken as the basis for defining the future demand for specialities and occupations (NRF B.1.7, 2020).

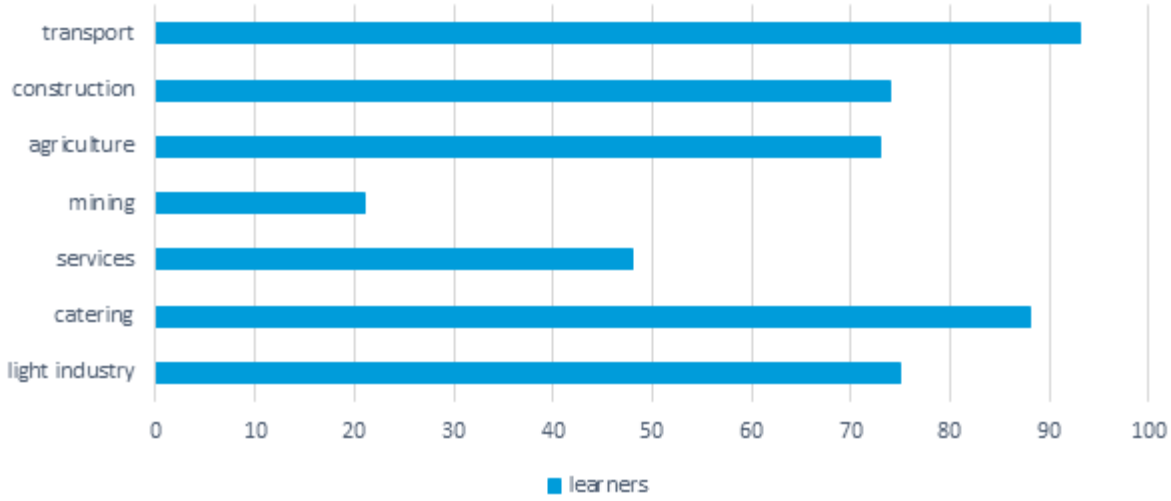
Despite these various initiatives, however, it is not clear whether or how the results are used in practice in the planning of education and training. Moreover, information about the results seems to be limited or not accessible to the people who most need it. A lack of cooperation between institutions, bureaucratic issues and capacity problems appear to be the reasons for the limited success to date. A systematic approach implemented at a large scale and on a regular basis is lacking, as is stronger cooperation among donors on this crucial topic.

Measures to improve the quality and labour market relevance of education and training

To tackle shortcomings in the quality and relevance of education and training, the government has undertaken various initiatives, most of them supported by donor funding from the EU, GIZ, ADB, ILO and other UN agencies. Competency-based training, work-based learning and modular training are viewed as viable approaches and have been successfully piloted. However, implementation challenges remain and a decision on systemic roll-out has not yet been taken. The results of competency-based curriculum testing carried out by the ADB in primary VET schools in 2017–2018 showed that, on average, 75% of students participating in an independent assessment confirmed their competences in full. Student learning outcomes varied by field of training and were highest in transport and catering and lowest in mining and services (see Figure 3.3 below).

In recent years, more attention has been paid to training young people in the workplace. These efforts include the piloting of dual training since 2017 at the initiative of the Agency for Primary Vocational Education. The agency promotes apprenticeship training in a few occupations, such as cook, hairdresser, seamstress, postal worker, call centre operator and ICT specialist. Depending on the qualification, the time dedicated to practical training has been increased from 60% to 80% (NRF D.1.3, 2020) with training taking place to a great extent in companies. With the support of the ADB, secondary VET has also undertaken its first experiences with dual training in 2020.

FIGURE 3.3: EVALUATION OF STUDENT LEARNING OUTCOMES FROM COMPETENCY-BASED TRAINING (ADB PROJECT 2017–2018) (IN %)



Source: NRF D.1.3, 2020. From ADB Report on the results of competency-based curriculum testing

Policy attention is being paid to upgrading school infrastructure and equipping educational institutions with computers[21]. Almost 80% of primary VET and 30% of secondary VET schools have at least partially improved their infrastructure, while two-thirds of educational institutions seem satisfied overall with their infrastructure. The provision of computers in VET schools has improved significantly since 2013, reaching a ratio of 15 students per computer in 2017. However, the licencing standard (12 students per computer) has not yet been reached and internet access remains an issue in rural areas. This particularly affects VET schools, roughly half of which are located in rural and remote areas. Also, a standard for assessing VET provider infrastructure is lacking. Therefore, the degree of satisfaction may depend on a variety of factors (NRF D.1.2, 2020). Feedback from employers during the Torino Process focus groups, which have taken place on a biennial basis since 2010, consistently points to poor VET provider infrastructure as an important reason for poor student preparation in practical skills.

New policies have been introduced to improve the quality of the teaching workforce. A teacher qualification framework was developed in 2016. The framework outlines three qualification levels for primary and secondary VET teachers and includes an occupational standard for each qualification level. An assessment of teacher competences (combining self-assessment and evidence-based assessment) has been piloted and about 1 900 teachers (17% of the workforce) in 60 VET institutions have undergone the assessment. Results show that more than half of teachers have training needs in all of the assessed competence areas, such as teaching and training, evaluation of learning outcomes, social partnership, VET regulations and key competences (NRF D.2.4, 2020).

Some teacher training has started in these areas, but it is not clear whether the assessment and needs analysis approach will remain at the pilot level or become sustainable. In-service training has been severely underfunded for many years (Torino Process 2012, 2014, 2016). Moreover, serious

[21] In 2017–2018, the lion's share of new equipment for schools was funded by donors. An ADB project supported 59 primary VET schools, renovating 306 workshops and classrooms and 33 dormitories. The workshops were equipped with training facilities and equipment for 45 qualifications as part of the competency-based training pilot (NRF, 2020).

concerns persist over the digital literacy of teaching staff. Data collected by the ADB in 2017 on staff in primary VET, covering 98 vocational lyceums and more than 5 000 people, revealed that 72% of employees in educational institutions are 'computer illiterate' (having no knowledge of basic PC programmes such as Word, Excel and PowerPoint). The results of the 2019 PIAAC-inspired assessment of skills among the adult population found lower scores on ICT skills for teachers (with 62% scoring below level 1) than for the general adult population (with 48% scoring below level 1). Only the youngest cohort of teachers, in the 16–24 age bracket, had ICT skills that were comparable to the general population (Hou, Acevedo, de Laat, & Larrison, 2020). It therefore seems that the education and training system is not well positioned to support the digital ambitions outlined in the National Development Strategy.

