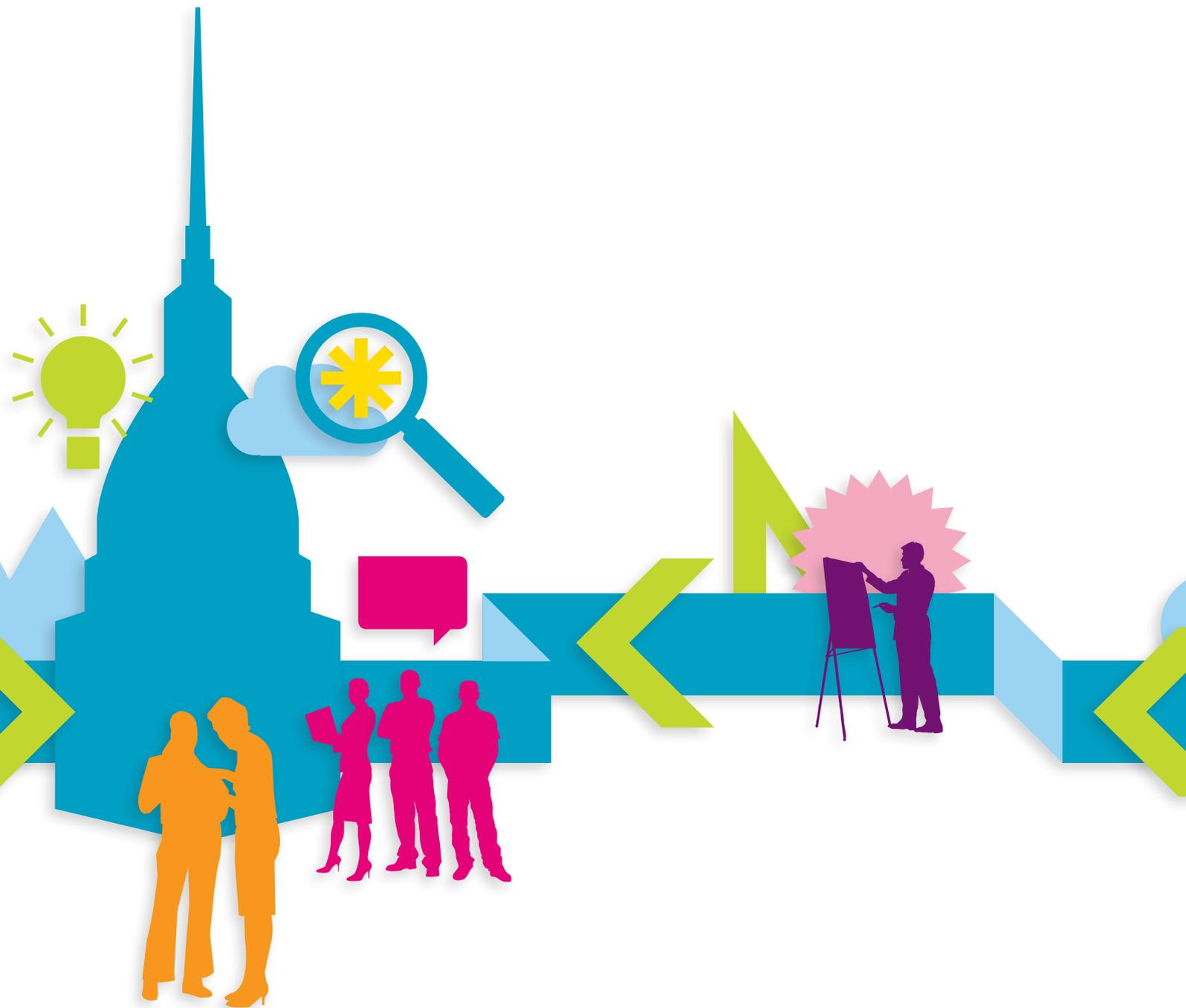


TORINO PROCESS 2012

UZBEKISTAN



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EXECUTIVE SUMMARY

The Government of Uzbekistan has a vision for vocational education and follows a co-ordinated approach to economic and social transition with the national authorities playing a key role in steering the development process. During the past two years the vocational education sector's vision with respect to policy and implementation has been largely stable with developments mainly being related to the continuing implementation of the national reform process established in 1997 under the **National Programme for Personnel Training** initiative (NPTT). Important developments include the completion of the infrastructure of professional colleges for upper secondary vocational education planned as part of the NPTT, measures to improve the quality of teaching and the maintenance of the education system's ability to absorb the large youth cohort. Both the business community and the national authorities have identified the development of a national qualification framework as new potential new policy initiative that could support links between the vocational education sector and the business community. As in 2010, the 2012 Torino Process report has been prepared through an ETF led process. This involved the preparation of a draft report and its subsequent discussion in October 2012, with Uzbekistan stakeholders; including the Centre for Secondary Specialised Vocational Education, the Department of Labour and Social Protection, as well as the Ministry of Economy and the Chamber of Commerce. Comments were received concerning the use of data, particularly in relation to estimates of unemployment and social statistics. Where possible these comments have been taken into account in the finalisation of the report.

The **conclusions** of this report are presented below.

1. The vocational education system is largely efficient and is a sector in transition in an economy in transition. The government has demonstrated strong capacities to initiate and implement a far reaching and reform of the national education system. However, the burden of the governance of skills development has mainly been falling on government authorities.
2. The Business Community has been an important supporter of the reform and modernisation process, and needs to become a more active and stronger contributor to the reform process, particularly in relation to:
 - financing and governance;
 - mapping of new skill requirements for emerging sectors of vocational education (teaching, learning, assessment and career guidance) in the secondary education sector;
 - providing guidance and support to national and regional authorities on skill needs;
 - supporting small business in the vocational education system.
3. Public expenditure on education is high and any increase to support continuing vocational training may need to consider further support through public and private partnerships.
4. The relative demand for continuing vocational training (CVT) by those in the labour force who are without university level qualifications but who have aspirations to access positions which are seen to require higher level qualifications is likely to increase. To support this, the business community through industry associations and chambers of commerce should continue their discussions with the national authorities on the development of continuing vocational education and training (CVT) through a national qualification framework.

A. VISION AND STATE OF THE ART IN VOCATIONAL EDUCATION AND TRAINING

The Government aims to support the development of Uzbekistan from a low - middle income economy to a high – middle income economy by 2050¹. The Government of Uzbekistan has adopted a 'gradualist' model of economic transformation which aims to co-ordinate this development through strategic interventions that minimise economic and social problems. The goal is to build the competitive capacities of the economy while maintaining social expenditures and improving the wellbeing of the population.

To achieve this Uzbekistan will need to maintain consistently high rates of growth over an extended period of time. Developing the labour market and the skills of the population are important contributors to this goal. According to the Asian Development Bank (ADB), 'Uzbekistan effectively avoided the financial crisis of 2008–09, achieving growth of 8.1% in 2009, and 8.5% in 2010. In 2011, real GDP grew by 8.3%, mainly reflecting a favourable external environment, sustained public investment, and rising private consumption. Uzbekistan's strong growth and robust macroeconomic stability is set to continue. GDP growth is forecast to rise by 8.0% in 2012 and 7.9% in 2013².

