

EVALUATION OF THE STATE PROGRAMME FOR TVET DEVELOPMENT IN AZERBAIJAN 2007-2012



The contents of this paper (unedited version) are the sole responsibility of the authors and do not necessarily reflect the views of the ETF or the EU institutions.

© European Training Foundation, 2014
Reproduction is authorised provided the source is acknowledged.

© All photos: ETF

PREFACE

The European Training Foundation (ETF) is an EU agency that helps transition and developing countries to harness the potential of their human capital through the reform of education, training and labour market systems in the context of the EU's external relations policy. The ETF is based in Turin, Italy, and has been operational since 1994.

This evaluation report and the respective research activities have been carried out by ETF staff in 2013 – immediately after the end of the State (Reform) Programme for vocational education and training (VET) (2007-2012). One might argue that a longer time horizon between end of the programme and its evaluation would have favoured more reliable evidence in terms of sustainability of results achieved. However, the constant and rapid progress in Azerbaijan's socio-economic development requires immediate and improved evidence for decisions to be taken in order to further improve the human capital development in the country to better meet the social, economic and technological challenges ahead.

The European Union (EU) currently analyses if more resources should be dedicated to the VET system development in the country – most of all fostering VET in the regions and integrated in regional development approaches. This was another reason for a comprehensive look at the Azerbaijani VET system and the results achieved so far by the State Programme.

Special thank goes to Namig Mammadov, Head of the VET department in the Ministry of Education (MoE), who is one of the spiritus rector of the previous State Programme, encouraging proactively as well the evaluation carried out by the ETF. This report would not be available without the precious work of Chinara Rasulova, who organised and managed relevant steps of the evaluation process sur place, including the revision of relevant documents, compiling statistical data, interpretation during field visits and the translation of documents. The database was processed by Eva Jansova (ETF), and Inna Dergunova (ETF) managed administrative aspects of the evaluation exercise and assisted in conducting interviews with stakeholders.

Finally, the ETF would like to thank all stakeholders and VET experts met in the country during seminars, conferences, interviews and in field visits carried out in May/June 2013. They are the authentic voices of Azerbaijan's VET system development. Without their contribution this evaluation report would not have been drafted in taking seriously into account the inputs of national experts.

Some experts expressed in discussions and during interviews a certain concern in reflecting critically on the current framework conditions and the delivery modes of the VET system. The ETF assured that all results or statements from the experts involved will be anonymously treated during the entire process of evaluation of the State Programme.

The views expressed in this report are those of the ETF senior experts and authors – Arjen Deij and Manfred Wallenborn – and are not intended as an official position of the ETF.

ABBREVIATIONS

DIOS	Development of improved occupational standards
ETF	European Training Foundation
EU	European Union
HE	Higher education
ICT	Information and communication technologies
IDP	Internally displaced person
ILO	International Labour Office
IVET	Initial vocational education and training (after ninth class)
MLSPP	Ministry of Labour and Social Protection of the Population
MoE	Ministry of Education
NCPC	National Competitiveness and Productivity Centre
NES	National Employment Service
NQF	National Qualifications Framework
RCMOL	Scientific Research and Training Centre of the Ministry of Labour
SMEs	Small and medium-sized enterprises
Tacis	EU Technical Assistance Programme for Commonwealth of Independent States
TVET	Technical and vocational education and training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VET	Vocational education and training
WDA	Workforce Development Agency

Contents

Preface	3
Abbreviations	4
1. Executive summary	6
2. Introduction	11
3. Methodologies for evaluation with a bifocal scope: looking at benchmarked results and the process of preparation and implementation	13
4. The reform process: strategic approach, societal context and implementation	15
4.1 The strategic relevance of the non-oil sector	15
4.2 The VET system in the socio-economic context	16
4.3 The implementation of the reform	18
4.4 Summary	22
5. Achievements of the state programme	23
5.1 The facilities of the VET system have improved	23
5.2 Governance of the VET system has improved, resulting in closer cooperation with enterprises and schools generating of additional income	26
5.3 The contents of VET has been brought in line with needs	27
5.4 Staff capacities have been updated and improved	29
5.5 VET has become more attractive and offers better opportunities	31
6. Recommendations for the future	33
6.1 More recommendations for all scenarios	34
6.2 Different scenarios for future VET system reform	40
6.3 Next steps	45
Appendix	46
Results of the questionnaire answered by the Azeri VET schools	46
School questionnaires – descriptive statistical results	46
Statistical analysis of the VET school questionnaire	50
Questionnaire for VET schools involved in the State Programme or in other rehabilitation measures	56
List of people interviewed during evaluation missions (21-31 May & 10-18 June 2013)	63
Timeline of the ex-post evaluation with focus on results and processes	65
References	66
References referring directly to the State Programme	66
References (literature and journals)	70

1. EXECUTIVE SUMMARY

This is the report of the evaluation of the State programme for the development of technical and vocational education in the Republic of Azerbaijan (2007-2012) implemented by the ETF under request of the Ministry of Education.

Prior to the 2007 reform, the VET system was in a disastrous shape and the overall and most important achievement of the reform is, that VET is back on the agenda of policy discussions. This includes the public awareness, that VET is a relevant part of the entire education system. During the field visits many VET schools demonstrated the substantial improvements launched by the VET reform in terms of better educational infrastructure – comprising buildings, equipment of workshops, textbooks, teacher training, new curricula and, in some cases, emerging but successful education and business relations on the local level. Starting from the structure of the State Programme, the results for each strand of the State Programme have been evaluated.

As a result of the improvements made through the State Programme, there are now very diverse conditions for vocational schools, in total 108. The 28 restructured schools (of which 20 restructured through the State Programme) make a very positive impression in contrast to the rest. Decent conditions in restructured schools have improved the image of VET and have made VET again an option of choice for many families. The restructured VET schools are more attractive for learners and parents and computers are the most common type of equipment delivered. They all have seen the numbers of applicants increase. However, this does not mean that only restructured schools became more attractive as more than half the schools have reported an increase in applicants for VET.

In terms of updating the staff capacities of the VET schools, the State Programme has only been partially successful. In all schools staff participated in the periodical compulsory staff training provided by the Azerbaijan Teachers' Institute, and short courses were organised to introduce new curricula by the Centre for VET Development and the Ministry, but overall the majority of the staff, including managers, does not seem to have profited from any staff training. Many teachers have not been in companies for quite some time and it is important that they become familiar with modern production processes. The current system of supply driven courses by the Azerbaijan Teachers' Institute does not really meet the specificities of VET and it is unlikely that a move towards a modular based retraining system that is outsourced to different providers will actually change that.

According to the State Programme more school autonomy was important to foster closer links with enterprises and to generate additional income for the school and spent the funding more effectively. More autonomy would come with more responsibility and more accountability. Although most schools feel that they are more autonomous than before the State Programme, experimentation with financial autonomy was blocked in the implementation of the State Programme. There are many examples of closer cooperation with enterprises, in particular with larger companies, but these have been developed through the VET department in the MoE, rather than through local cooperation.

There are many initiatives for the anticipation of skill needs performed by different public bodies but without coordination and systematic inter institutional cooperation. The Ministry of Economic Development with support of the Research Institute for Economic Reforms is conducting macro and micro economic forecasting, The State Statistics Committee of the Republic of Azerbaijan is conducting quarterly household and labour force surveys, and annual surveys (sampling) of the turnover in the workforce. The public employment service is developing territorial employment plans, and short term one year projections. The Ministry of Labour has started to develop occupational standards for priority occupations in seven sectors, together with representatives from companies. It plans to establish a Workforce Development Agency to develop and

update occupational standards, and to make them available for the training of adults. The Scientific Research Institute and Training Centre of the Ministry of Labour is developing and testing skills anticipation models.

The MoE has piloted a qualitative analysis of regional skills development needs, in order to inform future decisions for VET system development. This really helped to show the importance of a more regional approach. After the study all VET schools were instructed to collect and analyse more labour market information in order to get a better understanding of the labour market dynamics. These included the regional development programmes, public employment offices data about employment (qualitative and quantitative), data about economic entities in the region, data about opportunities to continue education, and last but not least, data about what happened to their own graduates. It is important to move from these initiatives to a system for the anticipation of skill needs that brings together the existing labour market analysis of all the relevant stakeholders in order to improve the quality of the information through cross-referencing. The designated Workforce Development Agency under the Ministry of Labour and Social Protection could take the lead for this.

This information can also inform the development of occupational standards. These occupational standards are seen as key to defining the needs of the labour market for specific occupations. The Ministry of Labour with support of the World Bank has been developing 200 occupational standards in the framework of the project Development of Improved Occupational Standards (DIOS). Before this project started, the MoE developed new profiles based on pilot occupational standards with the support of international projects.