TABLE 3.3: LEVEL OF COMPUTER LITERACY OF STAFF IN PRIMARY VET INSTITUTIONS BY USE OF PROGRAMS

Knowledge of PC programs	Number	Percentage (%)
None	3 790	72
Word	836	16
Word, Excel	281	5
Word, Excel, PowerPoint	191	4
Word, Excel, PowerPoint, Access	117	2
Word, PowerPoint	24	1

Source: NRF D.2.4, 2020. From: Implementation of e-learning in the Primary VET system (System Capacity Report, ADB project 2, 2017)

All teachers are obliged to undertake in-service training every five years. Yet the Republican Scientific Methodological Centre, which is responsible for in-service training provision for primary VET, does not manage to provide in-service training opportunities to 20% of VET teaching staff on a yearly basis. At the same time, no structured in-service provision at all exists for secondary VET, where providers and staff feel that they have to deal with professional development on their own (NRF D.2.4, 2020). While both primary and secondary VET have started to develop some key providers in Competence and Dissemination Centres, their efforts do not yet amount to a structured professional development offering.

A quality assurance system for VET is emerging, but it is not yet systematic and some gaps exist. For example, quality standards are not used because there are no approved criteria for quality assurance. The Ministry of Education plans to improve the existing accreditation system at the programme level (e.g. through methodological manuals, and training for quality assurance) and to integrate the system into the Education Management Information System (NRF D.3.3, 2020).

Policy recommendations

In conclusion, the government of Kyrgyzstan fully recognises the central role of human capital to achieve its ambitious goals for the economic and digital transformation of the country. However, since many significant gaps in human capital exist, a clear prioritisation of interventions is needed in the face of limited investment capacity.

The need for prioritisation becomes even sharper in light of the current COVID-19 crisis and its expected negative impact. A likely reduction in tax revenues will put spending pressures on public budgets that may create a risk of lower investment in human capital development.

In this context, enhanced cooperation with international donors, as well as among donors themselves in the form of joint donor projects and funding, could help the country to better target and concentrate investments in priority fields, build a critical mass for reform, and achieve sustainability.

Future polices to raise human capital will also require a rebalancing among the different sectors of education and training. While primary, general and higher education have received a great deal of policy attention in the past, the ETF assessment suggests that the strengthening of VET and its labour market relevance must now become an immediate policy priority. An equal top priority should also be assigned to lifelong learning, especially continuing vocational education and training, and it needs to be reflected in funding too.

Stronger alignment of VET provision with priority economic sectors

VET provision at all levels (initial, post-secondary and continuing VET) should more closely and rapidly follow the country's trend towards a diversified, digitalised economy. Efforts should also be made to improve the connection between the education and training sector and sectoral development strategies, which rarely consider the importance of VET and skills provision from a lifelong learning perspective.

The current slow pace of change in VET provision needs to speed up and the concentration of VET programmes in only a few sectors needs to be broadened and aligned more strongly to the priority economic sectors for future development. First and foremost, this concerns the agro-industrial complex, light industry clusters, tourism and sustainable development.

In addition, VET programmes should also consider areas in which Kyrgyzstan has clear potential for the future or it has underused potential in the present. Examples include green investment in public infrastructure and transport, and export in agricultural niche markets such as horticultural products.

In this light, the national list of occupations needs to be revisited and an independent, comprehensive review of existing VET profiles and programmes should be carried out in close cooperation with business organisations. The review should assess the degree of labour market relevance of VET provision and identify at the programme level whether the range of skills supply (both technical and soft skills) still corresponds to current demand and whether the current skills mix is adequate for the future or requires adaptation.

Given the importance of the ICT sector for the country's digitalisation, special attention should be paid to the review of ICT fields of study at different VET levels and in higher education, analysing the recent decline in participation and graduation and making proposals on the skills and skill levels that are required to support the country's digitalisation.

Experiences with the dual approach in primary VET should be evaluated and the feasibility of expansion explored for occupations related to priority economic sectors. Any expansion of the dual approach will require legislative adaptations, careful consideration of the role of in-company trainers and training provision for such trainers, and a structured exploration of the costs and benefits of the dual approach in order to create suitable financial and non-financial incentives to support employer involvement.

Launching a Digital Skills Development Initiative

Considering the gap between the country's high policy ambitions to digitalise the economy and society, including education, and become a digital hub in the region on one hand and the low level of digital literacy among the population on the other hand, the ETF suggests launching a National Digital Skills Initiative that will have a life cycle that stretches over the next 10 years.

As one of the starting points for the initiative, Kyrgyzstan could test and adapt European tools in the area, such as the Digital Competence Framework for Citizens (DigComp) with its eight proficiency levels, the European Framework for the Digital Competence of Educators (DigCompEdu), and the Framework for Digitally Competent Organisations (DigCompOrg). The latter provides a useful online, regular, self-reflection tool for schools on the uptake of digital technologies for better learning.

An in-depth, cross-sector curricula review covering both general education and VET should help to identify where the use of digital technologies in the learning process is most needed and what other methods can be applied to promote digital skills development in a school context.

For the adult population, the ETF recommends a large-scale information campaign on the importance of digital skills for employment and employability as well as for participation in a digital society. In parallel, the campaign needs to be accompanied by a systematic, multi-year programme of adult learning at local level that includes not only digital literacy courses but also other learning events, such as special TV or online self-learning programmes to improve digital skills, IT cafés, informal learning and digital skills sessions in libraries, meetings in local communities to exchange experiences, and individual or group guidance on digital skills.

A special funding facility for the Digital Skills Development Initiative should be established and linked to the Skills Development Fund (piloted by an ADB project) in order to encourage companies to upgrade the digital skills of their employees; support employment services in their efforts to train the unemployed and jobseekers; and stimulate the participation of individuals in learning activities. A Digital Skills Partnership with the business sector, donors and charity organisations could help to source additional funding for the initiative.

