EXECUTIVE SUMMARY

Kazakhstan is a country the size of Western Europe, with a population of over 15 million. This population is quite well educated, a positive legacy from the former USSR; other inheritances are less positive. Great efforts have been made in recent years to reform Kazakhstan's education system to meet the needs of a modern competitive economy. This review considers how far these efforts have succeeded, and what more still needs to be done, in the higher or tertiary education sphere.

The report, therefore, focuses on education at the stage – or level – beyond secondary, including higher professional (vocational) education, but comments on other aspects, notably secondary general and vocational education, where it is necessary and relevant to do so.

The report draws upon a background report and other documentation provided by the Kazakh authorities, as well as the review team’s visits and meetings with different stakeholders in Kazakhstan.

The report analyses the main challenges and makes a series of recommendations, structured around the following themes:

- System structure and labour market relevance
- Access and equity
- Financing
- Improving quality
- Governance and management
- Internationalisation
- Research, Development and Innovation

System structure and labour market relevance

- The higher education sector has recently expanded and diversified, but in the years to come, demographic and other changes will reduce the number of students leaving school and put pressure on the viability of at least some universities. Rationalisation of the higher education sector, when necessary, should be achieved by improving quality assurance – so that only deserving and well managed universities remain – and then allowing well informed students to choose the institutions likely to give them the best deal.

- Fuller, more objective, independent information and guidance should be provided during secondary education to help students make sensible further education and employment choices. Schools should deliver this with input from employers.

- A national curriculum should be developed for the 12th year that will equip school leavers in Kazakhstan with subject knowledge and skills comparable to those of 18-year-old school leavers in European countries.

- A new school leaving exam should be developed that enables school leavers to demonstrate the standards of knowledge and skills they have acquired.

- To meet employer demand for graduates with lower tertiary vocational qualifications, college provision should be expanded and new higher technical schools created.
A number of other steps should be taken to boost the status and attractiveness of college tertiary vocational education, including making colleges part of the higher education system.

To ensure that Kazakh qualifications at and above the level of the new school-leaving certificate are internationally recognised, and form a “ladder of qualifications” with clear progression routes up the ladder, a National Qualifications Framework should be developed, reflecting national circumstances, but capable of mapping onto the recently adopted European Qualifications Framework.

To enhance responsiveness to labour market needs, universities that are licensed and have passed institutional quality accreditation should be free to decide, without seeking MOES’ permission, what subjects/courses to offer, how many places to offer in each, and what syllabuses to teach, provided they have consulted the relevant employers, who agree on the need for the courses and will help design and quality assure them. Universities should be free to withdraw or modify courses if employer or student demand dries up.

Close relationships with and involvement of employers should be one of the criteria for institutional accreditation.

An independent statistical system should be used to establish graduates’ success in finding employment.

To enhance transparency, accredited universities should also be free to award their own degrees/diploma certificates. Those licensed, but not yet accredited, could have diplomas issued either by the MOES, or by an accredited institution prepared to quality assure and vouch for them.

Accredited universities, whether public or private, offering courses to meet employer endorsed labour market needs should have access to the necessary funding, including for up to date equipment and facilities. If private sources or sponsorship cannot be found, the state should make funds available.

**Access and equity**

To improve the independence, quality and security of the single unified higher education entry test:

In the immediate future, until introduction of the 12th year of schooling requires the reform of the present UNT, measures should be taken to ensure that the UNT is above corruption, and that its security is not compromised. This should improve opportunities for young people and their families and build public confidence in the education system.

In the medium term, the recommended new school leaving qualification should set the threshold for higher education entry; but to address access and equity issues, demonstrate learning potential and allow for finer distinctions between the pupils able enough to be eligible for higher education, the main basis for decisions on admission to particular institutions should be either a common national test of reasoning and learning potential similar to the SATs used in the United States, or an additional General Aptitude Test as in Georgia. This should be developed with international experts.

It is not recommended to return to the system whereby each university designed and administered its own admission procedures.