An inter-ministerial committee was established by the MoE to develop a national qualifications framework in order to improve the value of qualifications by making them international comparable, and by linking to the Qualifications Framework (QF) for the European Higher Education Area and the European Qualifications Framework (EQF). The new education act was at the basis of the National Qualifications Framework (NQF), as were the development of occupational standards, curriculum reforms in general education, and developments in VET, higher education and adult learning. The development of the NQF received expert support from the ETF and the World Bank, while the Council of Europe commented on the higher education part of the draft NQF decree. A draft degree is now ready that needs to be adopted.

There is overwhelming evidence that the State Programme has helped to put VET is back on the agenda. The State Programme considered from the very first moment the human capital development needs of the country. But the restructuring of schools was mainly concentrated in the biggest urban centres (Baku, Ganja and Sumgait). Beyond booming Baku regions require restructured VET institutions in order to cope with present and future human capital demand. The same refers to capacity building which has been part of the reform design, independently from implementation and current state of the art of the different VET institutions.

Recommendations

Three different scenarios for possible VET system developments are provided in the report, and summarised in the table below:

- Scenario 1: VET as economic driver,
- Scenario 2: Gradual modernisation and consolidation,
- Scenario 3: Radical rationalisation of the existing VET system.

	Participation in VET	Required resources	Public and private delivery	Publicly agreed standards	Future ISCED 3 and 4 demand	Access/coverage	Decentralisation required
Scenario 1	extend	considerably more	yes	yes	covered	better	yes
Scenario 2	remain	more	yes	yes	partly	same	yes
Scenario 3	shrink	remain	yes	yes	not covered	worse	no

The national, regional and local levels need to be reconsidered for effective VET reforms. Strategic functions, new tasks and needs for capacity building of the different VET system levels have not been sufficiently addressed during the State Programme 2007-2012. The reform process needs to mobilise all relevant stakeholders through systematic consultation and participation in planning and implementation. The objectives of the reforms should be clearly understood and shared between the stakeholders. At national level these stakeholders are the Ministry of Education (with a leading role and with stronger institutional involvement beyond the VET department), the Ministry of Labour and Social Protection and other relevant line ministries, intermediate bodies (dealing with curriculum development, staff training and retraining, etc.), social partners and business representatives. At the regional level these include the regional authorities and offices for education, regional employment services and business representatives. At the local level these include school management and staff, local enterprises, parents and students. Only the combination of sufficient resources, inclusive strategies fostering ownership, sound capacities and flexible modes of monitoring and steering will lead to successful and sustainable results of reforms.

It requires a sufficient stock of well working staff and a clarification of roles: a MoE is not an implementation agency, but should lead the new policy outlines of reforms. The ministry is as well responsible that stakeholders involved in VET are sufficiently consulted prior and during the process of implementation. Moreover, the MoE should develop clear guidelines for intermediate bodies like the Teacher Training Institute, the Institute for Educational Problems about their additional tasks and functions in a reform process. Finally, the MoE must rely on intermediate bodies in the regions, which should be well informed (including regional labour market developments) and prepared to support reform implementation being a competent dialogue partner for the different VET schools. A reform is only as good as its preparation in terms of consultation, information and cooperation between VET stakeholders. This implies that regional entities should not only administer new regulations but proactively implement them together with the schools. Capacity building is key in such a context.

The future VET system reform needs to improve the quality of VET delivery and enhance the employability of the graduates. The latter must be informed by (regional) labour market research. In our view reforms should support a more extended VET system with increased enrolment and participation, because too many young people are leaving the education system without any employable skills profile on ISCED 3 and 4. This is a time bomb for the future of a rapidly developing country and a good argument for additional VET offers. Modern economies require a considerable share of labour force with ISCED 3 and 4 qualifications (which is approximately 50% of the workforce in the European Union).

Participation in VET in Azerbaijan is low at 11%. About half the youth does not specialise and only completes general secondary education. These trends need to change to ensure a competent workforce that can make Azerbaijan's non-oil sectors internationally competitive.

It is important to be aware that VET is more expensive and complex than general education, as it may require special equipment, specialised teachers, more space, and arrangements with companies. The higher costs can only be justified if VET becomes a career choice rather than a last resort. There is a general agreement

among education experts that secondary education expenditure should be covered by the State in order to ensure individual development perspectives for all. However, beyond secondary education, there are often arrangements for cost-sharing. Moreover, well educated people pay more tax revenue back to the government.

The aim of modern VET is not teaching students to reproduce skills and behaviour but developing competences for individuals that are able to act and can do skilful things in the world of work on a higher level of productivity. This often requires learning that goes beyond traditional class room settings and which should include sequences of work based learning in enterprises.

Strengthening private sector involvement

Future VET system development requires a stronger involvement of the private sector in the planning and delivery of VET. Sectoral bodies could support the planning and the identification of qualification requirements. More on-the-job training of students and staff in private companies is needed. Provision of training in private training centres can also be encouraged to address specialised areas that public providers cannot cover.

Improve planning and implementation of VET reforms through a participative approach

An explicitly forward-looking vision of VET comprising indicators needs to be formulated to replace the backward-looking nostalgia for the Soviet system. New VET reforms must be coherent to other national policies for social and economic development covered (i.e. horizontal coherence) and they must be vertically coherent with all stakeholders involved in the VET system. This requires a different policy planning process and reform design. VET is closely linked to business, technological development, markets, and issues of reputation from the perspective of parents and students. A new VET outline must consider these linkages and identify better the different interests of the players involved in the VET system.

Improvement of educational infrastructure, manager and teacher training must be complemented with optimised relations among the stakeholders creating communication and cooperation channels between different players in and outside the education system in order to create expectations for improved performance.

A monitoring and evaluation system including indicators should be available during the reform implementation in order to collect relevant information for possible adjustments. Indicators developed in advance will make monitoring and evaluation easier and could be partly copied or further developed from good practice elsewhere (e.g. EQAVET indicators). This refers as well to the reporting of VET schools. Sharing evaluation results on the performance of individual VET providers on a virtual platform or through an Education Management Information System (EMIS) may enhance the discussion about school performance and accountability for educational services but this will require more school autonomy.

VET is a good instrument to support regional development. This requires that decisions about VET in the different regions are based on regional economic and labour market developments. Intermediate bodies like regional educational bureaus could collect information about the training demands from teachers, trainers and school directors and should promote school enterprise cooperation. For such issues they need additional assignments, probably more staff but also more autonomy, in accordance with their role as key implementation agencies. National VET decision makers must also cooperate with the national employment service, which can deliver relevant data. It's from overall importance that future VET reforms are based on evidence about regional specific socio-economic developments. Launching additional (regional) labour market studies as recently commissioned by the MoE should prepare decisions about future VET reforms.

Support VET school development, adjust the school network and address staff capacities

A first step towards a new VET system is the creation of VET centres of excellence which cope through initial VET and continuing VET with skills development in line with the skills demands in the modern manufacturing and service sector, experimenting simultaneously with new forms of education and business cooperation. Such centres will have a strategic function for the overall VET system development in the country and would cover a specific segment of high quality training which is necessary in many sectors due to the rapidly increasing technological level. The VET Centres can also be used to provide support to other VET providers, e.g. for teacher retraining and curriculum development. Beyond these there is also a need in the regions for cross-sectoral VET providers that can support the skill needs of small and medium-sized enterprises (SMEs) in different services, including maintenance and repair, and improve agriculture and food processing.

Teaching personnel and school managers are important frontrunners in any kind of VET reform. They require targeted further professional capacity development opportunities and better professional career perspectives because they are important for implementation of innovation.

Strengthen international cooperation and consider EU and international experience

International projects have had a beneficial impact in the first phase of reform, without creating donor dependency. International know-how and services could be used as an integral part of a future reform, in checking carefully what kind of expertise from outside is not yet available in the country, but required for VET reforms.

2. INTRODUCTION

This evaluation report looks both at the process of design and implementation of a State (Reform) Programme for the development of vocational education immediately after its completion at the end of 2012 and the results achieved so far. The evaluation recognises the substantial progress made towards the revival of Azerbaijan's VET system, suffering from several negative impacts in the post-Soviet period. The evaluation report's intention is not to merely assess the programme, but to highlight successes and key problems of design and implementation in order to develop constructive hints and arguments in which way an existing VET system should remodelled.



Obsolete class room furniture still used in Shamakhi



Modern VET centre in Gabala

Main stakeholders and institutions of the VET system might still lack capacity building and resources in order to further increase proper performance and to improve relations of VET schools with their socio-economic environment. However, this report is not about questioning specific individual and institutional performance but about contributing through concrete and operational recommendations to the further development of the VET system and its effectiveness and efficiency.