Systematic and well-coordinated action for skills anticipation

Despite the limitations resulting from a large-scale informal economy and the short-term planning perspective of many enterprises, the anticipation of labour market demand and skills needs is an increasing necessity for the planning of education and training. A key recommendation is to overcome the current piecemeal approach, which is characterised by the development of various instruments and tools within the remit of different organisations, uncoordinated projects that often lack regular follow-up or implementation, and occasional one-off initiatives that lack sustainability.

Therefore, the ETF recommends the creation of an inter-ministerial operational leadership and coordination mechanism for labour market and skills anticipation policy and implementation. This needs to be followed by a decision on the set of existing and new tools that are considered meaningful and feasible for the country. Finally, a master plan should establish a roadmap for systematic and regular application of the most viable tools, including a division of work among different ministries and agencies for the collection, processing, interpretation and use of information on skills and the labour market. On this specific but crucial topic, donor cooperation could be enhanced to enable for larger-scale analysis and actions as well as start-up funding. To support the sustainability of new tools,

funding also needs to be made available from national resources and the potential of the national higher education sector needs to be harnessed.

Monitoring and evaluation need to ensure that results from the anticipation of skills and labour market demand are used by education and training planners and translated into practice. For this purpose, capacity building is necessary in the involved institutions in order to lay the groundwork for common goals and a unified method across the country.

Focusing on the quality of skills development

The quality of skills is not an issue that can be solved by single players, whether government institutions or private-sector organisations. It requires coordinated efforts across education subsectors and ultimately must undergo the 'reality test' posed by the quality requirements of national and international markets for goods and services.

Therefore, a sound quality assurance system is key. The system needs to address both the basic skills acquired in primary and general education and the technical, job-specific skills learned in VET. As quality assurance is not yet fully developed in the country, the ETF recommends closing the existing gaps, ensuring clear links between general education and VET, and completing the quality assurance framework.

Additionally, thought might be given to developing the existing Competence and Dissemination Centres into VET centres of excellence in strategic fields. Such centres should span the education subsectors and could also cover applied research and business incubation. They could deliver high-quality education and training, while at the same time continuing to serve as resource centres for other VET schools and colleges. This approach reflects an international trend that started a few years ago in the European Union[22] and has since been tested in other countries as well.

Given that most VET teachers have strong training needs in various competence areas that are not met by the current provision, the ETF strongly recommends the expansion of continuing professional development with an emphasis on the skills that teachers most need, such as digital literacy, cooperation with employers, state-of-the-art technical skills and innovative pedagogy.

In VET, a standard for assessing the quality of learning infrastructure needs to be introduced, especially for practical workshops and labs in schools, which require a certain level of technical equipment with a higher frequency of replacement. The learning infrastructure also needs to be monitored more regularly by experts from the world of work, while the practice of satisfaction surveys needs to continue.

Building a National Training Alliance to foster lifelong learning

To create better lifelong learning opportunities, especially through continuing vocational education (CVET) and training, a National Training Alliance should be established with a focus on reskilling and upskilling adults who have outdated or low levels of skills. The alliance should gather commitments from leading business associations, chambers, trade unions, universities, government agencies, regional and local authorities, and donors with the aim of creating a culture of lifelong learning by

[22] The ETF 2020 publication 'Centres of Vocational Excellence: An engine for vocational education and training development' provides an overview of EU and partner country developments at: Centres of Vocational Excellence: An engine for vocational education and training development | ETF (europa.eu)

2030, pooling resources, and developing a system of CVET that is able to provide highly relevant, future-oriented training.

The National Training Alliance could organise an annual lifelong learning week and draw lessons from the European Skills Guarantee and its Upskilling Pathways initiative, which has a three-step approach of skills audit and assessment, followed by a tailor-made training offer and final validation and recognition of skills.

As the capacities of VET schools and their fee-based training offer will not be sufficient to cope with the demand for training posed by digital and economic transformation, the private training sector needs to be further developed. Therefore, a mapping and review of private training providers and their accreditation process are needed, given that little information appears to be available on the quality and relevance of their training offer.

Once the alliance has clearly defined the roles and commitments of each partner, including those in VET school and business partnerships, it could also promote the supply of training places for work-based learning and apprenticeships for young people. The alliance should be linked to the National Skills Fund and it could help to ensure the sustainability and further development of the fund.

3.2 Tackling poverty and regional disparities calls for an inclusive, integrated approach to skills development

This section analyses another human capital issue in Kyrgyzstan that is of immediate concern and where the contribution of VET from a lifelong learning perspective can make a significant difference.

