CHAPTER 15

The Transformation of Higher Education in Turkmenistan: Continuity and Change

Victoria Clement and Zumrad Kataeva

INTRODUCTION

Turkmenistan is a Central Asian country that has experienced significant reforms in its higher education system since the end of the Soviet Union. Because Turkmenistan’s state archives are not available to researchers, this chapter is based on limited available information such as statistical information of CIS countries, NGO reports, mass media reports and the reports of international agencies.

Turkmenistan is one of the largest holders and exporters of gas in the world. The country is comparable to the size of France in territory, but it is sparsely populated by approximately five million people. The country possesses the world’s fourth largest reserves of natural gas. According to the World Bank (2014), Turkmenistan has become an upper middle-income economy driven by hydrocarbon exports: GDP per capita rose from 970 USD in 2002 to nearly 7,000 USD in 2013. Among Central Asian countries, Kazakhstan has a larger GDP per capita (10,508 USD),

V. Clement (✉)
Woodrow Wilson Center for International Scholars, Washington, DC, USA

Z. Kataeva
Institute of Education, Higher School of Economics, Moscow, Russia

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with Kyrgyzstan and Tajikistan the lowest: 1,103 USD and 926 USD, respectively.\footnote{Living standards of the Turkmenistan population have improved over the past years, supplemented by massive investment in physical capital. Natural gas exports, which consist of 90 percent of overall export, have pushed national economic growth. The extractive sector accounts for nearly half of Turkmenistan’s GDP.}

Although the country has made a significant progress in macroeconomic indicators, the quality of Turkmenistan’s human capital—its health and education systems—lags behind most other comparable nations, such as Azerbaijan or Ukraine. Moreover, “the Human Development Index (HDI), a composite statistic of life expectancy; education; and income, shows that despite the enormous increase in income per capita experienced in recent years, improvements of health and education outcomes are not remarkable.” The people of Turkmenistan have lower life expectancy than most neighbors, let alone the populations of more developed resource-rich countries around the world. Current employment rates of 55 percent and a labor force participation rate of 61 percent for the 15–64-year-old population are low by international standards. According to the same study, with the working age population projected to increase by one-third in 2030, investment in human capital is insufficient to allow the next generation of Turkmen citizens to find jobs.

Despite this wealth, affluence has not trickled down enough to the general population. Rural areas remain notably poor and underdeveloped. The state budget provides funds to subsidize citizens’ home heating, gasoline, electricity, water, flour and salt. However, people in rural areas do not have guaranteed access to clean drinking water and electricity outages are not unusual.

Although Turkmenistan does not participate in global assessments such as PISA or TIMSS, the quality of education and its alignment to the present and future needs of the economy are questionable. Education transformation under the first president of Turkmenistan led to decreasing educational provision on all levels. Relatively recently the Turkmen government has made an attempt to reverse this negative trend. The Turkmenistan President’s Decree on the “Improvement of the Education System in Turkmenistan” (2013) and the “Concept of Transition to 12-year General Secondary Education in Turkmenistan” were adopted, which aim at radical reforms in the education sector. These reforms are reaching a great number of the population. They include costly projects, ranging from introduction of internet access to building new campuses for HEIs that are made possible by the government’s access to energy wealth.
The challenge of modernization is significant, particularly in higher education. Turkmenistan’s population is extremely young with 46 percent under age 24 and 20 percent between ages 15 and 24. This demographic situation has implications for all social systems, especially education. Taking in just over 7,000 first year students in the 2014/2015 academic year, HEIs are only able to accommodate around 7 percent of the 100,000 annual graduates. There are approximately 25,600 students currently enrolled in HEIs.

Turkmenistan as other post-Soviet republics attempted to build its education system according to national interests, which were identified by the government. According to the model developed by the first President of Turkmenistan, Niyazov, the country has had to emphasize transformation from the Soviet model to what he called a democratic model, which was declared in the first Constitution of independent Turkmenistan. However, according to this political model, the state should be the main driver and guarantor of this process (Horak 2005). Building the education system, which had to respond to the national interests identified by Niyazov, has driven many reforms in this country. In Turkmenistan, the state plays a major role in the transformation of the economic, social and political institutions including secondary and higher education systems.