The report could serve in particular to create an institutional setting comprising the MoE, regional departments of education, VET schools and stakeholders involved in order to foster a future cooperation in innovation and reform processes which contribute more to internal and external effectiveness and efficiency of the VET system – most of all to better quality, a better transition to work and higher enrolment rates in VET.

The ETF has been requested to conduct this evaluation of the State Programme for VET (2007-2012) by the MoE. The MoE did not provide the ETF with terms of reference (ToR) for the evaluation. However, it was strategically agreed that the ETF will look at two aspects which could positively influence further innovation and reform of the Azeri VET system:

- the entire process of policy outline and implementation, which aims to convert government priorities into the VET system; and
- the results achieved so far comparing them with the objectives set and the inner logic of the State Programme.

The first issue comprised the process how priorities have been identified moreover, how and if respective measures and action have been prepared with VET system stakeholders and monitored during

implementation. The measures that were supported by the State Programme are difficult to reconnect to the initial programme and activity plan. It has taken considerable efforts to establish the scope of the State Programme due to the constant changing priorities and the budget reductions that took place during the implementation.

In some meetings the impression raised that not everybody from the VET system was sufficiently informed about the main characteristics and objectives of the State Programme and there have been a certain confusion to explain, where the resources for innovation and rehabilitation of the VET schools exactly came from. This made it partly difficult to follow a read thread during all the field visits carried out in the first half of 2013. However, these visits and discussions in the VET institutions have been one of the main sources of information where this report relies on.

3. METHODOLOGIES FOR EVALUATION WITH A BIFOCAL SCOPE: LOOKING AT BENCHMARKED RESULTS AND THE PROCESS OF PREPARATION AND IMPLEMENTATION

Benchmarking a reform programme against its main objectives is a common approach in evaluating social processes which are driven by political priorities. Such social processes must be distinguished from longer lasting societal developments, which are slowly progressing and which trigger gradual but constant change in societies, including evolving social patterns and values (e.g. towards VET). The metaphor 'you cannot see the grass growing, but it happens' relates to such long lasting social processes.

The evaluation and the State Programme, however, have been politically triggered, taking into account a timeframe for main short and mid-term trends in the Azeri socio-economic development. Contrary to long lasting social changes, such reforms have a fixed duration in order to implement certain measures for results, which should be achieved. Traditional evaluations stick mostly to quantitative methods of analysis in order to obtain information, if main objectives have been achieved through defined measures and indicators and within existing budgets.

Such an approach would not have covered the complexity of what the Government of Azerbaijan tried to achieve by designing such a strategy, which has considerable consequences for the main stakeholders of the VET system. Reforms are in many cases as sustainable and as good as these intentions have been prepared in a participatory and consultative manner prior to implementation which should take place on a well prepared ground through information in advance, capacity building, feedback loops, etc.

This evaluation required an approach, which took simultaneously into account both the stipulated objectives and the process of its design and implementation. In the design phase sustainability of reform and innovation depend on:

- which evidence the design used, delivered by which sources;
- how was initial participation and consultation considered of main stakeholders involved in implementation of VET system reform;
- how was this process monitored and if necessary, corrected, in using feedback and additional information from actors involved; and finally
- did this lead to considerable modifications of the programme or has it been implemented following exclusively bureaucratic rules and regulations of disbursement of additional public resources.

This point is highlighted, because sustainability in programmes and projects depends mainly on the following four factors, which could have been substantially supported by the above mentioned issues:

- a strong ownership of the main actors involved;
- a certain amount of resources available;
- a flexible project management; and
- capacity building of the institutions and actors involved.

An approach to evaluation, which comprises benchmarking in the context of social process of reform design and implementation, favoured a specific methodology, which went beyond mere quantitative approaches, comprising:

- desk research;
- field visits to VET schools, the business community and other relevant public and private institutions including the scientific community and donor representatives;
- analysis of structured questionnaire disseminated to VET schools¹; and
- guiding standards for interviews with decision makers and managers.

Hence, the present report is the result of analysis of information collected through all these different methodological instruments country and anecdotal evidence from other sources like donors etc. The evaluation process also comprised a validation event in December 2013 presenting and discussing the main findings with VET stakeholders in the country.

Moreover, this report makes some reference to the analytical framework designed by the ETF and used for VET system assessment in the Torino Process carried out in 2010 and in 2012 in the partner countries. The analytical framework comprises five main building blocks for analysing the partner countries VET systems, such as vision, external/internal effectiveness and efficiency and governance comprising finance (ETF, 2012a).

The ETF approach to this evaluation tried to focus more on the outcomes and impact of the measures rather than on inputs.

¹ Some 81.3% or 87 out of 107 VET institutions responded to this school questionnaire. The questionnaire and a proper statistical analysis of the database are part of this report.

4. THE REFORM PROCESS: STRATEGIC APPROACH, SOCIETAL CONTEXT AND IMPLEMENTATION

The State Programme for VET 2007-2012 has been clearly conceived by the national decision makers in the country specific context, which should better support a diversified socio-economic development, complemented by a correspondent skilled labour force, which consists not only of higher education graduates but includes middle level qualifications delivered by the VET system on ISCED 3 and 4 level. Such an effort makes reference to the prevailing oil sector. However, it builds in the future on a widely diversified economy, which better contributes to more decent employment opportunities and to diversified multi-sectorial economic activities.

The program envisaged implementation of the following goals: strengthening the material-technical base, establishment of new economic relations, update of VET content, training of VET management and teaching personnel as well as enhancement of the social status of the VET system.

4.1 The strategic relevance of the non-oil sector

The oil business is still the most important sector of Azerbaijan's economy, characterised by capital intensive extracting technologies, which do not absorb huge numbers of the labour force. Consequently a considerable share of the country's gross domestic product (GDP) has been achieved with a small share of the labour force, which has been partly recruited from outside the country. However, the country understood quite well, that its natural resources are limited and a long term strategy for well-being and welfare of Azerbaijan's citizens must rapidly build on a diversified economy, which successfully performs in the context of globalisation able to create additional employment opportunities, which cannot be created in the capital intensive oil sector. This requires a skilled labour force and hence, an education and training system, able to deliver educational outputs demanded on the labour market.

The Decree of the President on approval of the State Programme mentions explicitly this strategic approach (p. 3): 'Along with the high-levelled development of the oil and gas sectors in the country, the development of non-oil sectors and the sectors with highly excessive value capacity are the priorities of the economic policy of the government. The profile structure of the technical vocational educational should be able to reflect the modern trends of the social, economic development, and be based on the relevant branches of technical vocational education on the one hand, and provide advanced personnel training required for the application of modern technologies on the other hand.'

The State Programme also highlights the importance of taking into account the needs of regional and local economies (p. 3): 'Management of TVET in the framework of the unified state policy requires further development of links with labour market not only at country, but also at regional level and to promptly meet the needs in specialised competent workers in different fields of market economy.'

The government of Azerbaijan has been undertaking major efforts to develop the regions through direct state investments and also encouraging private investments. The Programme for social and economic development of the regions has been implemented in 2004-2008.

The regions have considerable potentials in sectors like agriculture, which still absorbs a mayor part of the labour force². The tourism sector is expanding, attracting customers on the sea side as well as in the

² The responsible for the EU twinning project for VET in agriculture stated that there are still 700,000 small farmers in the country.

mountains of the north. Active regional development programmes are supporting reindustrialisation in many zones of the country and hence new centres for production and distribution of goods and services have been built up.

Moreover, with the information and communication technologies (ICT) there is already a process of economic diversification in place, which receives targeted support by government strategies, e.g. in the creation of a high tech park near the capital Baku (Azernews, June 2013), willing to attract and promote innovative SMEs through certain periods of tax exemptions³. The development in all these sectors and the rapidly increasing import of technologically highly sophisticated products will have severe consequences for the demand of new middle level skills delivered by a well performing VET system.

The State Programme perceives clearly a new strategy for human capital development within the socio-economic development potentials: 'Recently the dynamics of economic development in the country has been increasing. High rate economic growth, further development of market economy and positive trends in the development of the region put forward new requirements for technical vocational education system. At present establishment of new type of VET schools, capable to meet increasing needs in competitive and highly qualified personnel at the labour market is a priority' (p. 3).