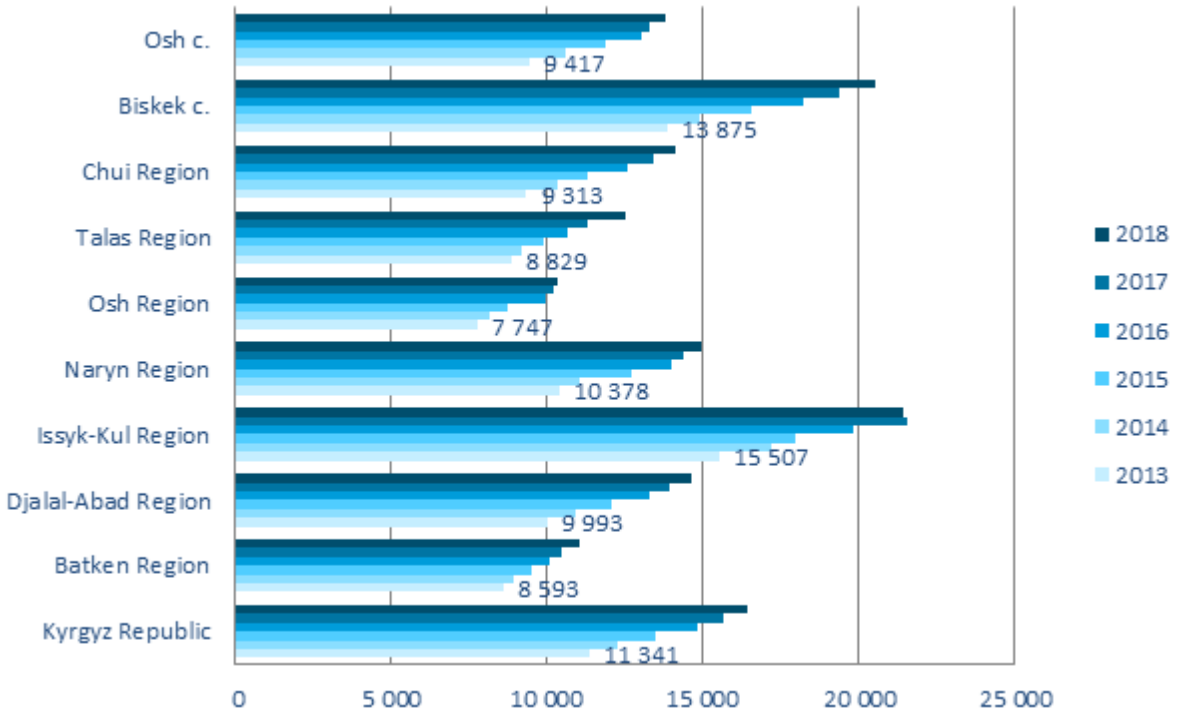
There are two phenomena that are closely interconnected and need to be addressed together. On one hand, a substantial urban–rural divide and the resulting inequalities do not allow the country to make full use of its potential. On the other hand, a high level of poverty persists and continues to undermine the potential of human capital. Both tend to become vicious circles and call for a socially inclusive, integrated approach to skills development. Putting the priority on tackling poverty and reducing disparities in the access to education and training will become even more necessary because of the impact of the COVID-19 crisis. According to international studies, the poor, disadvantaged and young will be hit hardest in the recovery phase and a ‘lost generation’ needs to be avoided (OECD, 2020b). The effects will be greater where informality is higher, where self-employment is widespread, and where services account for a larger share of GDP (EBRD, 2020). All three of these factors affect Kyrgyzstan.

In Kyrgyzstan, the VET system, especially primary VET, has traditionally fulfilled a strong social function. The NRF reiterates its mandate to address the country’s regional issues and support socially vulnerable youth and young people with disabilities. In the light of new developments, however, the system needs to reinvent its social mission and find a new balance with the equally important economic function required of VET to support the country’s future economic development.

Low income levels and poverty

The average monthly salary of a worker remains one of the lowest in the world, though it did increase by 69% in the period 2013–2018 (NRF B.1.1, 2020). Also, significant wage disparities persist between regions. In 2018 the average monthly salaries of workers in the poorest regions (Osh, Batken) were less than half the wages in the wealthiest regions of Bishkek and Issyk-Kul (KGS 20 000 or 240 euro).

FIGURE 3.4: AVERAGE MONTHLY SALARY BY REGIONS (IN LOCAL CURRENCY, KGS)



Source: NRF B.1.1, 2020. From: National Statistical Committee http://www.stat.kg/ru/opendata/

According to the National Statistical Committee, the average salary in Kyrgyzstan was slightly above KGS 15 000 at the beginning of 2019, while the average salary in the education sector (KGS 10 600) was significantly lower. Despite an increase in teachers' salaries in recent years, the low salary level remains an issue for attracting and retaining qualified staff, especially in vocational education where salaries are lower than in secondary education.

In 2018, more than 1.4 million people lived below the poverty line and 68% were residents in rural settlements. According to a survey by the National Statistical Committee, the poverty level in the country was 22.4% in 2018 (calculated on consumer expenditure) and had decreased by 3.2 percentage points compared to the preceding year (NRF C.1.1, 2020)[23]. The regions with the highest poverty levels were Osh, Batken and Jalal-Abad, with 32.6% of the population of Jalal-Abad living in poverty (GIZ, 2018).

The distribution of expenditure is highly uneven. In 2018 spending by the richest quintile was 4.3 times higher than spending by the poorest quintile. Between 2013 and 2018, the child poverty index increased from 70.1% to 73.5% (NRF C.1.2, 2020). Poverty undoubtedly remains a major issue that limits the opportunities for education and training in Kyrgyzstan, particularly for fee-based participation, and it poses an obstacle to full access to VET, especially in rural areas.

[23] In 2018, the poverty line in Kyrgyzstan was set at KGS 32 679 per capita, while extreme poverty was defined as KGS 17 471 (NRF C.1.1, 2020).

Limited choices for education and training in rural areas

Another limiting factor for human capital development is the limited access to education and training related to the geographical distribution of educational institutions, which determines the choices available to young people. Youth in rural areas have access mainly to primary vocational education since beyond general education schools, there are only vocational lyceums in rural, mountainous, cross-border and hard-to-reach areas.

Other levels of education, including secondary VET, are mainly located in urban areas and cities. A paper on the rationalisation of primary and secondary VET highlights financial considerations as a limiting factor on participation because of travel costs, subsistence costs at the place of study, and the insufficient capacity of dormitories.

In addition, the choice of occupations seems to be rather narrow and the programmes on offer do not necessarily meet the needs of young people. Most rural VET schools still focus on traditional occupations such as car mechanic, plumber, electrician and machine operator for young men, while the choices for young women are restricted to the standard list of cook, seamstress and farmer. Machine operators, cooks and seamstresses are trained every year, irrespective of whether jobs are available. New specialities are not introduced because of a lack of engineering and pedagogical staff and a lack of modern facilities (NRF C.1.1, 2020).