The purpose of this chapter is to provide an analysis of the changes that took place in higher education and its institutional landscape in Turkmenistan from the late Soviet years to the present day. Most prominent in this examination will be the differences between Soviet and post-Soviet Turkmen higher education institutions (HEIs) as well as the salient characteristics of reform during the first presidency of Saparmurat Niyazow (1990–2006) and that of the second president, Gurbanguly Berdimuhamedow (2007–present).

This chapter starts with an overview of the Soviet era education and continues with the analysis of two periods of independence (1991–2007) and 2007 to the present day.

**Soviet Era Education**

Overall it was the Soviet state rather than any independent entities that modernized education in Turkmenistan (also known by its Russian name “Turkmenia”), which was established as part of the 1924 delimitation of Central Asia. Though reliant on Russian language, the Soviet higher education system was free, secular and available to all. In the final years of the Soviet Union, before Turkmenistan gained independence on 27 October...
1991, adult literacy approached 99 percent and education was universal. When the Turkmen Soviet Socialist Republic did become independent Turkmenistan, the education system was “Soviet.” Textbooks still featured works of the Bolshevik leader Lenin, and HEIs continued to rely on Russian language vocabulary for technical, scientific and medical terminology.

Prior to 1917, there were no universities in the region that became Turkmenistan. Turkmens went to Ufa, Bukhara, Istanbul and sometimes St. Petersburg for higher education. The Soviet administration developed the higher educational system in the Turkmen SSR as part of the Union-wide infrastructure designed for mass tertiary education.

By the end of the Soviet era, there were 9 higher education institutions (Table 15.1) and 41,800 students, with 8,000 of those at the Turkmen State University alone. Most of those institutions (8) were located in the capital, the city of Ashgabat, enrolling 31,000 students (1988). There was one regional pedagogical institution located in the city of Chärjew (currently Turkmenabat). Additionally, established in 1931, the Ashgabat Pedagogical Institute became known as the Turkmen State University named after the Russian writer Maxim Gorky in 1950.

It is important to note that number of students enrolled in higher education institutions in Turkmen SSR was the lowest: number of students per 10,000 equaled 112 in the republic versus 174 on average in the USSR, while the competition at entrance examinations was among the highest: 301 students per 100 places (the average in the USSR was 192). Apparently, the social aspirations of the population to get higher education were much higher than the opportunities created within the republic. It is worth noting that during the Soviet period, Turkmenistan achieved relatively high indicators in terms of gender parity: 44 percent of overall numbers of students were female as of 1988. Two tables below show the institutional landscape of higher education in Turkmenistan where the

| Table. 15.1 Number of higher education institutions in Turkmenistan during 1940–1990 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 | 1940 | 1950 | 1960 | 1970 | 1980 | 1985 | 1988 | 1990a          |
| Number of HEIs  | 5    | 6    | 4    | 5    | 7    | 9    | 9    | 9              |
| Number of students, thousands | 3 | 6,6 | 13,1 | 29,1 | 35,8 | 38,8 | 40,2 | 41,8            |

Narodnoe khozyaistvo SSSR v 1990 godu. Moscow: Finansy i statistika, 1991
Source: Narodnoe obrazovanie i kultura v SSSR 1989, Moscow: Financy i statistika)
majority of HEIs were specialized institutions. At the same time their composition reflected the main manpower needs of the republic and needs of maintaining Turkmen language and culture (Table 15.2).

However, as in some other Soviet Union republics, the pedagogical institutions in Turkmenistan enrolled relatively large numbers of students: two (2) pedagogical higher education institutions enrolled 25 percent of the total number of students (Table 15.3).