4.2 The VET system in the socio-economic context

During more than a decade after independence the VET system underwent a critical period, which was caused by declining resources and the absence of clear VET policy priorities. The situation was exacerbated by the conflict in Nagorno-Karabakh and the occupation of Azerbaijani territories leading to a large number of internally displaced persons (IDP). Under these dramatic circumstances, the decision was taken to use the dormitories and premises of many VET schools for hosting Internally Displaced Persons. The number of VET institutions dramatically fell, the relations with enterprises broke as a result of the collapse of most base enterprises. The priority for reform and innovation has been given to other educational sub systems and the VET system remained with its Soviet legacy. Numerically the number of VET institutions dropped down and today (2013), 'out of the functioning technical vocational educational institutions 47 are vocational lyceums and 60 are vocational schools. In vocational lyceums and schools of the Republic more than 23,000 students enrol with 131 specialties. Between 2007 and 2012 the number of students that have been admitted to VET and entitled to study in technical vocational institutions has grown from 13,000 to more than 18,000 students' (p. 2).

The Torino Process Reports of 2010 and 2012 have been looking at the performance and achievements of the VET system in the context of the changing needs of society and the economy, which are considered as well in the previous chapter. Azerbaijan's economic and social development has been steadily improving since 2006. In 2011, the World Bank classified Azerbaijan's economy as a higher middle income country. The period from 2006 until 2009 saw high economic growth, followed by a recession period from 2010 to 2011 when the GDP growth rate dropped from 9.3% in 2009 to 1.0%. Although much of this growth has to be attributed to oil revenues, the international image of other economic sectors and their share in GDP grows as well as already indicated in the executive summary.

The positive macro-indicators do not provide the full picture. Poverty has not been eradicated yet and the problems of the IDPs remain widely unsolved. Wage employment is only a small share of the labour market and the vast majority of the workforce work in small companies, in agriculture and family businesses. The energy sector is good for two thirds of the GDP, but employs less than 1% of the workforce. Further progress in the diversification of the economy is critical to ensure more employment opportunities and the stability of

³ The above mentioned Azernews' article 'Work underway to set up high-tech park in Azerbaijan' mentions as well that 2013 was declared as the year of ITC in the country.

jobs that have been created over the past five years. Human resources development, with an emphasis on middle level qualifications, is key to this. Education reforms have intensified during the past decade. Budget allocations for education have increased five times compared to 2003. But there is still much room for improvement.

VET can support such efforts for economic diversification. If it fits to the needs of the companies skilled labour force contributes to more productivity and competitiveness. A higher productivity level is a precondition for further investments of companies and hence a support for a self-sustaining diversification process.

The 2010 Torino report already documented increased attention to VET since 2007 – and in particular through the State Programme for VET Reform 2007-2012. The State Programme started a process of restructuring of schools and review of VET contents, links with enterprises had to be strengthened, and a methodological Centre for Development of VET was established. The upgrading of facilities was highly needed as the majority of schools could not offer the conditions for quality education with poor facilities, and basic infrastructure. According to data of the MoE in 2010, 78 out of the 107 current vocational schools needed restructuring.

The Law on Education which was adopted in 2009 established a new legal framework for education – which was more comprehensive and dedicated attention to lifelong learning. The law has been a precondition for developing new visions and educational reforms in the country. This is an ongoing process which requires further attention towards reform and innovation of several educational sub systems necessary and triggered by changing demand of a rapid socio-economic development.

The law was still to be succeeded by secondary legislation (regulations) and by specific legislation for higher education and for vocational education. The first Torino Process Report from 2010 concluded that reforms included important innovations, in each segment of the education system in bringing Azerbaijan in line with European and international changes, but lacked system-wide mechanisms that can take account of regional, sectoral and national skills needs for general, vocational and higher education and adult learning. VET was following behind reforms in general and higher education, which were therefore starting to influence VET reforms. The report highlighted the need for more integrated approaches that look at the relevance of the education and training provision as a whole. A small number of seven pilot curricula had been developed with the support of Tacis and UNESCO projects that were tested, but a consolidated approach to curriculum development was missing.

Strengthening the links with the labour market had been translated into a number of concrete initiatives for cooperation with companies, but a systemic approach for involvement of enterprises in VET is missing. Systematic work and a dialogue with respective stakeholders at school, regional, sectoral and national level is required for such cooperation.

The formulation of occupational standards and the reform of qualifications linked to the introduction of the NQF offered a new approach to introduce more relevant quality assured qualifications, but the link between the occupational standards and the VET qualifications still needed to be finetuned. Many of the ideas for reform were identified, but needed to be adapted for implementation. The capacities for reform and implementation needed to be strengthened.

The VET Department and the Centre for the Development of VET in the Institute of Educational Problems struggled with capacity limitations. The teacher student ratio in VET is high by international comparisons, but the VET sector struggles with both a surplus and a shortage of teachers. There are limited opportunities for new teachers and there is a nationwide tendency that the teacher profession turns to 'female', because social attributions and the living standards forces most of all males to look for better paid jobs. Today, the share of female teachers is 70% out of all teachers. Over the last decade the workforce of teachers and instructors was slowly declining and aging. Most vocational schools still needed to upgrade their facilities.

Overall reforms had started, but bigger changes were needed to improve the quality and relevance of initial training, college education, higher education, and continuing education and training (additional education according to the Law on Education). Without more attention to the reform of education an accelerated diversification of the economy will have serious limits. It will require that much more students need to specialise for the demand on the labour market. Initial training and college education need to become more attractive and higher education must have more labour market relevance. Moreover, adult learning needs to be developed within a lifelong learning concept.

4.3 The implementation of the reform

Reforms are as successful as the process of implementation and the coherence between formulated objectives, available resources and the cooperation of stakeholders involved. This required in the context of the present evaluation an inside look at the State Programme for VET reform in order to better understand and to analyse its contribution to the improvement of VET system's performance in the recent years. Moreover, the evaluation will point out as well where this effort partly failed and what should be more systematically emphasised in the future for a new phase of reform driven VET system development.

In a brief overview (p. 4) the Decree analyses main constraints in the VET system in order to define strategic areas for future intervention. The weaknesses focus more on effectiveness, internal efficiency of the VET system and some governance issues. However, the latter have not been perceived as the main weak point of the system performance, because governance related issues like school enterprise cooperation in institutionalised forms or discussions about a national VET council are still in a very initial stage and should be further developed in future reform activities.

A VET system reform is more than the improvement of educational infrastructure and teacher training. Such reforms should deal as well with optimised sources for evidence and relations among the stakeholders creating communication and cooperation channels between different players, including the social partners but as well the teachers and trainers and provide opportunities for professional competence development.

4.3.1 Using evidence for reform design

The description of the main weaknesses in the Decree focuses on six innovation areas:

- the entire learning environment (internal efficiency/quality);
- managing/cooperation – including relations to employers – and financing (governance);
- mismatch with the labour market requirements (effectiveness);
- curricula, textbooks and other teaching aids (internal efficiency);
- considerable gaps in the individual competences of teachers (internal efficiency);
- a strong focus on schools rather than on the demand side (external efficiency).

The Decree sees the main system elements as the prevailing bottle neck for a better efficiency and as well for a better matching with the demand on the labour markets. Improved governance and management of the VET system plays a minor role in the document. Field visits underline until today this view: despite of the State Programme the learning environment will be still subject of further improvements/investments and hence, confirms the priorities addressed in the State Programme.

It remains entirely unclear where exactly the evidence for the identified areas for reform came from. This concerns the definition of the areas and their size, as well the unclear set of criteria, which led to the selection of a share of VET schools, which have been considerably improved through new buildings and other

rehabilitation measures, including a not transparent mechanism for budget allocation promoting the different schools.

Moreover, as one result of the school questionnaire in 35.6% of the schools no assessment of the needs took place. The reasons for that are unknown (may be a certain repetition in reviews articulated by the schools with assessment). The rest of the schools reported assessments, which have not all led to new infrastructure and buildings (planned but not implemented). Obviously in most of the cases the assessment has been carried out by representatives of the MoE. However, it's not clear if the assessments always led to a situation where the desire and needs expressed by the schools have been covered. Some comments to this question stated that procurement is still necessary. This might be an indicator between assessment on the one hand, but no correspondent action on the other.

The Decree does not systematically address the entire complexity of the VET system and its relation to the labour market development in the regions. The improvement of inner systemic VET elements through the State Programme was not systematically linked with efforts fostering a better governance of the system, like institutionalised education business relations, a national or regional VET councils or financing instruments which create more accountability and self-initiative in VET institutions. Recent views on VET system analyse the performance of inner systemic elements holistically in relation to their socio-economic environment, comprising institutionalised forms of governance in terms of how the inner systemic performance could be linked to other societal systems (like the economy) through e.g. councils, sector committees etc. (ETF, 2012b; OECD, 2009; World Bank, 2013). Only from such a holistic approach, one might logically and coherently deduct extra systemic VET functions for the overall society like more competitiveness, increased social inclusion, decrease of unemployment etc.