Disadvantageous conditions for learning

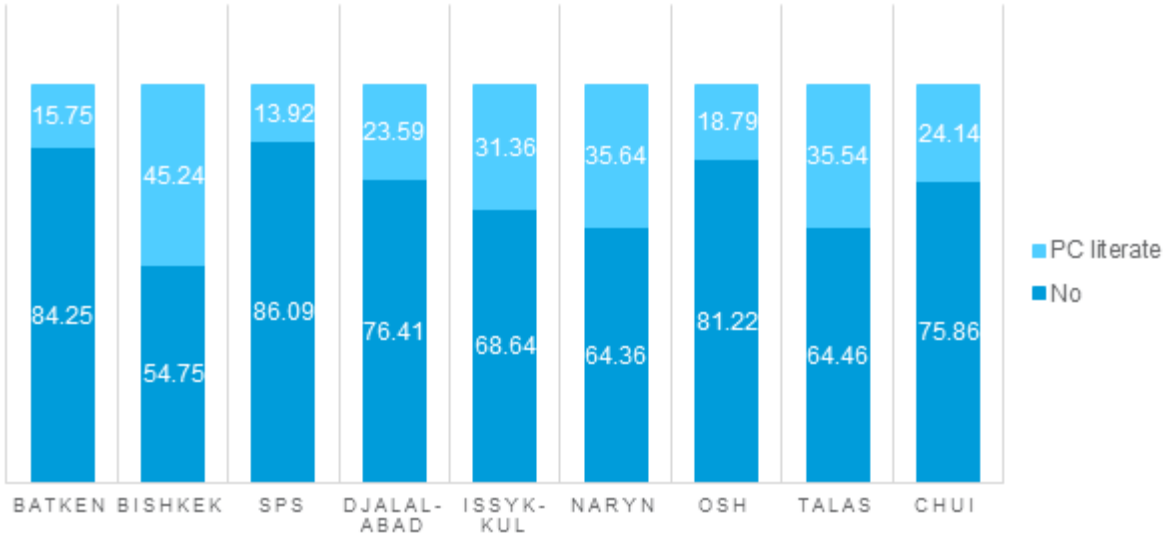
Rural areas face more serious challenges in learning and training conditions than urban areas do. For example, 90% of rural lyceums train machine operators even though there is no appropriate machinery for their practical training. As a result, training is delivered on outdated equipment. Schools in rural areas also have more problems in developing income-generating activities and marketing any goods and services produced during training (NRF C.1.2, 2020).

An earlier study found that there were not enough books and laboratory facilities for science in remote schools and that the lack of high technology had a negative impact on student interest in science. Most remote schools could not efficiently conduct physics experiments owing to a lack of proper laboratories (Revetria & Omurbekov, 2014).

The NRF highlights that student-centred learning and the use of active learning methods are not applied systematically, especially in rural educational institutions. The report points to the low level of digital literacy among the rural population and finds that ICT technologies are not fully used, especially in rural schools. This is largely due to insufficient competences among teachers and school administrators. In more remote regions (e.g. Issyk-Kul, Osh, Jalal-Abad and Batken regions), the number of teachers in need of training is even higher than in the rest of the country (NRF D.2.4, 2020).

There are pronounced differences between some regions concerning the level of computer skills among primary VET staff. While more than 80% of staff are considered ‘computer illiterate’ in Batken, and Osh regions as well as in the VET schools located in the State penitentiary system (SPS) less than 55% are considered so in Bishkek.

FIGURE 3.5: COMPUTER LITERACY OF PRIMARY VET STAFF BY REGIONS (IN %)



Source: NRF D.2.4, 2020. From: Implementation of e-learning in the Primary VET system, ADB System Capacity Report, ADB project 2, 2017; SPS stands for VET schools within the State penitentiary system

In rural areas, access to the internet is still an issue[24] and a number of primary VET schools experience shortages of teaching staff with the required level of education and relevant qualifications (NRF D.2.1, 2020).

The dropout rate in VET is high and increasing

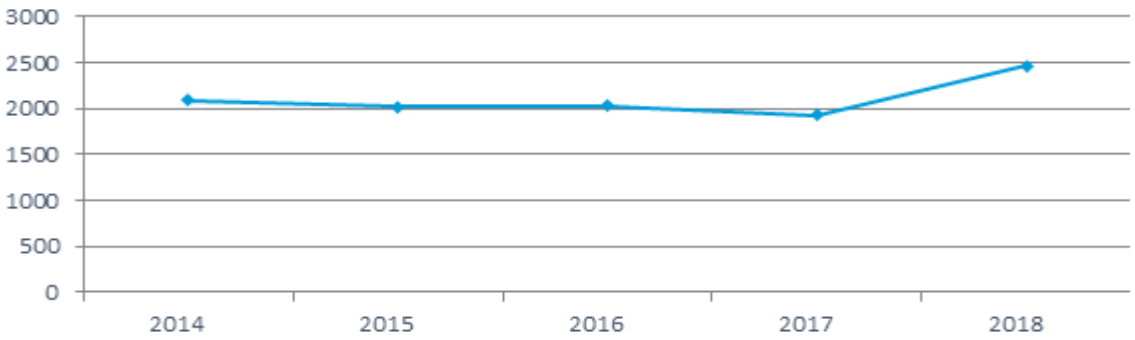
The dropout rate remained stable between 2014 and 2017 but started to increase in 2018, when it reached nearly 8% (see Figure 3.6 below). The relatively high dropout rate in VET is related to poverty and other socio-economic factors. VET in Kyrgyzstan has a widespread image of attracting mainly young people with a low level of education and low motivation. Some 80% of students are unemployed, refugees, migrant children, teenagers from single-parent and vulnerable families, disabled persons, orphans and social orphans.

Apart from poverty, migration is another major reason for the high dropout rate. Students often leave school to work abroad or because they do not have enough money for basic goods, such as travel and clothing.

Young people are often forced to drop out of school in order to look for work and sustain their family. During the agricultural season from March to November each year, students are forced by their parents to skip classes because they are needed to help earn money. Unfavourable socio-economic backgrounds, such as very poor families, parents who have migrated abroad, or early marriages, further encourage or even force students to drop out. It is widely known that students in rural VET schools are often unable to buy school supplies and materials for industrial training.

[24] Use of the internet for educational purposes is mostly limited to the Telecom network channels, which are not sufficiently strong to sustain internet use for this purpose (NRF D.1.2, 2020).

FIGURE 3.6: STUDENT DROPOUT FIGURES IN PRIMARY VOCATIONAL EDUCATION AND TRAINING (2014–2018)



Source: NRF C. 2.1, 2020. From administrative data provided by the Agency for Primary Vocational Education

Analysis from a tracer study reveals additional reasons why students drop out of school. The students' reasons include learning difficulties, a change of family status, poor sanitary conditions in educational institutions and dissatisfaction with the quality of training, in particular with regard to the organisation of practices. From the viewpoint of teachers, the main reasons are poor school education, a low level of functional literacy, weak arithmetical skills and poor student attendance (NRF C.2.1, 2020).