**Table 15.2  Distribution of higher education institutions by sector (1988)**

| HE by sector, 1988 | Number of HEIs | Number of students, thousands |
|-------------------|----------------|------------------------------|
| Industry and construction | 1              | 6.0                          |
| Transportation and communication | 0              | 0                            |
| Agriculture       | 1              | 5.8                          |
| Economics and law | 1              | 3.5                          |
| Education         | 3              | 18.3                         |
| Incl. Pedagogical HEIs | (2)           | (10.2)                       |
| Healthcare, physical education and sport | 2              | 5.3                          |
| Art and cinema    | 1              | 6.6                          |

Source: Narodnoe obrazovanie i kultura v SSSR 1989, Moscow: Financy i statistika

The first post-independence years were a period of new state building under the leadership of President Niyazow. According to Niyazow, a new democratic society could appear only through the state taking responsibilities for the well-being of the nation, which led to the total control of overall economic, social and political life of the country (Horak 2005). Post-independence reform of education was intimately tied to language and alphabet reform (Clement 2008). Encouraged by Gorbachev’s reforms, the Turkmen SSR adopted the law “On Language” on 24 May 1990. Announcing, “Turkmen is the state language of Turkmenistan,” this law made Turkmen the official language and removed Russian’s official status. From 1 September 1998 the main language of instruction throughout Turkmenistan became Turkmen. To underscore this, an exam in the Turkmen language—with both written and oral parts—became a mandatory part of the entrance exam for universities and institutes (Meredova 2013). In 1993, President Niyazov announced that Turkmenistan would, over a 3-year period, adopt the Latin-based “New Turkmen National Alphabet” in place of the Cyrillic-based one (Soyegow and Rejepow 1993).
In the early 1990s, policy on education was laid out in Niyazow’s 1993 program “Bilim” (Education) and corresponding law. This policy is unique for the beginning of twenty-first century. It manifested a radical reform that contradicted pedagogical norms. For example, the length of secondary education in Turkmenistan was reduced from 10 to 9 years.

Curriculum reform in all levels of education was also radical. From the first grade of school education to the last year of university education the core of the curriculum was President Niyazow’s Ruhnama, a two-volume work combining history, philosophy and ideology. He wrote this text to instruct Turkmen in their moral, spiritual and political lives. The books contained President Niyazow’s personal version of Turkmen folk history, spiritual guidance as well as his own autobiography. Courses on Ruhnama

Table 15.3 Classification of Soviet HEIs (1988)

| #  | Name                                                   | Year | Location        | Profile                  | # of students |
|----|--------------------------------------------------------|------|-----------------|--------------------------|--------------|
| 1. | Turkmen State University named after M. Gorky (now—TSU named after Magtumguly) | 1931 | Ashgabat        | Comprehensive university | 8100         |
| 2. | Turkmen State Medical Institute                        | 1931 | Ashgabat        | Medicine                 | 5300         |
| 3. | Turkmen Institute of Physical Culture                  | 1981 | Ashgabat        | Physical/sport education | 5800         |
| 4. | Turkmen Agricultural Institute                         | 1930 | Ashgabat        | Agriculture              | 5800         |
| 5. | Turkmen Institute of National Economy                  | 1980 | Ashgabat        | Economy fields           | 3500         |
| 6. | Turkmen Polytechnic Institute                          | 1963 | Ashgabat        | Technical and Engineering| 6000         |
| 7. | Turkmen State Pedagogical Institute                   | 1950 | Chardjew (current Turkmenabat) | Pedagogical           | 10,200       |
| 8. | Turkmen State Institute of Russian Language and Literature | 1984 | Ashgabat        | Pedagogical              |              |
| 9. | Turkmen State Institute of Culture                     | 1972 | Ashgabat        | Culture/arts             | 6600         |
replaced fully or partially such courses as History, Social Studies, Philosophy and Geography. Students memorized passages from it, wrote essays on the history it recorded and lived their lives according to *Ruhnama’s* moral guidelines. Learning became severely limited when study of *Ruhnama* was combined with the intense cult of personality surrounding Niyazow, which required students to participate in frequent public festivals, sing the praises of the president in their school work and take exams on his writings. Niyazow labeled this period the “Golden Era” and the students of the time the “Golden Generation.” However, local teachers referred to their students as the “Lost Generation,” witnessing the decline of education (Ahn and Jensen 2016; Clement 2004). Many teachers and university professors lost their jobs. Niyazow’s language policies caused non-Turkmen specialists to leave the country. This was one way that Turkmenistan used education for nation-building.