A holistic approach refers as well to the use of regional labour market information for setting reform priorities in accordance with different socio-economic developments in the country. The government committed labour market research during the reform period for some economic regions. It would have been better if such research would have taken place before deciding about the allocation of funds on the different VET centres. Moreover, it's unclear if research from donors in the context of their project has been effectively used in order to deduct reform priorities from evidence. Nevertheless, the reform process was input driven following questions like 'what VET system elements do the schools need to improve?' rather than 'what educational outputs do we need in according to regional socio-economic developments and what are the preconditions for such outputs in the VET system/schools?'.

The Decree mentions various other national strategies and other State Programmes for economic development, poverty reduction etc. However, an inner logic and an action plan comprising as well indicators how the State Programme for VET should have been linked during its implementation to the other mentioned strategies/programmes are missing. It seems to be more a rhetorical part of the strategy itself rather than a comprehensive State Programme, which defines systematic links and activities in order to achieve more complex objectives (like training for poverty reduction). We need to make a clearer case that this is actually of prime importance to build on the local development needs.

The Decree defines the above mentioned five areas of VET constraints and gaps which impeded to improve effectiveness and efficiency of the VET system. Consequently, the State Programme sees its main activities as well in five areas for future action:

- strengthen the entire learning environment and set up new training institutions in certain regions (internal quality and efficiency/coverage);
- new economic relations and management in the VET system (governance);
- improve VET contents and support it with learning material (effectiveness);

- improve skills and social status and welfare (reputation) of the teaching staff (efficiency); and
- raise the attractiveness of VET and maintain better relations to employers.

These areas for action are coherent to the problems defined in a first step but lack more systematic linkages to external drivers like the business sector, technological developments, emerging markets, labour market research etc. Many subareas stick to the improvements of inner systemic elements like better and updated textbooks, teacher training and other equipment. The second of the above mentioned area gives priority to relevant legal issues/financial issues like increasing the financial independence of VET institutions, provide multi resources in a transparent manner, and increase the efficiency of educational spending.

The Decree contains 25 areas in its activity plan for implementing the entire programme, which points out more precisely the different areas for action and mentions as well the correspondent executors, which are mostly the Cabinet of Ministers and/or the MoE. The activities are derived from the main five areas of defined constraints and prioritised areas respectively. They contain apart of all issues for the improvement of VET system elements some other areas which could be linked to a slightly revised management and governance of the system like a coordination council to regulate cooperation with employers or to develop a monitoring and evaluation system for VET in order to build future decisions more on evidence.

However, this action plan contains no indicators, which would have been relevant for constant monitoring and evaluation of the implementation process. Such a monitoring system in itself would have been the precondition for corrective action and more sustainability while implementing the State Programme.

Moreover, it's not clear if and how the envisaged improvement of different VET system elements refer to more general objectives like better quality, higher enrolment rates, a better transition from school to work etc. and if such issues (or others) are the real more general but strategic objectives of the State Programme.

4.3.2 Participation and consultation

Beside of the use of evidence for the design of innovation and reform strategies the systemic involvement of stakeholders and consultation processes play in Europe's good practice (open method of coordination, European social partnership cooperation etc.) an important role towards successful design and implementation processes. It remains unclear why such mechanisms have not been more systematically used in the planning and implementation phase of the State Programme. This issue might be related to the prevailing culture and how the roles of public institutions and of organisations of the civil society are perceived.

However, the dynamic of the State Programme reform process triggered in 2010 similar intentions of the national stakeholders which formulated the following recommendations (ETF, 2011 Torino Process):

1. create a strategy for the development of stronger relations between employers and educational organisations, as well as for the development of social partnership;
2. the formation of a coordinating council to regulate the relationship between business and education system, which will include representatives from government, non-governmental agencies and businesses;
3. support initiatives for the development and establishment of specialised institutions for the retraining and upgrading of the labour force in accordance with changing labour market needs (including support to existing VET providers);
4. create a legal framework aimed at activating the participation of employers in the process of training;
5. create an NQF to support the accreditation and certification of qualifications;

6. establish and support bodies that can represent the qualification needs including representatives from the World of Work and in particular from economic sectors.

Such recommendations are clear indicators that the perceptions of roles and involvements in VET reform design and implementation are changing towards more stakeholder involvement. An orientation towards a cooperative process gains ground in which not only public stakeholders play in the future an important role. It would have been better, if such issues would have been taken systematically into account while planning and implementing the State Programme.

However, the recent years reveal a positive trend towards more involvement of stakeholders. This concerns the role of a future workforce development agency (WDA) to support the development of specialised institutions for retraining and upgrading of the labour force in accordance with changing labour market needs, the creation of an NQF and most of all the establishment of bodies for the identification of the skills and qualification needs of six economic sectors. Moreover, there is also progress in the development of new VET curricula.

There are signs of change in education business relations towards more cooperation, through ad hoc cooperation at the local level of schools and companies but also gradually at the system level. But the appropriate mechanisms for a systemic change have not been identified yet. Although it appears that the MoE has been actively facilitating and brokering many individual examples of education and business cooperation at the local level, it is not clear whether this was part of a policy to systematically push such education business relations across the system. The main difficulty seems to be how to organise purposeful self-sustainable partnerships between the world of work and the education system. Schools in the present set up lack the responsibilities and means to develop strong local partnerships. Therefore, as far as the strategy for stronger relations between employers and educational organisations and the formation of a coordinating council is concerned no real progress triggered by the State Programme can be reported, while there is also no clear legal framework yet for VET to activate the role of the participation of employers. Two important draft decrees (on the NQF and the WDA) have been proposed to the Cabinet of Ministers and are under consideration.

More cooperation takes meanwhile place at sector level, which has been not systematically promoted by the State Programme but by the Development Improved Occupational Standards (DIOS) project: Pilot Sector councils have been established within the DIOS project. Due to the low degree of business organisation, it is difficult to identify sector representatives that can truly represent their sector. Moreover, labour market information does not provide systematic indications of skill needs. With support of the ETF CVET project the role of sectoral councils are under review in order to explore a stronger ownership by representatives from economic sectors. After the decree on the WDA is coming into force, the role and status of the sector councils could be formalised.

4.3.3 Monitoring and evaluation

There is no documentation about intermediate evaluations of the State Programme or feedback discussion triggered by the MoE or the regional education bureaus in order to monitor better the implementation and the progress of the reform. Such instruments are not even mentioned in the most relevant documents which are publicly available.

Such instruments could have had a bipolar focus: on one hand intermediate evaluation reveal evidence for corrections of a reform programme, on the other hand identification of staff concerned by the reform could be increased because their opinions have been considered as 'voices from the ground' where change takes place. Hence, such instruments might have had a correction function and a reinforcing function for further progress in the State Programme.

This argument is underlined by the fact that crossover, substantially rehabilitated VET schools revealed a more encouraged and motivated social climate among employees and more education and business relations with positive consequences for school management and teaching staff. Substantial rehabilitation has apparently positive consequences for the mindset of the VET staff and the social climate in schools and increased significantly demand of the learners as the school questionnaire revealed. Results of the questionnaire disseminated in the schools are supporting this.

4.4 Summary

Despite of some rhetorical evidence the State Programme and specifically the process of implementation missed finally:

- vertical and horizontal coherence among different ministries and hierarchical levels; and
- more input than output-driven from its strategic approach and its implementation modalities.

The State Programme did not systematically build on coordination with other policies from other ministries and vertically it is characterised more as a top down approach, rather than on full participation and cooperation in design and implementation, building systematically on other stakeholder involved in VET system development.

Labour market research in the regions was too late commissioned by the government in order to build the reform strategy systematically on evidence coming from the socio-economic developments in the regions and its development potential. This let apparently on the operational level more to a 'what do you need in the school approach' rather than to a strategic deduction of school improvements from evidence about regional human capital development needs.

A WDA as foreseen by the Ministry of Labour could be very important in the context of connecting other VET contents and performance with human capital requirements. A similar proposal was already annexed in the Activity Plan of the Decree under 5.19.

5. ACHIEVEMENTS OF THE STATE PROGRAMME

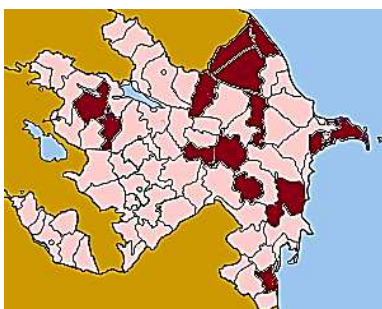
This chapter summarises the main findings of the evaluation of Azerbaijan's State Programme for TVET 2007-2012. It highlights the main achievements and critical points of the reform efforts. These are used to formulate general recommendations and three different scenarios for future VET system development, for consideration decision makers in discussions on new reform programmes.