The Uzbek Government has a clear vision for its national education and training system. The national model of education and training was developed with vocational education identified as playing a key role through the introduction of the National Programme for Personnel Training (NPTT) commenced in 1997. This initiative had a series of integrated objectives:

- increasing senior secondary education (SSE) from two to three years;
- restructuring and rationalizing the agencies responsible for education services such as the Ministry of Public Education (MOPE) and the Ministry of Higher and Secondary Specialized Education (MOHSSE);
- decentralizing financial resources;
- improving public governance in educational establishments;
- increasing the salaries of teachers; and
- modernising the framework for curriculum, instruction materials, and learning assessment.

Vocational education and training has been developed in Uzbekistan to support the Government's 'gradualist' approach. It aims to do so in three main ways: firstly, as a foundation for education and personal development, i.e., as part of the education system; secondly, as a source of skills and competencies required in employment, i.e., as part of the labour market; and thirdly, as a contribution to social cohesion by ensuring that the youth population has equitable access to competencies with which they can usefully establish a role in society, i.e., as a means of supporting civic and social participation.

In doing so the sector provides an underpinning for Uzbekistan's national economic development strategy and contributes to both short and long term objectives. The short term objective seeks to ensure that the currently high youth population is supported by an education system that enables them to make a successful transition from learning to the world of work. The long term objective relates to

¹ World Bank Country Partnership for Uzbekistan 2011; for definition of low, middle and high income countries see http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Europe_and_Central_Asia

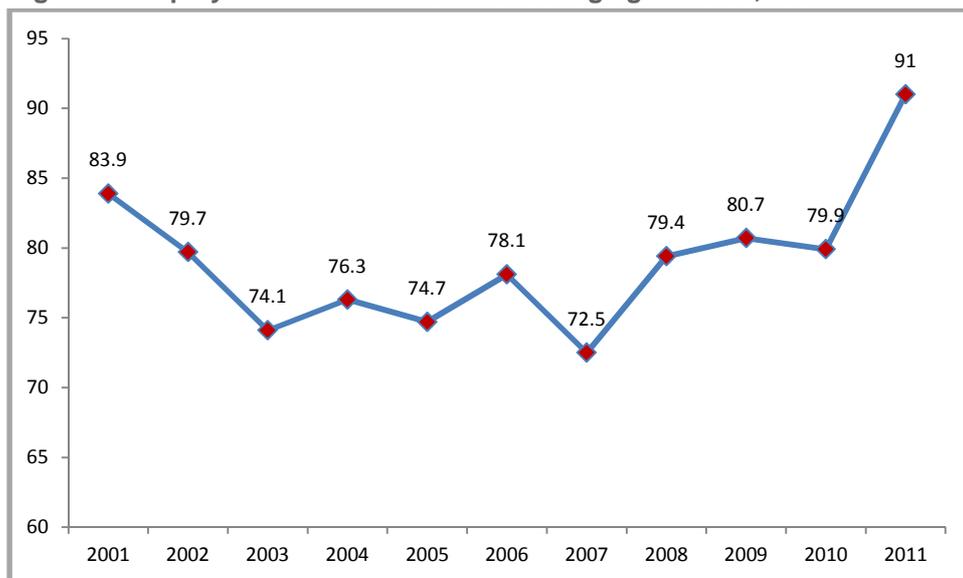
² Asian Development Bank Country Partnership Strategy: Uzbekistan 2012–2016 Economic Analysis: Overview Of Macroeconomic Policies And Performance.

creating a labour force that can make a sustainable contribution to the economy as it develops and grows.

B. EXTERNAL EFFICIENCY: ADDRESSING DEMOGRAPHIC, ECONOMIC AND LABOUR MARKET NEEDS

Over the past decade the official figures on the employment rates of vocational graduates have fluctuated while remaining at relatively high rates. This suggests that the vocational education system has been externally efficient during the structural adjustments of the past decade and the patterns identified in the Torino Process report of 2010 have been continued.

Figure 1. Employment rate of vocational college graduates, 2001-11



Data provided by SSVE 2012 (report of the project)

The stability of vocational graduate employment reflects the Government's managed approach to economic change and its use of programmes that encourage graduate recruitment into the labour market. As part of its structural policies the Government introduced a series of measures called, the Territorial Programs on Quality Training and Use of the Labor of Graduates of Professional Colleges and Academic Lyceums for the period 2006-10³.

The aim is to employ as many secondary school graduates as possible, and also at creating new jobs through using the support of an Employment Fund. The Employment Fund was first introduced in the 1990's and finances the development and placement of unemployed persons into new jobs. This has been an effective labour market co-ordination measure which takes into account the specificity of each region. Under the programme Coordination Councils have been established under regional governments (Khokimiyats). They are headed by the Governor (Khokim) and include representatives of many governmental and public organizations.

The initiative is co-ordinated by the Ministry of Labour which through its adult training service also delivers a range of training programmes to support labour market adjustment. The duration of these programmes range from between one and six months for unemployed persons and are delivered

³ UNESCO TVET Report Uzbekistan 2011

locally and regionally in co-operation with the Centre of Specialised Secondary Vocational Education (SSVE⁴).

The economy of Uzbekistan is characterised by very young and rapidly growing population. The share of young people under 15 years of age reached 32.7% of the population in 2008 while young people from 16 to 29 years comprise 29%, including 16 year-olds, who account for 2.4%. As a result of demographic trends, Uzbekistan is experiencing a rapid increase in the working age population, significantly increasing the overall population⁵.

With regard to trends in the labour market, in 2004-2009 the labour force grew by 23.9% to reach 16 million people, while the employed population increased by 26.1% and totalled 11.3 million people in 2009⁶. Women's employment growth has been strong during the period 1999–2008, an average of 3.4% per year⁷.

Rapid economic growth and the implementation of new employment programs in Uzbekistan led to an increase of 14% in employment from 2005 to 2010. In general, annualised growth of jobs in the second part of the decade amounted to 2.8%. More than 3.8 million new jobs were created during this period with 1 million created alone during 2010⁸. According to the Ministry of Labour and Social Protection, "815,500 new jobs were created in January-September 2011 in Uzbekistan, of which 512,400 vacancies were in rural areas. The highest employment rates have been registered in construction, housing and communal sector, domestic services, trade and public catering, transport and communication⁹.

Notwithstanding the measures taken to ensure the employment of graduates, some imbalances exist in the labour market; e.g., 45% obtain employment in their field of study, while 55% obtain employment in a related field¹⁰. The Torino Process report of 2010 also highlighted a possible mismatch between education and the labour market.

In 2011, 50% of participants in the Ministry of Labour's adult training programmes were under the age of 30 and 40% were aged between 30 and 50¹¹. The large proportion of young people participating in the programme suggests that the 'mismatch' phenomenon appears to be a structural aspect of the interaction between the vocational education system and the labour market, with contributing features from both the vocational education system and the labour market.

On the labour market side, the mismatch may be a reflection of the new sector growth patterns which are emerging as Uzbekistan moves progressively from a planned economy.