The structure of the tertiary education sector was strongly affected by this policy. The length of study in vocational schools was also reduced from 3 years to 1 year; most vocational schools were reprogrammed into 1-year agricultural schools, which provided only certificates after graduation. The study term in higher education was also reduced from 5 years to 2 years. In addition, in 1995 the evening and correspondence learning in higher education was totally dismissed. The Academy of Science and all research institutes under the Academy were also closed blocking any postgraduate studies such as *aspirantura*.

One could expect that such drastic reduction of the number of years to study might lead to greater access to higher education. It was not the case. The access to higher education has become very restrictive because the enrollment to higher education institutions required at least 2 years of practical experience before entering institutes and universities, let alone becoming very competitive. This system has also reproduced inequality in access to higher education because most poor families could not afford paying private tutors to prepare them for higher education as the quality of secondary higher education spiraled downward.

In 2003, the Cabinet of Ministers announced that in order to gain practical experience university students would be required to obtain 2-years’ work experience in their selected area of study before they could graduate. Thus, students who wished to pursue higher education were expected to find an internship in a country where unemployment was estimated to be between 40 percent in urban areas and 60 percent in rural areas. When the Ministry of Education announced this program, urban youth lined up at state administration offices while rural students sought
work in areas connected to wheat or cotton in the hope of later entering the Agricultural University. Students studying at the Medical Institute found themselves mopping floors in hospitals (Clement 2004). A fundamental problem with the program was that the state provided banks, hospitals, schools and businesses with little guidance as to how to mentor these young people. An example of this was the cohort assigned to the banks, which was supposed to be engaged in daily bank activities, learning managerial skills. However, many reported that they were assigned simple tasks such as filing or running errands (Clement 2004). The general conditions around the country hampered the feasibility of even marginal success when high unemployment was keeping qualified individuals from obtaining work. Locals labeled this the “two-plus-two program,” referring to the fact that the 2 years of internship left students of 4-year programs with only 2 years of formal learning (there are some exceptions, such as Architecture, which are 5-year programs). The students received their stipends from the government, and criteria for the program were met on paper, but in reality it suffered from weakness in implementation.

However, under President Niyazow the number of HEIs increased from 9 to 16. The isolated country needed to ensure supply of trained graduates in the areas where Turkmenistan did not have higher education programs in the Soviet times. Some new universities and specialized institutes were opened including Turkmen State Institute of Transport and Communications, International Turkmen-Turkish University, Turkmen State Academy of Arts, the National Institute of Sport and Tourism of Turkmenistan, and the National State Institute of Manuscripts.

The governance of higher education in Turkmenistan is centralized; the higher education institutions are regulated and governed by the Cabinet of Ministers of Turkmenistan. The Cabinet has a wide array of responsibilities including developing and implementing state policy in the field of education. It also ensures that the system of education is in line with the constitution of Turkmenistan, the legal provisions governing education and international treaties. The Cabinet of Ministers also develops all strategies and state education standards; coordinates the activities of education institutions; participates in setting the budget for education; develops quality assurance models and sets requirements for admission to higher education institutions.

The implemented reforms have made a significant impact on the general indicators of higher education. Although the number of higher educa-
Table 15.4  Number of higher education institutions and number of students from 2000 to 2011

|                | 2000 | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|------|------|------|------|------|------|
| Number of HEIs | 16   | 17   | 18   | 19   | 21   | 23   |
| Number of students, thousands | 16.6 | 17   | 20.7 | 22.1 | 23.7 | 25.6 |

Source: Turkmenistan Statistical Yearbook 2012

Fig. 15.1  Higher education participation rate 1991–2011, in % (age cohort 20–24) (Sources: http://www.cisstat.com)

Institutions doubled from 1991 to 2000 and the number of students has significantly declined. For instance, in 1990 the number of students was 41,800, but in 2000 the number of students declined to 17,000 (Table 15.4).

Consequently, the participation rate in higher education for youth aged from 20 to 24 years has declined by almost 75 percent (Fig. 15.1).

From 2007 to the Present: From Isolation to Participation?