Prior to the 2007 reform, the VET system was in a disastrous shape and the overall and most important achievement of the reform is, that *VET is back on the agenda of policy discussions*. This includes the public awareness, that VET is a relevant part of the entire education system. During field visits many VET schools recognised the substantial improvements launched by the VET reform in terms of better educational infrastructure – comprising buildings, equipment of workshops, textbooks, teacher training, new curricula and, in some cases, emerging but successful education and business relations on the local level. Starting from the structure of the State Programme we will evaluate the results for each strand of the State Programme.

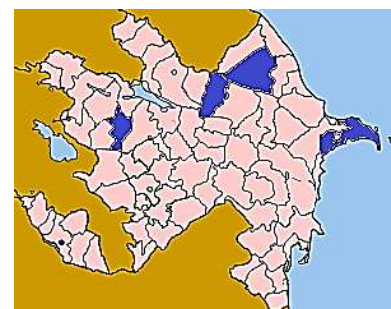
5.1 The facilities of the VET system have improved

5.1.1 Restructured schools

Many buildings lacked basic facilities such as heating, or even running water. No investments had been made since the Soviet period, and the equipment in the schools dated back to the Soviet times as well. In the original planning documents for the State Programme 27 Institutions were proposed to be reconstructed and one in Ismayilli would be built from scratch. Twelve of the 27 institutions were to be located in the biggest cities Baku and Ganja, while 15 schools would be reconstructed to address the training needs in the regions. The original plans were abandoned. It is difficult to reconstruct what happened exactly and why the changes were made. In the end 20 schools have been completely rehabilitated with support of the State Programme and in addition two multifunctional VET Centres in Gabala and Ismayilli were built from scratch. The restructured schools are all located in the bigger urban centres, including five more restructured schools in Baku than originally planned. In addition some schools have been restructured from other sources. One restructured school was transferred to the Ministry of Culture and Tourism.



On the left the districts where schools were planned to be reconstructed, and on the right districts where actual reconstruction took place, showing a strong bias in the implementation on the bigger cities Baku, Ganja and Sumgait, with only Gabala and Ismayilli as the exceptions



It is difficult to say whether schools were prioritised for restructuring because of their situation or because of their potential. The MoE had made an inventory of the situation of the buildings as well as the equipment available in schools. Through the ETF survey among schools we were unable to establish a concrete link between the assessment of the schools' needs, or the fact that they had made concrete proposals for improvements and the decision to restructure specific schools. The ETF team visited four schools in the regions that had been on the original list for restructuring. Two of these schools seemed to have potential to grow and could probably have benefitted substantially and immediately from improved conditions, while the situation in the other two schools could be described as so desperate that much more comprehensive measures would be needed to ensure a future for these schools.



Vocational Lyceum No 2 in Ganja under reconstruction

As a result of the improvements made through the State Programme, there are now very diverse conditions for schools. The restructured schools make a very positive impression in contrast to the rest. Decent conditions in restructured schools have improved the image of VET and have made VET again an option of choice for many families. The completely restructured VET schools are more attractive for learners and parents. They all have seen the numbers of applicants increase. However, this does not mean that only restructured schools became more attractive as more than half the schools have reported an increase in applicants for VET.

In theory 48 schools have dormitories that could host almost 9,000 students and staff coming from elsewhere. However, most of these buildings are occupied by internally displaced persons (IDP) from the occupied territories and refugees from Armenia. In some schools without dormitories IDPs are housed in classrooms. Only four vocational schools have functioning dormitories at the moment. The absence of functioning dormitories means that schools can only attract local students and staff. This definitely impacts on the quality of education and on staff and student mobility and has a knock on effect on labour mobility. Good schools like vocational lyceum N° 3 in Ganja and vocational lyceum N° 7 in Baku would be able to transform the dormitories into extra class rooms in order to rapidly increase their capacity. The circumstances under which the IDPs live in the dormitories on the premises of the schools disturb the learning environment.



School dormitory inhabited by IDPs from Armenia and the occupied territories in Ganja

5.1.2 Modern equipment

More than 60 schools profited from smaller repairs and equipment. Computers are the most common type of equipment delivered to VET schools. In 2008 the proportion of available computers in initial VET institutions was only 1:130 pupils, but as a result of the State Programme this ratio improved to 1 computer per 32 students, enough to ensure at least one hour of Information and Communication Technology (ICT) practice per week. As a result of ICT supply increase, the vocational education institutions started broadly using the e-information resources. The MoE has used the opportunity of the improved ICT infrastructure and internet access in schools to create two e-portals for the VET system. The portal www.avel.az is aimed at providing and sharing information on curricula development and the portal www.psds.edu.az has been developed for information, career guidance and counselling to perspective VET pupils. Some schools have also taken the opportunity to develop their own webpage.

In Soviet times schools used to have a lot of vehicles and agricultural equipment at their disposal, which is still there often in a very poor state.



*Obsolete agricultural equipment in Göycay
This type of equipment can still be found in most
VET schools and is a reminder of a more
prosperous VET system in the past.*

These cemeteries of obsolete equipment in vocational schools are actually an unwelcome reminder of the 'glorious Soviet vocational education system'. It is unlikely that this wealth in equipment will ever be reproduced in the future, given that much of this equipment is getting out of date relatively quickly and there is much more diversity in the type of equipment today that is available on the market and in enterprises. Schools will therefore never be able to reproduce the conditions in local enterprises, making training in enterprises a must for vocational education. However, this does not mean that schools should not have any equipment for practice and that all the practical training is better carried out in companies. On the contrary closer cooperation with companies will also require that students are better prepared for their practice in enterprises and have received all the necessary basic practical training in schools. New equipment in schools opens the doors towards employment.



New welding equipment in vocational lyceum No°7 in Baku

The majority of schools is still in need of repairs, restructuring and equipment. A survey from the MoE shows that 81 schools do not have functioning heating systems. However, this does not mean that all schools would really benefit from restructuring. Analysis of the answers from schools of the ETF survey show that restructuring is important, but needs to be implemented together with other measures to really improve VET. Investment in schools has to be linked to their potential to grow and improve, rather than their needs for repair. Some schools are in such a desolate shape, lacking proper infrastructure, staff and links with companies, that keeping them open for a few more years until they can finally be subject to the necessary changes in buildings, equipment, staff and programmes is not justified. Students cannot get proper education under such conditions, and would be better off in general education.

5.2 Governance of the VET system has improved, resulting in closer cooperation with enterprises and schools generating of additional income

According to the State Programme more school autonomy was important to foster closer links with enterprises and to generate additional income for the school and spent the funding more effectively. More autonomy would come with more responsibility and more accountability. Although most schools feel that they are more autonomous than before the State Programme, experimentation with financial autonomy was blocked in the implementation of the State Programme. There are many examples of closer cooperation with enterprises, in particular with larger companies such as Azersun, Statoil, Gilan Holding, Knauff group, Baku Garments factory and Baku Metro, but these links were established more with the active intervention of the MoE than directly by schools.

The VET centre for the Tourism sector in Gabala is closely linked with the Gilan Holding hotels in the city. It is one of the very few VET schools that can claim its own base enterprise, which was the norm for VET in the Soviet period. Most schools now have to develop links with many enterprises, including SMEs. The VET centre in Ismayilli and vocational lyceum N°3 in Ganja demonstrated that it is possible for schools to actively develop links with companies. In most cases schools have contracts with three companies for practice of the students. But often these are not based on real interests of companies to recruit and train new staff. The fact that relations to the business sector and the local community did not improve in most schools very much reveals a traditional self-perception of the schools, having the learners and other inner systemic elements like curricula, textbooks, computers more in the focus for daily surviving rather than external relations which could mid-term lead to better performance levels of the schools in their socio-economic environment. Some sporadic evidence of income generation was found during our visits, through training and production services, but it did not generate any substantial income for the schools.

The two VET Centres were established with a different intention than the other schools, fostering closer links with local enterprises and authorities that were represented in the board together with staff and parent representatives. This is a very positive development that could be extended to other schools and improved

further by adopting student representatives into the board as well. Our discussion with students in Ismayilli showed that they can bring in important new perspectives for the development of VET schools. Quite a number of students e.g. aspired to become self-employed or to continue their studies rather than to start working for a local company, some were interested to work or study some time abroad.