⁴ Ministry of Labour, Tashkent, May 2012

⁵ Expanding Technical and Vocational Education and Training at the secondary education level, UNESCO report on Uzbekistan, November, 2011

⁶ Assessing development strategies to achieve the Millennium Development Goals, UNDP – Centre for Economic Research Uzbekistan, Tashkent, 2011

⁷ Opportunities for Men and Women in Emerging Europe and Central Asia, World Bank 2012

⁸ Central Asia on line reported that Uzbekistan's employment programme aimed to assist 915,000 find jobs in 2011 with 478,000 jobs being in the small business/service sector 216,000 in home based employment, and the industrial and social infrastructure development sectors accounting for 73,000 positions

⁹ www.ut.uz/eng/parlament/securing_employment48.mgr

¹⁰ Estimates provided by the Centre for Secondary Specialised Vocation Education (SSVE), Tashkent

¹¹ Estimates provided by the Ministry of Labour, Tashkent, May 2012

Table 1 Sector composition of GDP¹² (%)

Year	Services	Construction	Agriculture	Industry	Net taxes
2000	37	6	30	14	13
2002	39	5	31	14	11
2004	38	5	27	17	13
2006	39	5	24	22	10
2008	43	6	19	22	10
2010	44	6	18	24	8

The changing patterns of skill needs is reflected in shifts in output towards industry and services sectors which increased their share of GDP by 7% and 10% respectively and a corresponding fall in agriculture's share of GDP which declined by 12% in terms of its contribution to GDP. The Asian Development Bank reports that in line with the Government's managed approach to the economy, a '\$47.3 billion industrial modernization and infrastructure development program will be implemented during 2011–2015, with significant investments planned in oil and gas, electricity generation, chemicals, metallurgy, and other strategic sectors. The program's objective is to increase industry's share in GDP from 24% in 2010 to 28% in 2015¹³.

Small business development is a further important feature of the structural adjustments of the economy with impacts on the use of the skills of the graduates of vocational education. In 2009 the workers of small businesses accounted for 74.2% of total number of employed compared with 57.2% in 2005 – similarly, small businesses accounted for 50.1% of GDP in 2009 as against 35.6% of GDP in 2004¹⁴. Small business is therefore a growing sector both in terms of employment and in economic contribution. This is likely to impact on how individuals are recruited into the labour market following their education, how their skills are used in the workplace, and how they acquire further skills to enable them to progress in the labour market.

According to the World Bank *Doing Business 2012 survey*, Uzbekistan ranked 166 out of 183 countries¹⁵. Similarly, in its assessment of economic reform in Uzbekistan, the European Bank for Reconstruction and Development (EBRD) identified that in many industry sectors which are important to structural adjustment in the economy, the reform gaps were either large or medium. Nevertheless, the EBRD also found that support for a market economy and democracy is high and in particular, the EBRD found that in terms of its transition indicators, Uzbekistan's progress in 2011 in small scale privatisation reflected the standards of an industrialised market economy¹⁶.

The apparent mismatch between vocational graduates and labour market needs could also be due to the content of vocational education at secondary level, i.e., young people are seeking retraining because what they have learned at school does not correspond to the types of work found in employment. Alternatively, it could be that the nature and structure of work is more changing rapidly and the skills requirements are changing accordingly, e.g., the team work, project based working, multi-skilling. A further reason may be that in some cases students are not fully assessing their

¹² World Bank Country Partnership Strategy for the Republic of Uzbekistan, November 2011

¹³ Asian Development Bank Country Partnership Strategy: Uzbekistan 2012-2016 Economic Analysis : Overview of Macroeconomic Policies and Performance

¹⁴ Asian Development Bank: Private Sector Assessment Country Partnership Strategy 2012-2016

¹⁵ World Bank Doing Business Report, 2012

¹⁶ European Bank of Reconstruction and Development: Transition Report 2011

choices at school and may be selecting career options that they subsequently feel inappropriate after entering the labour force.

In the first instance, there may be a need to consider how the content of vocational education is identified. In the second, the issue may reside in closer collaboration between the business community and the education system. However, vocational programmes provided in by the professional colleges already include an internship phase during which the students are exposed to the labour market and the workplace conditions in which they are expected to apply their skills. In the third case, the solution may lie with improved career guidance, so that students are making more accurate choices over their future professions.

The vocational education system although largely efficient is a sector in transition in an economy in transition and will encounter on-going challenges. As the new sectors, such as the commercial service and retail industries develop, they will create new skill requirements. Such new skill requirements will need to be mapped to the current vocational provision of the secondary education sector. Likewise the development of new companies will create new emerging industry career paths and industry based labour markets.

With respect to new skill requirements, the current vocational education system appears well established to meet the rising demand, e.g., the current vocational programmes conducted in the vocational education system already covers the business and commercial sectors. It is likely that new skills profiles can be developed and incorporated into the vocational system as they arise, e.g., the existing system already offers 225 professional profiles and 578 associated specialisations to students. In addition the structure of vocational curricula by combining general, core professional and specialist learning seeks to prevent students from becoming too narrow in their skills prior to entering the labour force, i.e., it enables the students to be broadly relevant to a range of labour market opportunities.

In the case of new industry based labour markets suggests that as new employees develop their experience in the emerging sectors, they will over time find the need to upgrade their skills and qualifications. Under the existing system VET is mainly at upper secondary level, while post school education is largely provided for by the universities and by the adult training programmes provided by the Ministry of Labour. In general neither of these options operates as a further education sector for people in the labour force seeking to add to their existing skills as a means of on-going career advancement. A more comprehensive post-secondary vocational option may also be necessary to maximise the benefits for the economy of the secondary education reform. The absence of a formal system for post school vocational skills development may also constrain the Government successful steering of labour market adjustments during the current growth phase of the economy, e.g., as employers seeking to recruit workers with higher level of skills face skill shortages.

With the growth in small business, there will be a concomitant need for new business service skills oriented towards management and leadership and flexibility as well as people management associated with coaching, mentoring and training skills. These skills could be supported by enlarging the role of entrepreneurial and business related skills in existing vocational curricula.

The issue is regularly discussed in both policy and business circles, and various surveys (e.g., World Bank 2002, 2003, 2005 and 2008 ¹⁷) indicating that companies providing practical training to their staff have been in decline and that small companies generally do not provide training.

To an extent, the potential for successful adjustment is in place, e.g., a recent inclusion is the introduction of business and enterprise education into the secondary curricula at both the academic

¹⁷ World Bank, Enterprise Survey, www.enterprisesurveys.org/ExploreEconomies/?economyid=199&year=2008

and vocational lyceum through the 'bases of enterprise and business'. There are and there are also networks of business associations that co-operate and engage with government authorities in terms of education and the labour market at the regional and national level.

Similarly, the national chamber of commerce plays an important role in supporting the growth of entrepreneurs and small businesses and the development of small business is a key priority of economic policy. These have facilitated much of the labour market transition that has already taken place. Nevertheless, the dynamic nature of Uzbekistan's economic growth may be creating new demands. As the economy continues to grow and adapt, it may become increasingly necessary to evaluate how the current arrangements need to evolve to ensure a smooth gradient of adjustment. An example may be to increase the role of the business community in shaping the content and delivery of vocational programmes. Processes do exist currently but there may be scope for employers to provide clearer information on business needs and to participate in the assessment of trainee competence prior to their certification of competence.