The political and policy agenda in Turkmenistan has changed with the new (second) President, Gurbanguly Berdimuhamedow. Since then the education sector has been a focus for reorganization and development. The president has repeatedly declared education reform to be one of his top priorities. After his election to the presidency in February 2007, Berdimuhamedow launched a major reform of Turkmenistan’s education
system starting with his 15 February 2007 decree “On improvement of the education system in Turkmenistan.” This decree manifested a departure from Niyazow’s reforms. With that decree the school system was restructured from 9 to 10 years, higher educational institutions to 5 years, and medical and some art institutes to 6 years. He also raised the salaries of those in the education sector while decreasing the number of hours worked, reducing class sizes and increasing access to computers. On 30 March 2007, he instructed that the salaries of Turkmenistan’s teachers increase by 40 percent. Starting 1 September 2007 a presidential decree reduced the annual work hours from 1250 to 850 for teachers, instructors and professors. Of that time, 490 hours are contact hours (14 hours per week), the rest is time for preparation.

Perhaps President Berdimuhamedow’s most important initiative in education was his 1 March 2013 extension of secondary schooling to 12 years. This initiative has had ramifications for higher education as well since it has meant that there are a greater number of students graduating with the credentials that will allow them to pursue higher education both domestically and abroad.

Since 2008, President Berdimuhamedow has emphasized the role of higher education in providing “abundant inflow of highly qualified specialists in a few years.” The new Law on Education adopted in 2009, and modified in 2013, has made a significant change in higher education policies. It allowed the introduction of tuition fees in educational sector including higher education; it also regulated issues regarding quality assurance. The International University of Humanities and Development (IUHD), which was opened in 2014, has become a pilot university for introduction of tuition fees. The first university to charge tuition was the International Turkmen-Turkish University. Recently opened (2016), the University of Engineering Technologies of Turkmenistan, named after Oguz Khan, has been also introduced as a pilot university. There is no public information about the amount of tuition; however, according to some mass media resources it varies from $1,300 to $2,000 dollars per academic year. Legally public HEIs have the right to charge tuition fees in cases when (a) students whose education is not being funded from the state budget, (b) students admitted to part-time, evening or correspondence courses and (c) students admitted to the second cycle of higher education (TEMPUS 2012). The minimum annual tuition fee will amount to 3,700 manats ($1,300), average, 4,200 manats ($1,470) and maximum, 4,700 manats ($1,645). The amount of the fees will be determined by the higher educational establishment.
The other significant peculiarity of the Turkmen education system is that although the Law on Education allows private educational organizations all higher education institutions are still the public ones.

Since 2007, Turkmenistan opened four new universities including the Institute of International Relations under the Ministry of Foreign Affairs of Turkmenistan (2008), the International University of Oil and Gas (2012), the International University of Humanities and Development (2014), and most recently the University of Engineering Technologies named after Oguz Khan (2016). In the meantime, the government closed the Branch of the Russian Oil and Gas University (2012) and International Turkmen–Turkish University (2016).

One of President Berdimuhamedow’s earliest promises was to reduce the status of Ruhnama. Between 2008 and 2011, schools and universities phased out lessons based on Ruhnama. Entrance exams on based on Ruhnama were ended in August 2014 by declaration of the president. However, the new president’s books have replaced the writings of President Niyazow, and Berdimuhamedow’s ideological statements now fill the public sphere.11

In 2014, a new university opened that is somewhat experimental for Turkmenistan: the International University of Humanities and Development (IUHD). The experimental aspects are that it is organized according to the Bologna model and the language of instruction is English. Thus, the university has been hiring faculty who have obtained their degrees abroad as well as foreign faculty (in spring 2016 there were two foreign professors working there). Other HEIs do not hire foreign faculty, but some, such as the International Oil and Gas University and the Turkmen Institute of Economics and Public Administration, do invite guest lecturers from abroad, in alignment with the Erasmus Program.12 The philosophy behind IUHD’s founding was to create a Turkmen HEI that would meet international standards and compete with the internationally recognized Nazarbayev University in Kazakhstan. It is intended to become “a national brand for academic excellence.”13 With over 500 students, it is operating below its capacity for 2500, but plans to take in more students each year. IUHD will train specialists in 14 areas of study: philosophy, sociology, international public law, private law, international relations, journalism, international economy, management, finances, insurance, commerce and computer programming, information technology and communication technologies. This university’s education is based on a 5-year program, with the first year devoted to language learning and practice. With the
establishment of IUHD we see a new form of education in Turkmenistan. The new university represents institutional differentiation of a new sort: international criteria, use of ECTS (European Credit Transfer and Accumulation System) and the Bologna model. The 2013 Law on Education has also introduced a two-tier system such as Bachelor and Master degrees.