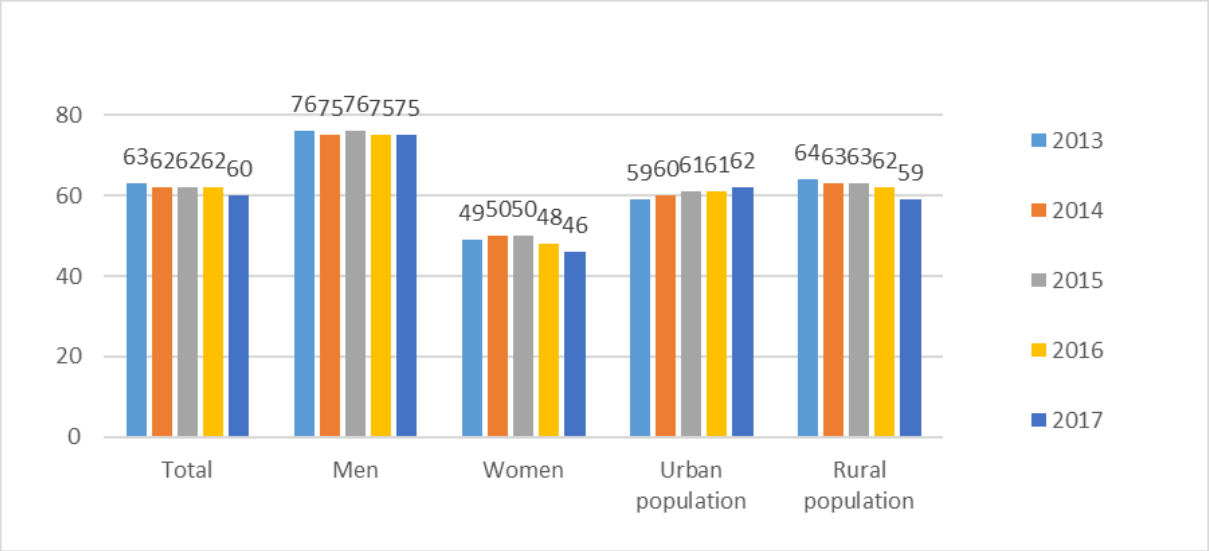
Declining economic activity of the rural population

As pointed out in section 2.2, Kyrgyzstan still has a high share of rural population (close to 64% in 2018) despite internal and external migration movements, at a time when the economic activity rate has been even higher for the rural population than the urban population.

Since 2013, however, economic activity in rural areas has steadily decreased and in 2017 the economic activity of the urban population (62% of those aged 15 and older) started to surpass the equivalent figure of 59% for the rural population (NRF B.1.1, 2020).

The main reason requires further analysis, but the downward trend indicates that more effort is needed to create employment and educational opportunities to strengthen rural regions and ultimately reduce the urban–rural divide.

FIGURE 3.7: LEVEL OF ECONOMIC ACTIVITY OF THE POPULATION AGED 15 AND OLDER BY PLACE OF RESIDENCE AND GENDER



Source: NRF, B.1.1 2020. From: Employment and Unemployment (results of the integrated sample survey of households and labour force in 2017), National Statistical Committee

Low investment in training and activation measures for the unemployed

Although the registered annual unemployment rate is relatively low (less than 3% between 2013 and 2018), only around 10% of the officially unemployed had access to vocational training in 2018. Most of the unemployed are young people who do not possess a plot of land, while the share of unemployed people with primary vocational education is particularly high among the rural population. Public expenditure by the Ministry of Labour and Social Development on social protection of the unemployed is also low (0.5% in 2018) and the unemployment benefit (KGS 300 or around 4 euro) is less than 2% of the average monthly salary of a worker in the country. A training voucher for officially registered unemployed individuals can be used up to an amount of KGS 5 000 (around 60 euro), but the actual cost of training is several times higher (NRF B summary, 2020) and seems to be a barrier to participation.

There is an issue of outreach to the unemployed and possibly also of the attractiveness and relevance of the training offer, which is partially being addressed by the Skills Development Fund established by the ADB.

Policy responses

The government of Kyrgyzstan has devoted considerable attention to the challenges posed by poverty and the country's urban–rural divide. The year 2019 was declared the year of regional development and digitalisation and several investment projects were launched in the regions, ranging from infrastructure, transport and energy to the food processing and textile sectors. It will be important to step up investment in human capital to support and increase the effectiveness of the modernisation process in the regions.

Financial and technical support from several international donors and development agencies has become a key driver of policies to tackle poverty and lessen disparities. Among the most influential policies have been the United Nations Sustainable Development Agenda, the Education Development

Strategy 2012–2020 (supported by EU Direct Budget Support), and rural development projects supported by the ADB, ILO and GIZ.

Donor support with an impact on human capital development in rural areas

One common approach to tackling or even eradicating poverty is by strengthening local communities and businesses. For example, fostering the capacity of local farmers, tourism providers and rural services through training, advice, coaching and peer learning as well as investments in technology is supported by the EU-funded Integrated Rural Development Programme (2018–2022). Ultimately, the programme aims to improve the income opportunities of the rural population in southern Kyrgyzstan with a focus on Jalal-Abad region.

Another approach to achieving an impact on poverty reduction is through direct support to unemployed people who participate in vocational training and labour market measures. By increasing the offer of qualification courses in agricultural processing and greenhouse management, rural development is promoted. A GIZ programme on sustainable economic development (2017–2019) includes this human capital component in its goal to improve the employment situation in selected regions of Kyrgyzstan (NRF A.3.5, 2020).

As part of a United Nations integrated development programme aimed at Osh region, VET is being strengthened in the target areas in order to create long-term employment growth and ensure sustainable human development in the region.

Policy attention on the social inclusion of vulnerable and marginalised groups

In recent years, several legal documents have been developed on inclusion. A range of vulnerable and marginalised groups have the legal right to study at VET institutions. The affected groups range from people with disabilities, orphans, street children and children who experience abuse and domestic violence to people in correctional institutions and former offenders. People with disabilities can now obtain an occupation to work from home and progress has been made on the labour market integration of people with disabilities, whose level of economic activity increased from 27% to 37% in the period 2013–2016 (last available data)[25].