C. EXTERNAL EFFICIENCY: ADDRESSING SOCIAL DEMANDS FOR VET AND PROMOTING SOCIAL INCLUSION

As a consequence of its structural adjustment process, the ADB found that 'High growth has led to greater inclusion and improved welfare of the people of Uzbekistan as measured by declining poverty, rising wages, improved access to basic services, larger investments in human capacity, and higher public expenditures for social development and social protection. While Uzbekistan's gross domestic product (GDP) growth per capita increased 1.4 times over 2005–2010, cash earnings per capita increased 2.7 times, average monthly wages 4.3 times, pensions 3.8 times, personal savings 4.9 times, and consumption expenditures per capita 2.6 times¹⁸. The context of this improvement also includes a high and growing dependency within households (*i.e.* the small number of working adults relative to total household members), which in 2010 were 44.3% for the 0-14 year age group and 6.6 for the 64+ age group¹⁹.

Differences between rural and urban experiences are important in terms of ensuring that the benefits of vocational education are evenly distributed. The agricultural sector of the economy covers about 34% of employment, while over 60% of the population lives in rural areas.

The Centre for Economic Research in Tashkent, found that 'according to data from the State Committee of Uzbekistan on Statistics, the rate of employment growth has consistently lagged behind real GDP growth. It peaked in 2004 (3.4%) and remained relatively stable, dropping to 2.7% in 2009²⁰. The World Bank suggests that 'those who could not find employment at home, many from rural communities, migrated to find employment abroad. The number of Uzbek migrants in Russia and Kazakhstan is currently estimated at about 2 million, or about 12% of the country's working age population. While remittances, estimated at about \$1.8 billion or 4.5 % of GDP in 2010, help low income families maintain a minimal standard of living, more jobs need to be created within the country. In addition, structural changes in the economy will bring about changes in the nature of the skills development required in vocational and higher education²¹.'

Uzbekistan achieved gender equality in primary and general basic secondary and secondary vocational education in 2005. The growth of women's involvement in upper secondary education has been an important objective of the reform and offers greater potential for increasing the depth and breadth of women's participation in the labour force and general position in life²². Vocational education system is inclusive in that the system is free and that it covers upper secondary education for the majority of students. This means that vocational education has a high status as an education destination for students, *i.e.*, it is not perceived as a lower preference relative to general education. In higher education male enrolments are greater than female enrolments (40.5% during 2005-10) which are lower than the trend in Central Asia.²³ However, gender balance is expected to improve in higher education by 2015²⁴.

The educational attainment of employed women is on average higher than employed men. According to official data, 95 % of both men and women of working age were employed in 2010, although

¹⁸ Asian Development Bank Country Partnership Strategy: Uzbekistan 2012–2016, Poverty Analysis

¹⁹ ADB Education Evaluation report 2010

²⁰ Assessing development strategies to achieve the Millennium Development Goals, UNDP – Centre for Economic Research Uzbekistan, Tashkent, 2011

²¹ World Bank Country Partnership Strategy for the Republic of Uzbekistan, November 2011

²² Presidential address at the International conference on 'Fostering a well educated and intellectually advanced generation', Tashkent, February, 2012

²³ Opportunities for Men and Women in Emerging Europe and Central Asia, World Bank 2012

²⁴ World Bank Country Partnership Strategy for the Republic of Uzbekistan, November 2011

according to survey data female employment is only 50 %²⁵. Women account for about 45 % of the labour force and over 65 % of health and education system employees. They are under-represented in agriculture, construction, industry, and services and only 25% of female entrepreneurs received financial credit in 2007. Similarly women account for only 10% of business managers. There is also evidence that women are benefiting less than men from the restructuring of shirkats (local publically owned enterprises) into private farms: in 2007, only 7.2% of private farmers were women²⁶.

Uzbekistan is moving to a situation in which the share of working age population is of prime working age. This suggests that it will be increasingly important that this labour force is used effectively to maximise the economic benefits and returns from an expanding population²⁷. The rural economic sector will have a significant influence on the degree to which these benefits can be realised. An Industrial Modernization and Infrastructure Development Programme²⁸ adopted by the Government for the period until 2015, includes specific industry policy measures that target key industries associated with the rural sector, e.g., Agri-processes and textiles and may provide a means to increase the role played by vocational education in supporting the structural adjustment process.

²⁵ Opportunities for Men and Women in Emerging Europe and Central Asia ,World Bank 2012

²⁶ Opportunities for Men and Women in Emerging Europe and Central Asia 2012

²⁷ Opportunities for Men and Women in Emerging Europe and Central Asia 2012

²⁸ http://siteresources.worldbank.org/ECAEXT/Resources/258598-1322667768215/UzbekistanFY12_15CPS.pdf

D. INTERNAL QUALITY AND EFFICIENCY OF INITIAL AND CONTINUING VET DELIVERY

A defining characteristic of Uzbekistan's national model of education is the division of upper secondary into vocational and academic (general) education. General education is provided through Academic lyceums and vocational education through Professional lyceums, or colleges.

Professional colleges offer, together with general subjects, professional skills and knowledge for a chosen profession (technical and vocational education and training (TVET). The colleges aim to provide secondary specialized vocational education with in-depth development of professional skills and train students in one or several trades of a chosen profession.

Both professional and academic secondary education has grown considerably since the introduction of the reforms of the NPTT in 1997. Since 2010 a key development has been the consolidation of the model's capacity through the completion of a final set of professional colleges for upper secondary professional education. The vocational sector is the largest sector of upper secondary education with the numbers increasing from 757,600 to 1,404,500 between 2005 and 2010²⁹.

Figure 2. Overview of the national education system



Data provided by the SSVE, Tashkent, May 2012 (report of the project)

The education and curricula of both academic lyceums and professional colleges is provided on a three-year basis. At the end of each year of studies students are tested in exams in order to assess the students' level of knowledge and skills.

Upon completion students of secondary specialized vocational educational establishments are awarded a diploma of secondary specialized vocational education with an award describing their relevant professional qualification³⁰.

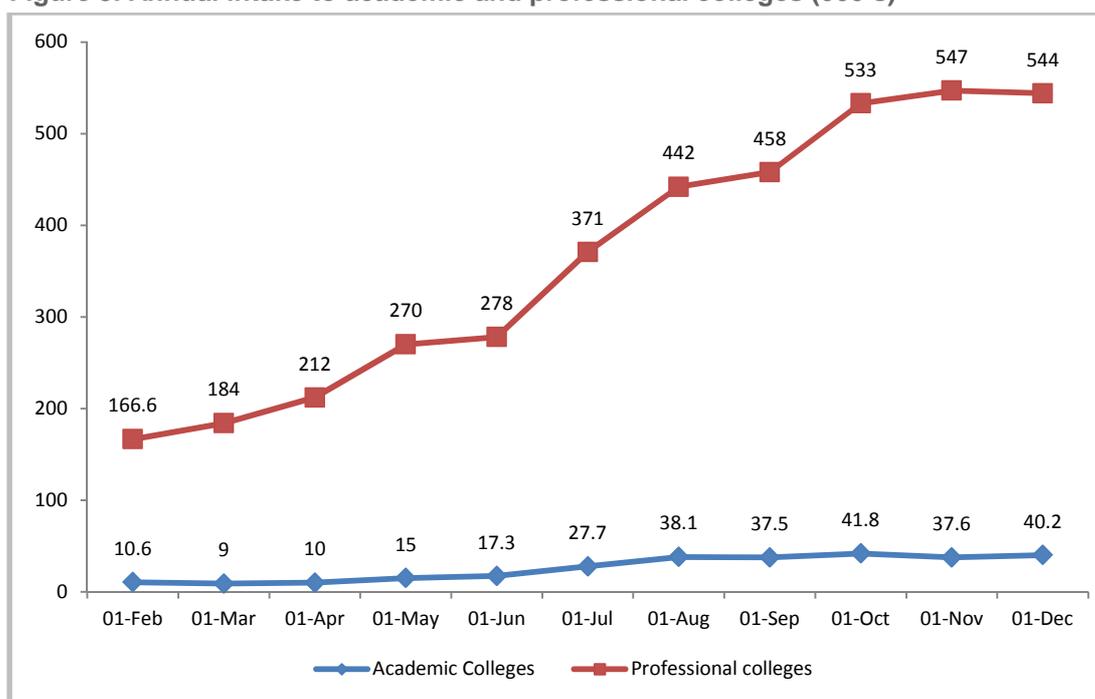
²⁹ Expanding Technical and Vocational Education and Training at the secondary education level, UNESCO report on Uzbekistan, November, 2011

³⁰ Students in academic lyceums or colleges receive a corresponding award detailing their profile of studies, including their academic specialisation.