Turkmenistan is not a signatory to the Bologna Process. However, there are long-term plans to bring HEIs in line with the Bologna model. This is significant as officially neutral Turkmenistan does not often join coalitions or unions. It signals that the government is growing more comfortable with the importation of outside ideas. It is not clear how it will affect the higher education system and the institutional landscape in the country.

In 2014, the state began to recognize foreign diplomas earned after 1993, which in 2004 Niyazow had declared invalid in an effort to discourage students from studying abroad. In 2012, Turkmenistan’s Ministry of Education estimated that there were 42,000 citizens studying abroad in foreign universities. There were 13,000 Turkmenistani students in Ukraine; 10,000 in Belarus; while Russia, Turkey and Malaysia also each were taking in a great many. The government of Turkmenistan paid tuition for only 2,000 of these individuals, the rest were privately funded. In addition, there is some demand for Russian language education within Turkmenistan itself. To help satisfy this desire, Russia’s Oil and Gas University opened a branch in Ashgabat in 2008 (closed later). Except for at this university, Russian is no longer a language of instruction at HEIs, it is taught only in Russian language classes as a foreign language.

In spring 2009, when there were 4,275 students entering their first year at Turkmenistan’s HEIs and 2,700 leaving to study abroad, President Berdimuhamedow referenced the country’s reliance on graduates from foreign universities and the knowledge they bring home, saying that Turkmenistan would continue the practice of sending students abroad “until the country gets fully staffed with specialists with high qualifications.” Citizens of Turkmenistan holding a foreign degree may have their diploma recognized with a certificate after successful completion of two exams: one in Social Studies and one in the applicant’s field of specialization. These exams were offered in the Turkmen language.

In terms of gender policies Turkmenistan’s Constitution and laws declare equality between women and men and guarantee equal rights to education. However, the available statistics of 2008/2009 shows that the proportion
of women in higher education is decreasing annually. For example, as of 2008/2009 academic year, only 35 percent of total students were female which is 2 percent lesser than in 2006/2007 academic year.

**Current Institutional Landscape in Higher Education**

Turkmenistan represents unequal regional distribution of higher education. All institutions, except three, are located in the capital of the country, Ashgabat. For instance, Turkmen National University named after Magumguly, Turkmen State Medical University, Turkmen Agricultural University, International University of Oil and Gas, the newest University of Engineering Technologies of Turkmenistan, the International University of Humanities and Development, the Turkmen State Institute of Culture, the Turkmen State Institute of Transport and Communication, the National Institute of Sport and Tourism of Turkmenistan, the Turkmen National Institute of World Languages, the Institute of International Relations under the Ministry of Foreign Affairs, Turkmen State Institute of Finance, Turkmen State Institute of Architecture and Construction as well as Turkmen National Conservatory and Turkmen Academy of Arts. The three regional higher education institutions include Turkmen State Pedagogical Institute in Turkmenabad, Turkmen State Institute of Energy in Mary city and Turkmen Agricultural Institute in Daşoguz.