According to law, some groups such as orphans and students from socially vulnerable populations have a right to special benefits. These include a severance grant of KGS 3 000, social scholarships, free meals, clothing and footwear, medicine, textbooks and other educational material.

The Skills Development Fund, established as component of an ADB project, provides training for women, out-of-school youth and disabled people in order to improve their employment opportunities. The fund gives special attention to the organisation of short-term courses in rural educational institutions (NRF B.1.6, 2020).

Within primary VET, six schools are open in correctional institutions in order to provide training to convicts, who can gain qualifications as a welder, carpenter, joiner or electrician. Another example of social inclusion is the reintegration of convicts into society through training and other measures, such as improving their working conditions and providing continuous professional development with an

[25] This progress may be due to the government's efforts to comply with international standards, such as the ratification of the UN Convention on the Rights of Persons with Disabilities, the European Union GSP+, and the monitoring of this indicator as part of the Sustainable Development Goals (NRF, 2020).

emphasis on practical skills. Adult education in the penitentiary system in Kyrgyzstan is promoted by the German Adult Education Association (DVV).

Policy recommendations

Strengthening the skills dimension in rural development

Regional and rural development initiatives and funds should integrate and strengthen the skills dimension more systematically in order to increase access to education and training beyond primary VET. An innovative, flexible approach that uses blended learning, including distance education and modular environments in secondary education and VET, should be tested and evaluated in rural areas where there is no or difficult access to this type of education.

To make the education and training offer more attractive to people in rural areas, the range of VET programmes needs to be broadened beyond traditional occupations, while the practical training in enterprises and organisations should be incentivised for both practical training providers and students.

Enhancing support services to improve access to and completion of skills development programmes

To tackle the issue of high dropout rates in VET and the phenomenon of learners, who cannot attend full-time because of the need for family work, support services should be enhanced for both students and their families. Proper student counselling and career guidance can improve access for vulnerable groups and prevent them from dropping out of school and VET. Additional learning support opportunities could also play a significant role in this respect. A pilot financial support scheme for poor families could be tested to see whether it has a positive impact on school and VET attendance.

The effectiveness of training resource allocation for the unemployed should be reviewed and funds for active labour market measures increased, especially for training and career guidance for the most vulnerable groups.

Further attention should be paid to data collection and monitoring on the participation of vulnerable groups in education and training. The current approach is based on a narrow definition of vulnerability[26].

[26] Data are typically collected on special needs students and orphans. Even this limited information, however, is not easily accessible across education subsectors.

4. CONCLUSIONS

> 'The Kyrgyz Republic is at an important stage of its history when the prerequisites for its long-term development as a politically stable, economically strong and socially responsible state have been created for the first time…'By 2040, Kyrgyzstan will emerge as a strong, self-sufficient, developed state with the individual at the centre as the highest value, together with his life, health, rights and freedoms, and the most favourable environment for him. 'The education system will focus on the education of a harmonious personality fulfilling the true potential of each person through the formation of practical knowledge and competencies. Every citizen will have an opportunity to receive a quality education.'
>
> (Statements in the National Development Strategy 2018–2040)

In conclusion, the government of Kyrgyzstan fully recognises the central role of human capital to achieve its ambitious goals for the country's economic and digital transformation. However, the magnitude of the human capital challenge is huge and a clear prioritisation of interventions is needed in the face of limited investment capacity.

The need for prioritisation becomes even sharper in light of the current COVID-19 crisis and its expected negative impact. The likely reduction in tax revenues will put spending pressures on public budgets that may create a risk of lower investment in human capital development.

Future polices to raise human capital will require a rebalancing among the different sectors of education and training. While primary, general and higher education have received a great deal of policy attention in the past, the ETF assessment suggests that the strengthening of VET and its labour market relevance must now become an immediate policy priority. An equal top priority should be assigned to lifelong learning, especially continuing vocational education and training, and it needs to be reflected in funding as well.

In this context, enhanced cooperation with international donors, as well as among donors themselves in the form of joint donor projects and funding, could help the country to better target and concentrate investments in priority fields, build a critical mass for reform, and achieve sustainability.

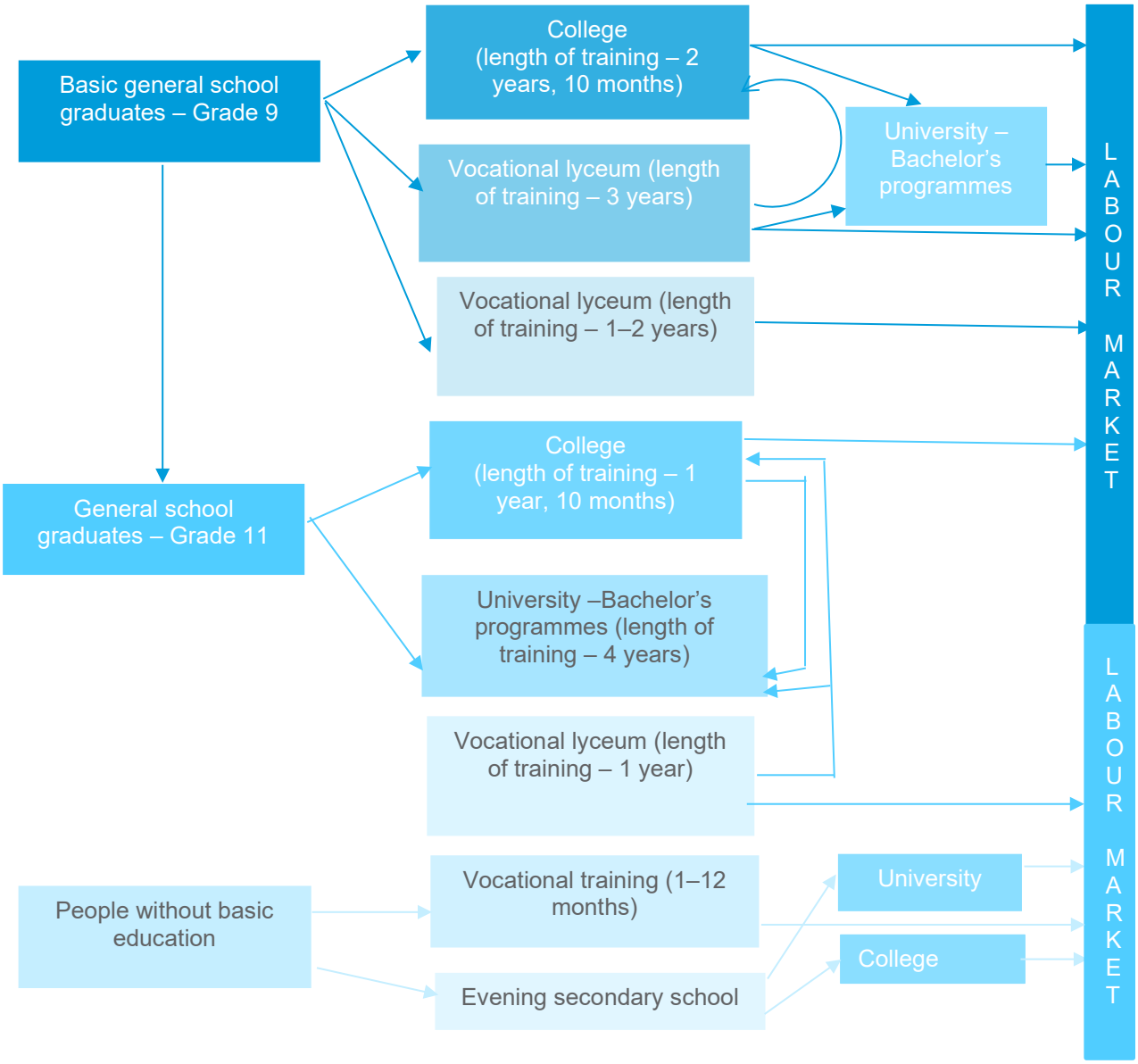
The assessment in this report concludes with a series of recommendations to tackle these challenges with a view to strengthening the contribution of education and training to human capital development in the country. A summary of the key recommendations can be found in Annex 1. It is hoped that they will be useful for Kyrgyzstan in the implementation of the National Development Strategy 2018–2040, as well as in the planning of future donor projects, including EU support.