High literacy, enrolment and graduation rates suggest that present Government policies are generally meeting the demand for primary and secondary education. Key aspects are that it involves 12 years of compulsory education. Curricula are common until 16 at which point the education systems splits into the academic and vocational pathways. Vocational education is broadly conceived and aims at the capacity to think and perform in a broad sector of industry sector rather than simply the ability to carry out the functions required in a specific job or occupation.

The overwhelming numbers of students passing from general education to the upper secondary education level move on to study at professional colleges.

Figure 3. Annual intake to academic and professional colleges (000's)



Data provided by Centre for Secondary Specialised Vocational Education (SSVE) (Report of the Project) 2012 Tashkent, May 2012

The development of institutional infrastructure, the academic and professional colleges to accommodate the growth of the student population and the national vision has been extensive since the late 1990's.

Since 1998, the number of new institutions has increased systematically from under 50 to over 1 500.

Table 2. Growth of academic and professional colleges 1998-2011

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Academic colleges	15	28	40	44	51	57	68	76	82	104	127	138	141	143
Professional colleges	20	106	207	286	404	539	639	725	842	1 027	1 101	1 371	1 396	1 430
Total	35	134	247	330	455	596	707	801	924	1 131	1 315	1 509	1 537	1 573

Data provided by SSVE Tashkent, May 2012 (report of the project)

The compulsory nature of upper secondary education is reflected by growing and high enrolment and attainment levels.

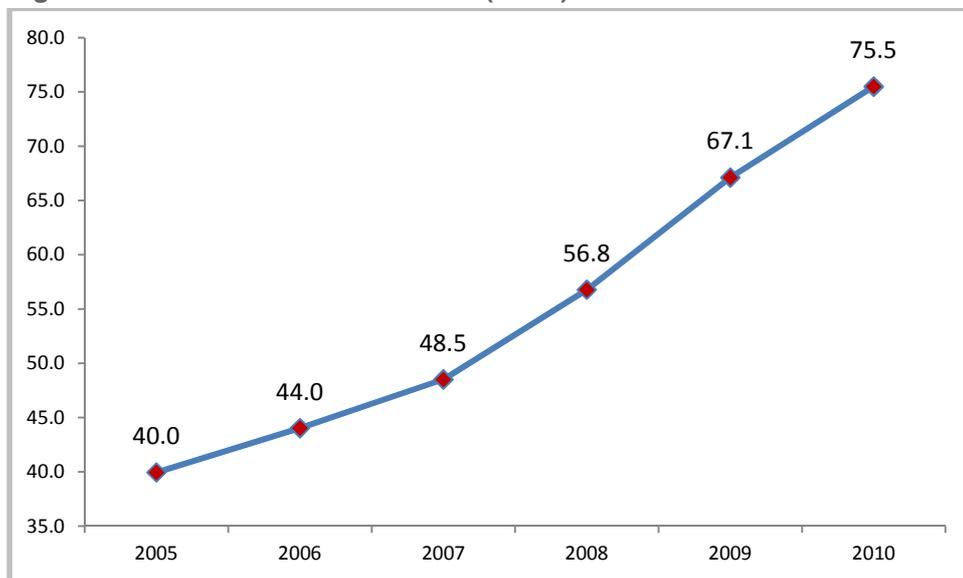
Table 3. Participation in academic and professional colleges 2000-12 (000's)

	2000	2005	2010	2011	2012 ³¹
Number of students	532.6	744.7	1 632.1	1 717.8	1 724
Enrolment rates %	41.7	49.6	98.2	98.7	100
Female	47.4	48.4	48.5	48.5	48.6
Male	52.6	51.6	51.5	51.5	51.4

Data provided by SSVE Tashkent, May 2012 (report of the project)

The growth in number of students participating in vocational education has been mirrored by the growth in the number of teachers during the last decade. In the academic year 2009/2010, 82,634 teachers and associated vocational training officers work in the system of SSVE. Some 92.8% of teachers in professional colleges have a higher education³².

Figure 4. Growth in teachers 2005-10 (000's)

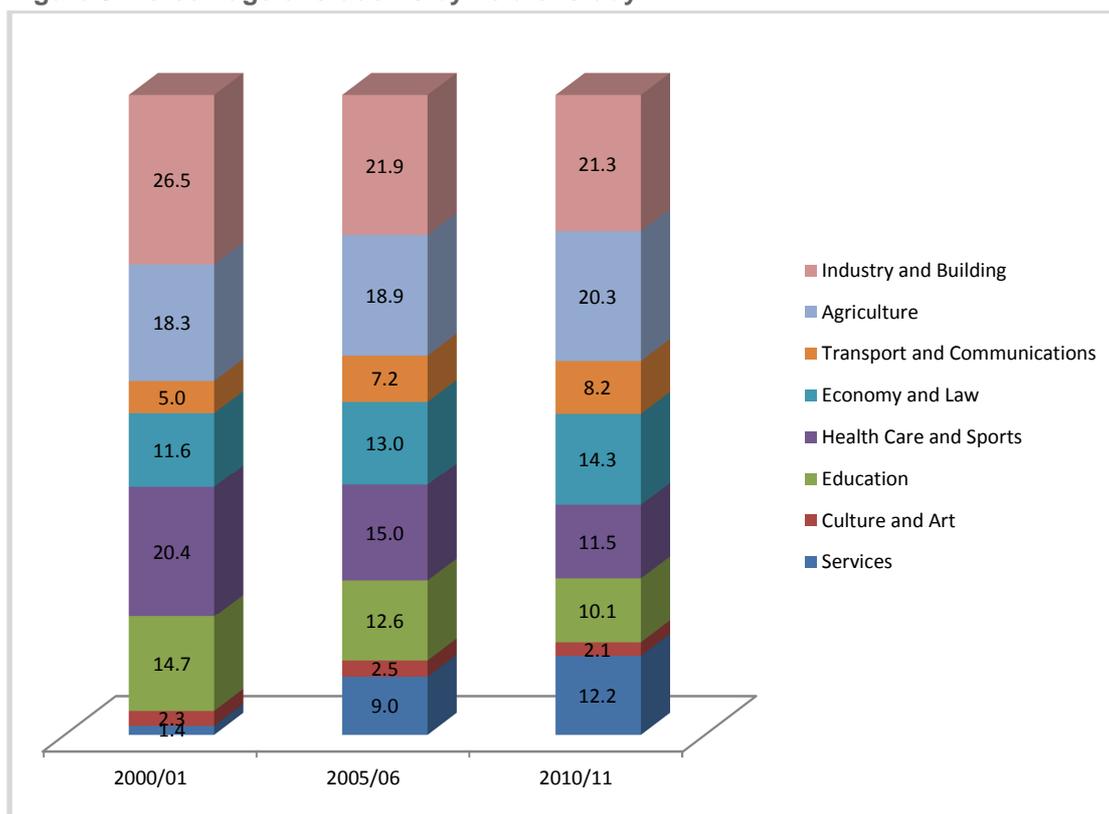


The curriculum in upper secondary professional education is differentiated according to industry fields.