5.3 The contents of VET has been brought in line with needs

There is a clearly defined need to develop VET to support the diversification of the economy. Oil and gas exploitation do not create many jobs and diversification is not only important to ensure growth when oil and gas gains decrease, but also to ensure sustainable employment. In many regions a rapid economic development takes place, which reveals the *demand for middle-level skills* able to handle, maintain and repair capital intensive equipment. Statements like ‘In this town you will find no qualified electrician below the age of 40, they all have been trained in the former Soviet Union’, reveal a labour market problem but also shows the dynamic development in the country and the fact that a better skilled work force is required in many places outside Baku.

5.3.1 Improved labour market intelligence

There are many initiatives for the anticipation of skill needs performed by different public bodies but without coordination and systematic inter institutional cooperation. The Ministry of Economic Development with support of the Research Institute for Economic Reforms is conducting macro and micro economic forecasting, The State Statistics Committee of the Republic of Azerbaijan is conducting quarterly household and labour force surveys, and annual surveys (sampling) of the turnover in the workforce. The public employment service is developing territorial employment plans, and short term one year projections. The Ministry of Labour has started to develop occupational standards for priority occupations in seven sectors, together with representatives from companies. It plans to establish a Workforce Development Agency to develop and update occupational standards, and to make them available for the training of adults. The Scientific Research Institute and Training Centre of the Ministry of Labour is developing and testing skills anticipation models, including a study of the ICT sector.

The MoE has piloted studies on regional skills development needs in the Aran and Daghigh Shirvan economic zones, in order to inform future decisions for VET system development. This is good practice for evidence-based policy making about new investments. The studies really helped to show the importance of a more regional approach. After the study all VET schools were instructed to collect and analyse more labour market information in order to get a better understanding of the labour market dynamics. These included the regional development programmes, PES offices data about employment (qualitative and quantitative), data about economic entities in the region, data about opportunities to continue education, and last but not least, data about what happened to their own graduates.

5.3.2 New qualifications and curricula

Occupational standards are seen as key to defining the needs of the labour market for specific occupations. The Ministry of Labour with support of the World Bank has been developing 200 occupational standards in the framework of the project Development of Improved Occupational Standards (DIOS). Before this project started, the MoE developed new profiles based on pilot occupational standards with the support of international projects. Although the MoE started before the DIOS project to develop pilot occupational standards to inform new modular curricula in the framework of international projects (UNESCO, Tacis, World Vision), it took quite some time before both processes (the occupational standards development and the curriculum development) were linked. This was at least partially due to the fact that such links were not specifically planned by the DIOS project. This year however 40 curricula have been developed using the occupational standards from the DIOS project.

In order to support the quality assurance of qualifications, make them international comparable, and link to the Qualifications Framework (QF) for the European Higher Education Area and the European Qualifications Framework (EQF), an inter-ministerial committee was established by the MoE to develop a national qualifications framework. The new education act was very much at the basis of the National Qualification Framework (NQF), as were curriculum reforms in general education, and developments in VET, higher education and adult learning. The development of the NQF received expert support from the ETF and the World Bank, while the Council of Europe commented on the higher education part of the draft NQF decree. A proposal for the NQF has been ready for more than a year, but has still not been approved. It will be important to structure the qualifications development processes in Azerbaijan, supporting the design, assessment, and certification of qualifications. The NQF will introduce national standards that should ensure that learners that complete VET programmes provided by different private or public institutions will meet the same learning outcomes.

In order to sustain the development of occupational standards and ensure a reference point for the sectoral committees that assist the identification of sector priorities and participate in the occupational standards development processes the establishment of the Workforce Development Agency is crucial. But also the establishment of the Workforce Development Agency is still not approved. The Ministers of Education and Labour have had different views on the remit of the new agency, and whether it could certify adults against occupational standards or not, while the Ministry of Finance is not ready to make additional funds available to fund staff for the new agency.

A new classifier of specialisations for VET has been developed that includes 700 different occupations. Only 130 of the occupations are actually taught and 60% of students are only in the following 15 profiles. These profiles are as follows (in order of priority): accountant – computer operator; accountant – operations officer; fashion designer – tailor; woman hairdresser – manicurist; electric – gas welder; car mechanic – car driver; tailor – sewing equipment operator; car mechanic; mechanic – welder; tractor operator – machinist; tractor operator – mechanic and driver; tractor operator – mechanic; pastry – chef confectioner; mechanic for agricultural machinery; and electrician. During the visits we also noted that artificial insemination expert enjoyed considerable popularity, while the new profiles for cook, hotel receptionist, barman, waiter and farmer had not been that widely introduced yet. With better labour market information and new occupational standards, better information for families and learners, these profiles are likely to change regularly during the coming years.

5.3.3 Textbooks

Textbooks in Azerbaijani are clearly the area where the state programme has brought the most visible impact in schools. Although some textbooks had been developed in the period 2000-2007 (sometimes with support of foreign donors) there is now a whole new series of 30 textbooks available. These are considerably thinner than the Soviet textbooks that were available before. Most teachers seem happy with these new textbooks which they consider fit for purpose, but some think they are too superficial and do not provide sufficient knowledge to students. Although many new textbooks have been delivered, not all schools had received sufficient textbooks to provide every student with a copy. Another issue that was raised by an author of a new textbook was that the book took more than a year to get into circulation. No assessment could be made of the quality of the textbooks, but looking at the bibliography they seem to rely mainly on national and Russian language publications.



Old and new textbooks on display in Shamakhi

5.3.4 Practical training

Practical training is fundamental for VET, both in schools as in enterprises. Some companies are showing interest to train not only students but also production masters and even teachers on their premises. The State Programme facilitated some new opportunities for practical training through improved school enterprise links but did not manage to rationalise the shares of theoretical and practical hours with more focus on practical trainings and internships at production enterprises. Even if the curricula with defined list of subject and hours is in place, current technologies for practical training available at VET institutions remain more than outdated.

Practice varies considerable from school to school. With practice normally scheduled between February and May the harvest season was often missed, which meant that companies in the agro food sector who need to employ much seasonal workers in these periods actually missed out on an opportunity to involve more students in the real work. The same could be said for tourism where the high season is either in summer or for some in winter. According to the MoE there is flexibility to move the practice periods and the February-May timetable is only indicative and schools can request from the Ministry to move the periods for practice.

Every school has in average contract with three companies for practical training. However, these are often not the representative for local economic development. With large numbers of SMEs all over the country, these are still the most likely workplaces for VET school graduates. This would therefore imply a much higher number of companies for practical placements per school. Conditions of agreements between schools and enterprises are not efficient in terms of motivation of all parties: schools expect that enterprises would host internships and pay to internees and schools, enterprises expect to receive some benefits from government like exemptions or tax allowances, pupils expect to get paid and get in this way stimulated to learn and work.

5.4 Staff capacities have been updated and improved

In terms of updating the staff capacities of the VET schools the State Programme has only been partially successful. In all schools staff participated in the periodical compulsory staff training provided by the Azerbaijan Teachers' Institute, and short courses were organised to introduce new curricula by the Centre for VET Development and the Ministry, but overall the majority of the staff does not seem to have profited from any staff training. The staff in VET schools can be divided in teaching staff, including general education teachers, special subject teachers and production masters in charge of the practical training and non-teaching staff. Within the schools staff is updated on new developments through internal processes, e.g. when new

textbooks were introduced. In one case in Belosuvar the Azersun holding established a programme to introduce the most promising teachers to the modern production practices.

Many teachers have not been in companies for quite some time and it is important that they become familiar with modern production processes. The current system of supply driven courses by the Azerbaijan Teachers' Institute does not really meet the specificities of VET and it is unlikely that a move towards a modular based retraining system that is outsourced will actually change that. VET teacher training and retraining needs an approach that is closer to adapted pedagogical approaches to help students developing their professional competences. Sharing expertise with experienced colleagues from successful schools and from companies would need to be stimulated more. It is also important that experience is disseminated with student centred approaches and teaching modular curricula that are often interdisciplinary.



Computer operator laboratory in Vocational Lyceum No 3 in Ganja

Group work helps the students to develop problem-solving skills as students can learn from each other

The ETF survey shows that the average age of teachers lies around 47 years of age, but there are variations between schools. Younger teachers can be found for ICT and language training. In schools that have been least affected by the State Programme, the average age is considerably higher as our survey shows. In general the teaching staff is aging. Three years ago a strict age limit was introduced for teachers, which has led to a wave of retirements, in particular among production masters. They are difficult to replace as private employment often offers better working conditions than schools, where salaries vary between 120 and 180 manat per month. This makes the average salary for production masters far lower than the salaries of general education and special subject teachers. The fact that they need to be full-time employed, further complicates the problem. Experienced production masters are now often replaced by graduates from universities without their practical skills. Many vacancies seem to remain unfulfilled. Better salaries and more part-time employment as well as closer links with local enterprises can help to improve this problem.