To assure equity of access and better quality of education for the less well off and for children in remote rural areas:

Incentives should be developed to attract better educated and highly motivated teachers to remote areas, including those who can teach higher grades to the depth needed to enter and succeed at university.

Provision of fast and reliable Internet access to all higher education institutions and their students should be reviewed and accelerated. Meanwhile, Kazakhstan could borrow from the experience of Russia in developing new generation learning and teacher training materials for delivery using ICT.
Better career information and guidance during secondary education, as recommended, would greatly improve the situation of pupils whose family backgrounds or geographical location make it difficult for them to make informed choices about their educational or labour market opportunities.

Individual universities should be encouraged to earmark more grants for disadvantaged students in their areas.

Mobility and flexibility should be encouraged by providing opportunities for students to change focus within their chosen discipline or to change institutions where appropriate.

The urban/rural access issue should be more fully explored through household surveys of incomes and living standards. If it is established that rural and poor children, especially from the poorer oblasts, are indeed at a disadvantage, special programmes could then be designed to target this group further, including remedial or UNT preparation courses.

The experience of Finland and Korea – countries that have scored highly in OECD PISA assessments and manage to combine excellent academic results with equitable treatment for all – should be studied to find lessons for Kazakhstan.

**Financing**

**Resource mobilisation**

- Kazakhstan needs to raise the proportion of public spending for education in GDP.
- To maximise the efficiency and equity impact of the voucher system, it would be desirable to increase the tertiary education budget, thereby reaching a greater share of the total student population. At least 20% of the national budget would be reasonable for the education budget, and within this, tertiary education could receive at least 15%.
- Funding for research needs also to increase. Most research funding should be allocated to research teams and projects on a competitive basis, with independent peer reviewing of research proposals.

**Resource allocation**

- It would be advisable to separate clearly the voucher and scholarship elements of the education grant, by establishing a distinct scholarship fund to attract students into study programmes of high national or regional priority.

**Resource utilisation**

- Public tertiary education institutions should be allowed to operate under the same financial management rules as private institutions, including receiving the amount corresponding to the education grants and other government subsidies in the form of a block grant that can be used flexibly within the context of sound financial management practices.
- Taxation regulations should be equal for all tertiary education institutions.
- All tertiary education institutions should manage their resources according to standard and transparent accounting practices, and prepare annual financial reports that would be audited independently.

**Equity considerations**

- There is a need to introduce provisions (collateral waiver, interest rate subsidy, etc.) to address the issue of affordability of the new commercial student loan scheme for the neediest students.
- The government of Kazakhstan may also want to consider setting up an income contingent student loan system. This could be more efficient and equitable than the new commercial scheme.
In order to ensure an equitable distribution of public resources at the tertiary education level, it is essential to put in place a reliable management information system to collect information on key personal and social characteristics of students (socio-economic origin, gender, rural/urban origin, ethnic origin, etc.) that would be used to analyse the benefits incidence of public spending and guide corrective policy measures.

Improving quality

• The government of Kazakhstan should take steps to decentralise existing quality control mechanisms and move towards a stakeholder based quality assurance culture.

• These steps should include phasing out the classifier of higher education courses and State Standards, and allowing individual HEIs to decide on the courses they will offer, and the contents and curricula for those courses, provided they have proved their competence to take those decisions by passing institutional accreditation.

• International experience suggests that, instead of the MOES or government agencies controlling quality, it is more effective to entrust quality assurance to an independent accrediting agency or agencies with the direct involvement of professional associations and/or employers. The National Accreditation Centre should become an independent agency responsible for accrediting HEIs that have met the criteria (institutional accreditation).

• The government’s role should become the strategic management and quality control of that independent agency.

• To minimise overlap and burdens on institutions, attestation should be phased out as unnecessary once institutional accreditation is established, and the remaining quality assurance mechanisms reviewed to rectify real and perceived duplication and avoid conflicting roles and goals.