The typology, which is proposed below, represents four types of HEIs (see Table 15.5) and takes into account criteria with regard to educational activities and majors and specialties they include. The data were gathered from available internet information on number of HEIs, their size and major and specializations they represent. It is difficult to gather information on number of students, research activities and involvement in international projects of these HEIs. The Turkmen State University named after Magumguly (former Maksim Gorky) still holds the status of leading university and remains the flagship in Turkmenistan. The second type includes large state specialized universities such as Agricultural and Medical, which were specialized institutes during Soviet times, as well as the new University of Engineering Technologies named after Oguz Khan. The third category represents two international universities, International University of Humanities and Development and International University of Oil and Gas. While we were working on this chapter one international university (Turkish–Turkmen University) was
closed by the decree of President Berdimuhamedow, while the proclaimed International University of Humanities and Development was launched under the guise it would play a lead role in preparing highly qualified graduates according to international standards, using English as the instructional language. It is composed of six faculties and 13 departments and has programs in philosophy, sociology, international relations, journalism, economic, finances and computer science. The IUHD is also the first university preparing students according to the two-tier education system with Bachelor and Master degrees, theoretically

| Type                                      | Number/location | Example                                                                 | Educational profile                        |
|-------------------------------------------|-----------------|-------------------------------------------------------------------------|--------------------------------------------|
| 1. National flagship university           | 1/Ashgabat      | Turkmen State University                                                | The largest university                     |
| 2. State large specialized universities    | 3/Ashgabat      | Agricultural and medical Universities; University of Engineering Technologies named after Oguz Khan | Multidisciplinary large- and medium-size universities |
| 3. International universities             | 2/Ashgabat      | International University of Oil and Gas; International University of Humanities and Development | International university                   |
| 4. Small and specialized institutes in the capital | 15/Ashgabat    | Turkmen Institute of Economics and Management; Institute of World Languages; Institute Architecture and Construction | Small- and medium-size HEI               |
| 5. Regional specialized institutes        | 3/regional centers | Seyitnazar Seydi Turkmen State Pedagogical Institute (Turkmenabat city) Turkmen State Power Engineering Institute (Mary city) Turkmen State Agricultural Institute (Daşoguz city) | Small- and medium-size HEI               |
aligned with requirements of the Bologna Process. The International University of Oil and Gas was opened due to Turkmenistan’s specific need for specialists in the oil and gas industries.

The fourth type of HEIs represents small and specialized institutes, which prepare students in narrow areas for specific jobs. Some of them include institutes from the Soviet period, which were renamed such as the National Institute of Sport and Tourism of Turkmenistan (former Institute of Physical Culture) and Turkmen National Institute of World Languages (former Institute of Russian Language and Literature). Other institutes include new ones such as Turkmen State Institute of Transport and Communication, Turkmen State Institute of Finance, Turkmen State Institute of Architecture and Construction, Turkmen National Conservatory, Turkmen Academy of Arts and the Institute of International Relations under the MFA. This institutional type also includes five military institutes located in the capital city of Ashgabat. Finally the last category includes regional institutions. One of these institutes inherited from the Soviet time is the pedagogical institute named after Seyitnazar Seydi and two other new institutions, Pedagogical Institutions in Mary and Daşoguz city.

The research and development in Turkmenistan has been revived and coordinated by both higher education institutions and the Academy of Science, where the Academy of Science still carries the large part of the research and is still responsible for training of doctoral students. At the same time, although the university programs were extended in accordance with international standards, it became clear that the dismissal of former researchers and/or teachers from the universities in the past decade has created a gap in qualified staff from which the country has not been able to recover.

**Conclusion**

Turkmenistan’s higher education has undergone significant changes since the Soviet era. These changes were driven mainly by state policies under total centralization of the system. The political leaders were main drivers of the transformations. Two periods of presidency in Turkmenistan have also played a major role in its current institutional landscape. Turkmenistan had only 9 higher education institutions by the end of the Soviet times and now the country has 24 higher education institutions to have a full spectrum of higher education programs in the country through the specialized universities. For the main sector of the economy—oil and
gas—Turkmenistan’s government even allowed the establishment of an international university. The challenge of the territorial development also forced the government to establish two new regional universities.

The demand of higher education is very high—five applicants for one place in 2014. At the same time the wealth of the country and total control allow the government to ignore this growing demand and to prohibit the private higher education sector to grow.