³¹ Forecast Tashkent, May 2012 (report of the project)

³² Source: State statistics committee of the Republic of Uzbekistan

Figure 5. Percentage of students by field of study



Data provided by SSVE Tashkent, May 2012 (report of the project)

In the last decade, service sector fields of study have increased strongly, while other sectors have changed only moderately, with a significant decline in the share of students in building and industry studies notwithstanding the strong growth in these sectors. In responding to this the Government moved in 2010 to modify the specialisations of 59 professional colleges and unify a range of professions based on feedback on their current effectiveness³³. In addition, the rapid growth of the system has led the Government to review aspects of its operation to maintain the momentum of the implementation of the reform, e.g., in July 2011, the Government introduced a series of measures to improve the system of student training, and teaching quality.

The higher education system is growing rapidly but there are a limited number of places available for access by vocational education students. Although pathways exist between upper secondary professional education and university, the percentage of students who follow a pathway to university at completion of vocational education is low – estimated to be 10%. The ratio of vocational to academic college admissions has oscillated around 13:1 in the last five years.

Table 4 Annual ratio of vocational to academic admissions, 2001-11

Year	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12
Ratio of vocational/ academic college admissions	15.1	20.4	21.2	18	16	13	11	12	12.7	14.5	13

Ratios prepared by ETF based on admissions data provided by SSVE 2012

³³ 21 June 2011, Cabinet of Ministers of Uzbekistan adopted resolution "On admission to secondary special, professional educational establishments of Uzbekistan in 2011/2012 academic year".

As participation in academic colleges offers the primary pathway to high education, the longer term implication of these admission rates is - in the context of continuing high rates of economic growth – that there will be a high wage premium for those with university level qualifications in the next decade relative to those with secondary qualifications. This may increase the relative demand for continuing vocational training by those who are in the labour force who are without university level qualifications but who have aspirations to access positions which are seen to require higher level qualifications.

In addition, as male tertiary participation rates are higher than female participation rates, the development of a wage premium for those with university qualifications could have a subsequent and potentially long lasting impact on the gender distribution of employment in the higher skill occupations.

The national model does not contain a defined formal further education sector, e.g., Fachschule, or Community College, for post-secondary school graduates which mean that vocational education is mainly undertaken at the school level. Post-secondary and non-publically accredited training will to some extent already exist through the groups of private providers supplying specific skill needs in the labour market. Overtime; this may give rise to the use of industry based, but not publically accredited qualifications.

Similarly, the absence of higher level, non-university pathways means that there may be a growth in the use of qualifications from other national education systems. While this is likely to support individual and business needs, there may also be a need to identify what such internationally achieved higher level vocational qualifications mean in terms of Uzbekistan's education system. In addition, there is also a need to assist with the recognition of skills of migrants returning to the country following a period of employment.

Uzbekistan has a national system of qualifications or credentials. However, these are only broadly set in a formal relationship with each other. Clarifying the relationship of each qualification level in terms of its expected level of skills and knowledge could give further support to the Government's education and training system in that it would provide the authorities with a policy tool with which to develop relationships between the different sectors, e.g., higher education and higher vocational education and training. For the business community the framework would provide a reference against which they could assess the quality of post-secondary, non-university certificates.

A task force comprising the major stakeholders including the Chamber of Commerce and the Ministry of Education was established in 2011 on a national qualification framework, including how the national system of qualifications in Uzbekistan could be referenced to the European Qualifications Framework. The qualification levels in Uzbekistan's education and training system (i.e., the qualifications at the doctorate, masters, bachelor and upper secondary education) can be indicatively referenced at the corresponding levels of the European Qualifications Framework. Further work would confirm if and how these references are useable and any adjustments that could be made to describe the framework of qualifications and the basis of further work.

Table 5. Indicative framework of qualifications

Main qualifications in Uzbekistan		European Qualifications Framework levels
Doctorate	The top three levels of the EQF correspond to the higher education levels of the Bologna process	8
Masters		7
Bachelors		6
No apparent publicly accredited qualification at this level in Uzbekistan		5
Upper secondary	Level 4 of the EQF corresponds to qualifications at the completion of upper secondary education	4

Mapping each of the main qualifications in Uzbekistan produces a broad framework of qualifications and may also be able to allocate additional qualifications to the EQF levels, e.g., the achievement of compulsory general education might be referenced against level 3 level. Similarly level 5 of the EQF can be considered as corresponding to the Bologna Process’s short cycle higher education – any similar type of qualification in Uzbekistan could be referenced to this level. This could have significant labour market benefits both to individuals and the business community, particularly in relation to operational business management skills for new labour market roles.

The possibilities of the development of post-secondary vocational education are evident in Uzbekistan and human capital development and its contribution to sustainable development and growth was subject of a new report by the Centre for Economic Research in 2012. The report concluded that there was scope for the further development of a system of continuing vocational education, retraining and advanced training for people of all ages (Centre for Economic Research, 2012).

E. GOVERNANCE AND FINANCING OF THE INITIAL AND CONTINUING VET SYSTEM AND INSTITUTIONAL CAPACITIES FOR CHANGE

Management of the education system is distributed between the Ministry of Higher and Specialised Secondary Education (MHSSE) and the Ministry of Public Education (MPE). The Ministry of Public Education has responsibilities for pre-school, general, special, and teaching training. The model has been highly successful not only in facilitating educational access, participation, and attainment for the youth population, but Uzbekistan was also ranked second for Central and South Asia region in terms of education innovation in the 2012 Global Innovation Survey (Global Innovation Index, 2012).

The Ministry of Higher and Specialised Secondary Education covers higher education and specialised secondary education – including vocational education and training. Other Ministries which have responsibility for specialist training institutions associated with their specific industry areas, inter alia, Railways, Tourism, and Water co-operate with both the Ministry of Public Education and the MHSSE. The Ministry of Labour and Social Security manages and co-ordinates an extensive network of training centres for adult learners.

An additional body is the Republic Testing Centre, which is an autonomous institution that manages the development and implementation of test for both specialised and general education for the certification of students.

Day to day operation management for general and primary education, i.e., pre-16 year-olds is managed by provincial and district boards.