ANNEX 1. SUMMARY OF RECOMMENDATIONS

Human capital development and use problem	Recommendations	
	Recommendation	**Actions**
Economic and digital transformation calls for more responsive VET and stronger lifelong learning	Stronger alignment of VET provision with priority economic sectors	■ Align VET provision to the diversification and digitalisation requirements of the country; develop a better connection between education and training and sectoral development strategies by enhancing the role of VET and skills provision from a lifelong learning perspective. ■ Review the list of occupations, VET profiles and the skills mix. ■ Expand apprenticeship opportunities in priority sectors and proceed with institutionalisation of the dual approach.
	Launching a Digital Skills Development Initiative	■ Test and adapt European Digital Competence Frameworks for organisations, teachers and citizens, and their related tools. ■ Conduct a curriculum review on digital skills and the use of digital technologies. ■ Establish a funding facility for digital skills and partnership with the business sector.
	Systematic and coordinated action for skills anticipation	■ Develop a mechanism for inter-ministerial operational leadership and coordination. ■ Devise a unified method and decision-making on the set of tools. ■ Create a master plan for regular implementation and capacity building of the institutions involved; leverage the capacity of the higher education sector and existing organisations with expertise to support the sustainability of new tools; allocate national resources.
	Focusing on the quality of skills development	■ Engage in coordinated efforts across education subsectors; develop existing Competence and Dissemination Centres into Centres of Vocational Excellence that span subsectors. ■ Complete and fully apply the quality assurance system ■ Enhance teacher training in the skills most in need. ■ Develop a standard for the quality of learning infrastructure, including connectivity aspects.
	Building a National Training Alliance to foster lifelong learning	■ Create a National Training Alliance for reskilling and upskilling. ■ Promote a culture of lifelong learning and create a lifelong learning week. ■ Review and strengthen private training provision for adults.
Tackling poverty and regional disparities calls for an inclusive, integrated approach to	Strengthening the skills development dimension in rural development	■ Engage in the systematic integration and strengthening of the skills dimension in rural and regional development initiatives and funds. ■ Test a flexible, modular and distance learning approach for secondary education and VET in rural areas. ■ Broaden the range of VET programmes and incentivise practical training.

skills development	Enhancing support services to improve access to and completion of skills development programmes	■ Enhance support services for both students and their families to support access and prevent dropping out. ■ Implement a financial support scheme for poor families to increase school and VET attendance. ■ Review the funding system for the training of the unemployed and increase funding for active labour market measures. ■ Improve data collection and monitoring on the participation of vulnerable groups in skills development.

ANNEX 2. THE EDUCATION AND TRAINING SYSTEM OF KYRGYZSTAN



Source: NRF A.3.3, 2020

ACRONYMS

ADB	Asian Development Bank
CAEP	Central Asia Education Platform
COVID-19	Coronavirus pandemic
CPD	Continuing Professional Development
CVET	Continuing vocational education and training
DVV	German Adult Education Association
EAEU	Eurasian Economic Union
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EDB	Eurasian Development Bank
EPCA	Enhanced Partnership and Cooperation Agreement
ETF	European Training Foundation
EU	European Union
FDI	Foreign Direct Investment
GIZ	German Corporation for International Cooperation
GDP	Gross domestic product
GHG	Greenhous Gas Emissions
GNI	Gross national income
GSP+	EU's Generalised Scheme of Preferences plus
HCD	Human capital development
HCI	Human Capital Index
HCI-SES	HCI disaggregated by socio-economic status
HDI	Human Development Index
ICT	Information and Communication Technology
ILO	International Labour Organisation
IMF	International Monetary Fund
IOM	International Organisation for Migration
ISCED	International Standard Classification on Education
IVET	Initial vocational education and training
LFS	Labour Force Survey
LLL	Lifelong learning
NAEP	National Assessment of Education Progress
NEETs	Not in education, employment or training

NRF	National Reporting Framework
OECD	Organisation for Economic Co-operation and Development
PES	Public Employment Service
PIAAC	Programme for the International Assessment of Adult Competences
PISA	Programme for International Student Assessment
SDG	Sustainable Development Goal
UNDP	United Nations Development Programme
VET	Vocational education and training
WBL	Work-based learning
WHO	World Health Organisation
WTO	World Trade Organisation

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