For almost three decades of independence Turkmenistan’s higher education has undergone reforms and transformations, and the dynamics of those changes were not smooth. Compared to other post-Soviet countries where the number of higher education institutions and number of students have raised significantly, Turkmenistan did not have such rapid growth. During the first years of independence, the number of students decreased considerably. However, after the second phase and arrival of President Berdimuhamedow, the education system started to see some growth in terms of student enrollments, opening new universities and emphasis on internationalization. Turkmenistan was able to open more specialized institutes and relatively expand its regional higher education. However, Turkmenistan higher education does not have any private higher education institutions and the system remains under the tight control of the government.

NOTES

1. World Bank (2015). GDP data per country
2. Turkmenistan’s Constitution, 1992, Section I, Article 13
3. “2004 Country Report on Human Rights Practices in Turkmenistan,” Bureau of Democracy, Human Rights, and Labor, U.S. Department of State, 28 February 2005. More recent estimates remain high, and the BBC reports 50% of urbanites unemployed with rural areas suffering even higher rates; see BBC Monitoring Central Asia. 26 February 2012.
4. Until 2005 it was typical for school children to work in the cotton fields each fall. But after the 1 February 2005 adoption of the law “On guarantees of the rights of youth to work” only rural areas still saw children working in the fields. See Neitrал’nyi Turkmenistan, No. 28, 2 February 2005.
5. http://www.turkmenistan.ru/en/node/7038
6. http://www.turkmenistan.ru/en/node/6072
7. The typical academic year is 34 weeks long, although HEIs with international status, such as International Turkmen-Turkish University, work on a 35-week academic calendar. Recently there has been discussion at some
universities of reducing the number of contact hours to 12–13 per week, but that has yet to be agreed upon.

8. http://www.turkmenistan.ru/en/articles/17173.html
9. http://www.turkmenistan.ru/en/print/node/7467
10. http://chono-tm.org/en/2014/05/tuition-fees-to-be-introduced-in-turkmen-universities/
11. http://rferl.org/articleprintview/25237344.html
12. http://Turkmenistan.gov.tm/_eng?id=4031
13. IUHD brochure
14. According to Presidential Decree 13430, issued 9 January 2014, only diplomas earned through full-time study will be acknowledged in educational establishments. Degrees earned through part-time study, at HEIs or secondary vocational educational establishments, will not be recognized. This is problematic for thousands of students studying abroad as well as via correspondence.
15. http://chrono-tm.org/en/2015/02/turkmenistan-resumes-validation-of-foreign-diplomas/
16. www.thediplomat.com/2015/07/in-turkmenistan-border-woes-trump-education/
17. http://www.turkmenistan.ru/en/node/8188
18. http://www.chrono-tm.org/en/2014/03/turkmenistan-to-impose-severe-restrictions-on-foreign-diplomas/
19. http://www.infoabad.com/obrazovanie-nauka-i-tehnika/v-ashhabade-otkrylsja-mezhdunarodnyi-universitet-gumanitarnyh-nauk-i-razvitija.html

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Victoria Clement is a research scholar at the Woodrow Wilson International Center for Scholars in Washington, DC. Her work explores the intersection of political and social power in modern Central Asia. Her book on the history of modern language and education reform, entitled Learning to Become Turkmen: Literacy, Language, and Power, 1914–2014, will be published by the University of Pittsburgh Press. Dr. Clement’s research has been published in the International Journal of the Sociology of Language, the edited volumes Daily Life in Central Asia (2007) and Muslim World in Transition (2007) as well as several encyclopedias and two Central Asian publications: Türkmen Dili (2003) and Owadan (1997). She has lived in Turkmenistan, Russia and Turkey and works with primary sources in Turkmen, Turkish and Russian languages.

Zumrad Kataeva is a postdoctoral research fellow at the Institute of Education of the National Research University Higher School of Economics, Moscow, Russia. She obtained her kandidat nauk degree in Tajikistan and her PhD at the
University of Kentucky, USA. Dr. Kataeva is a recipient of the Doctoral Fellowship Program of the Open Society Foundation. She has also served as a consultant for the World Bank, UNDP and UNICEF. Dr. Kataeva’s research interests focus upon various aspects of higher education transformation in post-Soviet countries including academic profession and faculty life, gender and globalization and higher education.

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