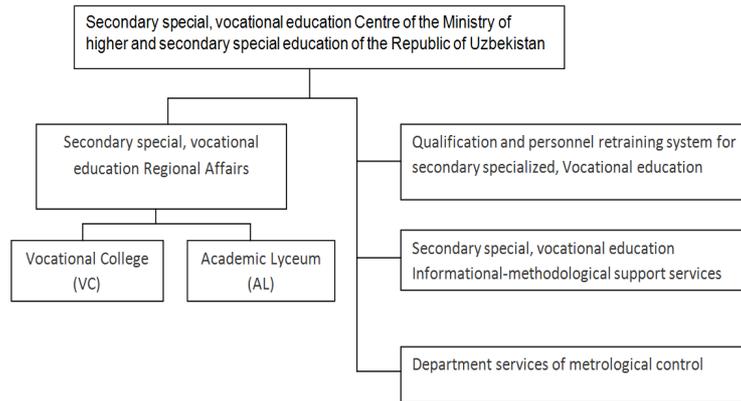
All the academic lyceums and vocational colleges are the responsibility of Ministry of Higher and Special Secondary Education (MHSSE). The Ministry reports to the Cabinet of Ministers of the Republic of Uzbekistan. The principal managing agency is the Centre for Secondary Specialised Vocational Education (SSVE), under the MHSSE. It is responsible for managing the academic, methodological and organizational activities of academic lyceums and professional colleges. It provides services related to secondary special professional education for the leaders of governance bodies (as agreed with the local authorities), and also for providing qualified professors, teachers and technical trainers. In addition, a special service of the Centre for Secondary Specialised Vocational Education (SSVE) was established in 2011 to deal with information-methodological support of professional colleges and academic lyceums.

This SSVE Centre thus has a key supervisory and coordinating role over vocational education, including the development and introduction of national educational standards, and ensures coherence in education programs and the training and retraining the teaching staff.

The main tasks of the SSVE Centre are the following:

- coordination and management of SSVE activity;
- organization and material-technical provision of academic lyceums and professional colleges;
- ensuring development and control of state education standards;
- selection, training and professional development of teaching staff ;
- mainstreaming of international and national experience in staff training.

Figure 6. Structure of SSVE



The national education standards which are prepared for all curriculum fields act as a key organising instrument in the system as they shape curricula content, assessment objectives as well as teaching aims.

The SSVE co-operates with regional (local) bodies particularly in relation to the completion of year 9 students in the general curriculum and their subsequent enrolment in academic and professional colleges.

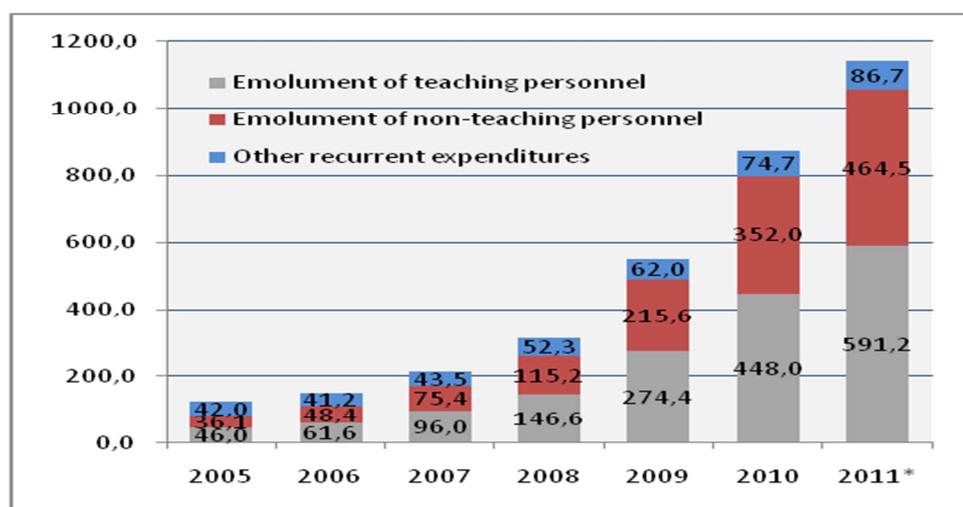
As the major part of the governance of skills development mainly falls on government authorities, there is scope to improve the capacity of business to advise and assist government in its planning processes. At present, the Ministries of Economy, Education and Labour develop estimates of expected skill needs from an annual survey that collects data from local and regional agencies, including employers. This information could be supplemented by additional input from employers, e.g., through qualitative assessments of skills needs or through long term assessments of the skill needs. This could be undertaken through the development of sector advisory boards associated with strategic sectors, e.g., agriculture, and the commercial and service sectors.

In terms of financing, Uzbekistan’s education system outperforms peer countries in the lower middle-income group. Public spending on education is high in Uzbekistan and closer to those found in higher income countries. In 2010 total education expenditures reached 33.8% of the public budget and 8.3% of GDP³⁴. Around 24% of the education budget is being used for financing of the secondary specialised professional education³⁵.

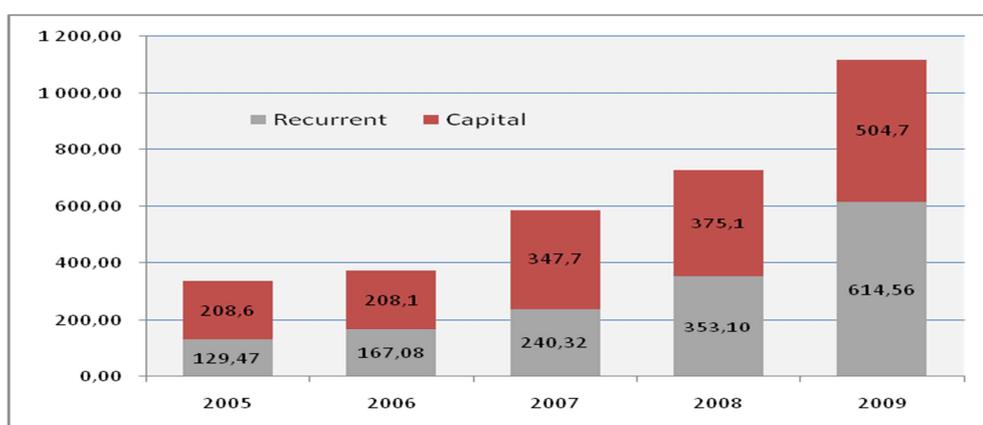
³⁴ Data of the Ministry of Finance of the Republic of Uzbekistan.

³⁵ Calculated based on the Ministry of Finance’s data (including recurrent and capital expenditures).

Figure 7. Accumulative expenditure on professional vocational education



UNESCO 2011 report on technical and vocational education and training in Uzbekistan



In 2009/10, about 91% of the total recurrent expenditure was utilized for personnel costs, which include salaries, allowances, and social security.

Table 6. Expenditure on AL and VC with scholastic-laboratory equipment, technical and learning-technological lines, 1998-2011 (billion soum)

Source of funds	
Total amount from state budget	132,2
From foreign investment	234,6

Data provided by SSVE 2012 (report of the project)

Over the past four years the Government has introduced a number of measures to improve teachers' remuneration, including salary increases and the establishment of a new performance-based incentive system for education personnel³⁶. In 2008, the Government also introduced a series of measures to strengthen financial incentives and improve the system of remuneration of employees of secondary special and vocational education institutions. The new incentive scheme includes monthly additional 'top-ups' to the basic salary rates to reward high-performing teachers. To facilitate reward schemes for teachers, a Director's fund was set up in each school covering up to 15% of total annual payrolls.

³⁶ Ministry of Finance, Uzbekistan, 2011

Through this fund teachers of academic lyceums and professional colleges can receive additional payments for, e.g.:

- class tutoring – 100% of the minimum salary respectively;
- regular checking of student's homework - 50% of the minimum salary;
- administration of teaching and laboratory cabinet- 50% of the minimum salary.