• A sound institutional accountability and self-evaluation culture and process should be developed in higher education institutions, including new tools for institutional self-assessment which focus on outcomes and competences achieved, rather than inputs and processes. The government should provide incentives to encourage institutions.

• It is also important to further develop an independent capacity to gather, analyse and report data on the performance of higher education in Kazakhstan; to encourage the use of this information in the development of public policy and institutional decision making processes; and to report on the performance of HEIs and the higher education system through the media, the Internet and other means widely available to the public. The National Centre for Educational Quality Assessment, which does this job for the education system as a whole, should be made independent of the MOES. If the Centre does not have enough capacity to evaluate higher education in the necessary depth, a new independent body with that specific role should be set up.

• The review (recommended above) of remaining quality control mechanisms should look critically at whether standard national tests continue to be needed: at the end of the second year (which will, after introduction of the 12th year of schooling, become the first year) and at the end of degree courses. National tests are inconsistent with allowing accredited HEIs to decide course content and syllabuses for themselves, and could be inconsistent with the course outcomes sought by international or regional employers.

• To improve teaching and learning quality further, steps should be taken to ensure that academic staff should have fewer mandatory hours, are not overburdened with administrative compliance checking reports, have more time to prepare course materials and update their knowledge, and have more funded opportunities for professional development.

Governance and Management

• All HEIs that gain accreditation should be entitled to academic autonomy, and allowed to make their own decisions on introducing new undergraduate and postgraduate courses, on course content, on examinations, graduation standards and certain changes to entry standards.
To improve HEI governance and bring Kazakhstan in line with best practice in developed countries, all HEIs should be required to set up governing boards with majority external representation, in addition to their scientific or academic councils; and the governing boards should appoint rectors.

All HEIs should have the right to determine academic pay and conditions, manage their own budgets and introduce income generating ventures.

The MOES’ role in the management of HEIs, and controls over them, should be reduced to the minimum possible level.

**Internationalisation**

**Curriculum**

Higher education institutions in Kazakhstan need to place more emphasis on preparing globally minded, locally responsible, and internationally competitive students. The development of competences required by the knowledge economy should be given high priority by the government, the higher education institutions and by employers.

Academic staff of HEIs should have training and incentives to encourage them to find out about international developments in their subjects and to introduce international elements into their curricula.

Participation in the Bologna process should be seen as a unique opportunity to learn about the content of other countries’ higher education courses, and adapt courses in Kazakhstan HEIs to include international elements.

In addition, when curricula are updated, the opportunity should be taken to include an international dimension when appropriate.

**Second language**

Kazakhstan needs to raise English language competence among its higher education graduates. This should be done in addition to the current programmes aimed at providing language competencies in Russian and Kazakh. An internationally functional command of a second and third language should be emphasised, beginning in earlier levels of education so that only reinforcement is necessary at the higher education level.

**Student and academic staff mobility**

Kazakhstan could benefit by dramatically increasing the international mobility of students and academic staff. More outgoing and incoming students and professors could be highly instrumental in the internationalisation of HEIs, and would, in the long run, contribute to the improved competitiveness of the country.

It is advisable to increase funding for student and academic staff mobility, including the development of cost recovery mechanisms and the implementation of partnerships with employers and interested international organisations.

It is highly recommended to increase the number of international students and academic staff in higher education institutions in Kazakhstan. This requires more international dissemination of information about HEIs’ capabilities and offerings, as well as more reciprocal agreements, more matching funding programmes, more initiatives to support the hosting of top level professors and researchers from abroad and further development of HEIs’ administrative capacity to support international activity.

**The Bolashak Programme**

It is recommended that the Bolashak Scholarship Programme be enlarged and improved to maximise the efficiency of use of these limited resources, further linking the programme to
national and institutional priorities, and developing a mechanism to attract and provide appropriate opportunities to returning graduates.

- As regards the scope of support, more emphasis could be placed on graduate programmes than on undergraduate programmes.