Since 2010 per-capita financing has been gradually introduced in the financing model of secondary specialized professional education.

There are also some existing examples of specific industry support for vocational education in some sectors, e.g., automotive where General Motors provides financing for some schools or the petrochemicals/gas sector where industry supports vocational training for workers in the industry.

As with governance, however, the majority of financing falls on the Government. As expenditure is already high any increase in funding may need to consider financing partnerships with the business community, particularly in relation to the further development of a continuing vocational sector. In this respect, there is an opportunity to consider public private partnerships as a means to support the financing a governance of a continuing vocational training sector. This could be developed on regional bases, or through an industry sectoral approach or through a national process.

ANNEXES

Annex 1. Assessment of governance arrangements for vocational education in Uzbekistan

Elements or functions within a VET system ³⁷	Authority	Competences	Resources	Accountability
	Who are the actors legally in charge of this function? Have roles ³⁸ and responsibilities been adequately defined?	Do actors have the technical competences that are needed to fulfil this function?	Do actors have adequate financial and human resources to fulfil this function?	In what way are the actors in charge made accountable for the work done?
Policies and legislation				
Defining national VET and employment policies	Ministry of Higher and Special Secondary Education (MHSSE). Center of Secondary-Specialized and Professional Education (SSVE Centre)	yes	yes	MHSSE + Government
Monitoring national VET and employment policies	SSVE and Ministry of Labour and Social Protection	yes	yes	yes
Legislation for VET (both initial and continuing)	Ministry of Higher and Special Secondary Education (MHSSE) Ministry of Labour and Social protection	Yes, For initial under the MHSEE and for adult learning under the Ministry of Labour – there is scope to review how this would be affected by a national qualifications framework and what role the business community could take	Public resources are extensive and clearly targeted. Scope for additional investments from business sector.	MHSSE – Government

³⁷ Based on available information – to be verified/validated

³⁸ Actors could have decision-making, advisory or executive roles.

Qualifications and curricula				
National, sectoral and regional skill and training needs analyses	Ministry of Higher and Special Secondary Education (MHSSE). Center of Secondary-Specialized and Professional Education (SSVE Centre) Centre for Testing	Yes Could be supported by further input from business community, i.e., business associations and chambers	Yes	Government
Designing a list of occupations	Ministry of Labour and Social protect in co-operation with SSVE	Yes Could be supported by further input from business community, i.e., business associations and chambers	Yes Could be supported by further input from business community, i.e., business associations and chamber	MHSEE and Ministry of Labour and Social Security
Definition or revision of standards/qualifications	Center of Secondary-Specialized and Professional Education (SSVE Centre) In concert with Chamber of Commerce	Yes, but business community and higher education could provide additional information	Scope for international collaboration and sharing of information on trends on qualifications	SSVE/MHSEE – informally business associations
Development or revision of curricula (all types)	Center of Secondary-Specialized and Professional Education (Yes, would benefit from input from business community	Yes, funding in the future could be reviewed for higher levels of vocational education	MHSEE
Teachers and trainers				
Pre-service training and induction of VET teachers	SSVE Centre and its subdivisions aimed at improving the quality of specialist training. A special service is being established to deal with information-methodological support of professional colleges and academic lyceums.	Yes, being upgraded	Yes,	MHSEE
Recruitment of teachers	SSVE in co-operation with regional and local authorities	yes	Not clear – expenditure levels are high	MHSEE
In-service training of VET teachers	As above			
Teacher appraisal and career development	SSVE divisions, but also involves school principals under director's funds	Yes,	Not clear	MHSEE

VET providers				
Network of providers of - initial VET - continuing VET	Varied – SSVE in collaboration with regional authorities, but also includes Ministry of Labour and Social Protection	Scope for closer collaboration in governance with business community	Yes	SSVE and provincial governments
Planning VET programmes and student numbers	Estimates are provided by SSVE and Ministry of Labour – and related Ministries, e.g., transport – to Ministry of Economy. Both Ministry of Labour and MHSSE maintain their own plan in respect of their programmes – co-ordinated planning in the use of professional colleges to support adult training at regional level	Need for more input from business community	Yes	MHSEE – business community Ministries of industry
Planning budgets for vocational schools	SSVE and Local/regional authorities Ministry of Economy Ministry of Labour	Yes, but additional qualitative information from business would support the planning process	Yes – some additional expertise from business community on mid-term forecasting of skills in the labour market would assist	MHSEE/ Ministry of Economy
Dealing with school expenses (managing school budgets)	SSVE and Local/regional authorities	Yes,	Yes	SPPE: MHSEE

Annex 2. Torino Process key indicators 2012

Torino Process key indicators 2012 – External efficiency

Indicator	Year	Uzbekistan
Total population (million)	2011	29.34
Annual population growth (%)	2011	2.7
Share of 15-24 in the total population (%)	2010	22.4
Total dependency rates (%)	2011	49.6
Young dependency rates (%)	2011	43.1
Old dependency rates (%)	2011	6.4
Global Competitiveness Index (rank, out of 144)	12/13	na
Annual GDP growth (%)	2011	8.3
GDP per capita, PPP (current international \$)	2011	3309.9
Agriculture, value added (% of GDP)	2011	18.9
Industry (incl. construction), value added (% of GDP)	2011	36.1
Services, value added (% of GDP)	2011	45.0
Share of employed in agriculture (% ,15+)	1999	38.5*
Share of employed in industry (incl. construction) (% ,15+)	1999	19.4*
Share of employed in services (% , 15+)	1999	42.1*
Activity rates (% ,15-64)	2010	63.9*
Activity rates, female (% ,15-64)	2010	50.5*
Employment rates (% ,15-64)	2010	54.0* (15+)
Employment rate, female (% ,15-64)	2010	42.4* (15+)
Unemployment rates (% ,15-64)	2008	0.41
Unemployment rates, female (% ,15-64)	2011	md
Youth unemployment rates (% , 15-24)	2011	md
Youth unemployment rates, female (% , 15-24)	2011	md
Completion of at least upper secondary education (% , total aged 15+)	2011	md
Adult literacy rates (% , 15+)	2010	99.4*
Adult literacy rates, female (% , 15+)	2010	99.2*

Torino Process key indicators 2012 – Internal efficiency

Indicator	Year	UZ
Participation in VET (% of upper secondary)	2006	63.8
PISA results – % of students at proficiency level 1 or below in reading	2009	na
PISA results – % of students at proficiency level 1 or below in science	2009	na
PISA results – % of students at proficiency level 1 or below in mathematics	2009	na
Employment rates by educational level, upper secondary VET (% , 15-64)	2011	md
Unemployment rates by educational level, upper secondary VET (% , 15-64) ⁷	2011	md
Participation in lifelong learning – % of 25-64 years old having participated in lifelong learning	2011	md
Dropout rates in upper secondary VET	2011	md
Student–teacher ratio in upper secondary VET	2011	md

Torino Process key indicators 2012 – Governance and financing

Indicator	Year	UZ
Public expenditure on education (% of GDP)	2010	8.3
Public expenditure in upper secondary VET (% of total education spending)	2010	24.0

Notes: (1) administrative data; (*) estimated; md – missing data; n/a – not applicable

Sources: World Bank; United Nations Development Programme; UNESCO Institute for Statistics; International Labour Organisation, KILM database; The State Committee of the Republic of Uzbekistan on Statistics; LABORSTA database

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