**Building capacity**

- It is critical that Kazakhstan builds capacity at the system level to better address the need for internationalisation of higher education. The following specific steps are suggested:
  - A national clearinghouse for international higher education opportunities should be established, in order to foster the exchange and dissemination of information and to help institutions identify and develop international partnerships targeting the country’s strategic priorities in terms of areas of knowledge and regions. The current Centre for International Programs (CIP) could be well positioned to take on this role.
  - A national association or inter-institutional committee composed of international education officers should be created to share experiences, engage in professional development activities and further the development of international education as a profession.
  - Kazakhstan higher education should be more actively and visibly represented in relevant international fora, international higher education organisations and at international higher education fairs.
  - International collaborative partnerships among institutions should be fostered in order to offer high quality joint degree programmes targeting geographic and economic areas important to the country.
  - An open and transparent incentive programme should be established to provide encouragement and support for internationalisation activities at institutions.

**International higher education providers**

- A quality control mechanism should be established and enforced, to ensure that programmes offered by international providers of higher education are of appropriate quality and that foreign providers have to meet the same standards and conditions as national providers, in practice as well as in law.

**Research**

**At the national level**

- To achieve the goal of increasing the funding of research and technological development in Kazakhstan to 2% of GDP by the year 2012, while ensuring that the money is used cost effectively and that a fair share of the increase goes to HEIs, an implementation advisory group should be set up, with HEI representatives and international input, to advise the government.
- HEIs should be more involved in the development of science and innovation policy, including through participation in bodies advising government. This will help to strengthen research in universities, integrate research and teaching, and link research, innovation and educational policies.
- Special funding mechanisms should be introduced, to improve the material base, information resources and integration of research and teaching in HEIs. We recommend a new Fund to grant financing on a competitive basis for projects in government priority areas.
- A new competitive Fund is recommended to support development of the research potential of the HEIs. This Fund would provide mechanisms for financing the activities of research teams.
There should also be a new competitive funding mechanism to stimulate three-party collaboration between HEIs, research institutions and enterprises, and support the transfer of technologies and the commercialisation of research products.

Laws and regulations should be changed to reduce the current very high teaching load required of academic staff, and give them more time for research.

Mobility schemes should be developed to improve the quality, relevance and international orientation of research in HEIs. The schemes would be for both research students and academic staff. They might take the form of industrial internships for Master and PhD students, exchange of personnel between companies and HEIs, consulting services to local companies from HEI staff, and international exchanges.

To encourage individual researchers from all sectors to participate in applied research, technology transfer and the development of new products, their share in the profits from realised new products should be substantially increased and any legal obstacles to this removed.

To facilitate the commercialisation of research products, HEIs should be granted the right to establish spin-off companies. These companies will bring together HEIs, individual researchers and private capital in the development of new products.

The Committee for Supervision and Attestation should revise its requirements for higher scientific degrees and academic titles, to give more weight to the publication of scientific papers in reputed international journals.

The Bolashak Scholarship Programme should offer more of its places to science and technology students (including those studying for higher degrees) in areas identified as national priorities, including nuclear studies, space research and technology, biotechnology, nanotechnology, and oil and gas technologies.

At institutional level

HEIs should take account of research output, quality and publications in reputed international journals, when deciding which academic staff to promote.

HEIs should encourage their academic staff to participate in national and international competitions for research grants. Most of the funding should go to the research teams.

The Technoparks should extend their functions and offer services to researchers that would facilitate the transfer of technologies and commercialisation of research products.

In order to reduce the teaching load of the academic staff without increasing costs, HEIs may wish to introduce a modular structure of course delivery.

HEIs should make it a priority to dramatically improve information resources for both academic staff and students. They should subscribe to the most important Internet based information resources – databases such as IST Web of Knowledge and Scopus – as well as electronic versions of the leading journals in the different fields of knowledge. They should ensure that there are enough computers, with fast Internet access, to meet the study and research needs of all staff and students.

Publication Website: http://www.oecd.org/document/10/0,3343,en_2649_33723_38864842_1_1_1_1,00.html