Most of the schools we visited were vocational lyceums where the majority of staff are teachers of general education. The workload of general education is very high in these schools, although they are often unable to meet the standards of schools for general secondary education and only few students make it to higher education.

Relations between students and teachers of vocational education enterprises are also of great interest. As a whole, they assess the teachers' knowledge and pedagogical level as being satisfactory. Only those being trained on computer programmes put high marks to their subject teachers. As to relations between students and teachers: the matter is students do not like theory and from this point of view are closer to their production foremen and can communicate more easily with them.

A better educational quality of vocational education with corresponding better outcomes highly correlates with an improved situation in schools. The schools which benefitted from all parts of the programme report significantly more 'many and positive changes' in the working conditions. Obviously renovated buildings are seen as a main driver for better working conditions of the teaching staff. This strand of the reform programme

influenced as well significantly the teaching and learning process. Schools stress significantly a strong relation of the positive improvements to a comprehensive approach comprising the renovation of buildings. But not only staff in renovated schools was positive about the improved conditions.

Nevertheless, it is worthwhile to mention how often the VET school staff still mentioned 'the better times for VET schools in the previous Soviet Union'. This could only be explained with the advanced age of the staff which nearly entirely remembers the previous times but as well with the experience of the VET experts during the last two decades characterised by tremendous decrease of institutional performance in VET delivery with serious consequences for the reputation of VET.

In spite of the limited autonomy of VET schools, good school management makes a huge difference. We visited a number of schools where new directors and their deputies had been nominated recently that were able to create a very dynamic atmosphere in schools that clearly stimulated school development, better links with local companies and less traditional teaching methods. However, managers need to be supported with a competence development programme.

5.5 VET has become more attractive and offers better opportunities

There is overwhelming evidence that the State Programme has helped to put VET is back on the agenda. The State Programme considered from the very first moment the *human capital development needs* of the country. Beyond booming Baku regions require restructured VET institutions in order to cope with present and future human capital demand. The same refers to *capacity building* which has been part of the reform design, independently from implementation and current state of the art of the different VET institutions.

The *regulative framework* has been substantially *updated* and the content of VET is changing. Some *55 new curricula and 30 new textbooks* have been developed. The *new curricula* and qualifications are *based on identified labour market needs*. A *proposal for a national qualifications framework* has been prepared to create a coherent system of VET standards that will be internationally comparable. *Two completely new VET centres* provide a new model for VET providers with strong stakeholder involvement, which should be systematically evaluated and used to strengthen further innovation and VET system reform. Beyond the centres there are many other good examples of school-business cooperation. Our survey shows that the vast majority of schools have seen improvements. Applicants for VET have increased, and there are more applicants than places in the system. Companies are more interested to work with the VET system. The transition from school to work has improved; 37% of graduates are finding suitable employment while 30% go to the army. This is an enormous improvement in comparison to the transition from school to work survey done in 2005 by the ETF and the Scientific Research and Training Institute of the Ministry of Labour. The Ministry has started to advertise the new VET system and international donors are interested to contribute to the further development of VET.

The State Programme managed to save the existing VET system, but this first wave of reforms did not go far enough to modernise the system. Most schools remain in poor condition. Dormitories are still occupied by IDPs. Most teachers are over 45, and especially in the poorer schools many are demotivated. They have been trained in the Soviet era with strong nostalgia for the past. A particular problem is that salaries are too low to attract production masters from the private sector. The training for teachers is not adapted to specificities of VET. Most teachers have not visited enterprises recently. A large proportion of school staff is not teaching. Existing schools are small in size with less than 300 students. They have cemeteries of obsolete equipment and vehicles from the Soviet period that remind them constantly of another era. There is not enough new equipment for practical training and money for consumables.

Transition from school to work improved but is not good yet. Many boys are not even able to complete their practice due to military service. There has been an important but still modest increase in participation in VET (from 13,000 per year in 2007 to 18,000 today) considering that 81,000 youngsters (2013) are leaving

education without any specialisation while 51,000 are going to college or university. Good VET schools lack the space to grow. The VET system does not offer enough opportunities for girls – which are only 30% VET students. There are more adult learners in VET but almost no flexible provision to attract adults.

In spite of new curricula, changing profiles is not easy. Some rigidity in planning remains and labour market information should be better used. The system has to become more responsive to learners and the economy. Entrepreneurship is not developed. The quality of the practical training remains poor. There is a need for better coordinated approaches. This is not only an issue for the MoE. The national and regional cooperation between public bodies is weak. The problem is for instance demonstrated by the diffused labour market information, the occupational standards without follow up. The initiatives for NQF and workforce development agency that do not advance prove the fact that stakeholders from private sector practically are not really involved in VET governance.

6. RECOMMENDATIONS FOR THE FUTURE

This chapter consists of a general part and three different scenarios/options for possible VET system developments. It should support further decision making about future VET reform based on the findings and critical points of the reform until 2012. It might further contribute to EU decisions for support to the country's VET system. The chapter draws attention to three different levels of VET system, which are of overall importance for VET reforms, because strategic functions, new tasks and needs for *capacity building of the* different VET system levels have not been sufficiently considered/implemented during the last reform period and new institutional arrangements might be suitable in the future (see box below).

Moreover, systematic consultation and participation of the below mentioned levels in planning and designing new reforms and innovations are warmly recommended in any further reform attempts. Identification with objectives and motivation for innovative action is mostly based on such inclusive strategies and makes implementation much easier:

- the *decision level* – most of all the MoE, but other ministries as well outlining employment, economic etc. policies;
- the *intermediate level*, like specialised VET institutions at central level and regional bodies involved in VET system development; and
- the *micro level* comprising school managers, teachers and trainers.

This is why they must be better considered in future reform attempts in a sense of who is doing what and who needs support in what kind of tasks of reform implementation. Reforms are seldom an exclusive question of mobilising correspondent resources but as well how processes are planned and initiated and what capacities are available on the corresponding level of the VET system. Only the combination of sufficient resources, inclusive strategies fostering ownership, sound capacities and flexible modes of monitoring and steering will lead to successful and sustainable results of reforms.

It requires a sufficient stock of well working staff and a clarification of roles: a MoE is not an implementation agency, but is responsible for new policy outlines of reforms. The ministry is responsible as well to ensure that stakeholders involved in VET are sufficiently consulted prior and during the implementation process. Moreover, the MoE should develop clear guidelines for the Teacher Training Institute, the Institute for Educational Problems, etc. about their additional tasks and functions in a reform process.

Finally, the MoE must rely on intermediate bodies in the regions, which should be well informed (including regional labour market developments) and prepared to support reform implementation being a competent dialogue partner for the different VET schools. A reform is only as good as its preparation in terms of consultation, information and cooperation between VET stakeholders. This implies that regional entities should not only administer new regulations but proactively implement them together with the schools. Capacity building is key in such a context.

A **national VET council** is a suitable instrument to involve stakeholders of the civil society in the VET system development. VET differs from other educational sub systems and is more directly related to the economy. Most of all employers and trade unions have useful information about the ongoing changes in the world of work, in technological developments and on markets. All these areas are strongly influencing the VET system development. Such 'voices from the ground' authentically report about new contents and arrangements required in VET programmes and systems.

Such a council should have an advisory function for the Ministry of Education including initial and continuing VET. Beside of employer's and trade union's representatives other ministries such as agriculture, economic development and labour should be represented in this body. Moreover, representatives from training providers and a representative of the students are useful sources for information and advice.

An independent council requires a permanent secretary outside the Ministry of Education and the council should be convened at least for times a year. Typical areas of advice are emerging business areas, changing technologies and consequences or education and training, optimised allocation of resources, better education and business cooperation in VET and skills development in the regional socio-economic context.

In Georgia, the main activities of the council include developing proposals and resolutions related to the VET strategy and its action plan and forming working groups and inviting independent experts to study VET issues and frame recommendations.

6.1 More recommendations for all scenarios

The overall objectives for a future VET system reform should be to strengthen the quality of VET delivery and enhance the employability of the graduates. The latter objective must be based on evidence of regional labour market research, which identifies the major trends of human capital requirements according to different regional socio-economic developments. A third overall objective is reforming towards a more extended VET system with increased enrolment/participation, because too many young people are leaving the education system without any employable skills profile on ISCED 3 and 4 levels. This is a time bomb for the future of a rapidly developing country⁴ and a good argument for additional VET offers. This issue will be further developed in one of the scenarios below.

Before we go into detail, it is important to be aware that VET is more expensive and complex than general education, as it may require special equipment, specialised teachers, more space, and arrangements with companies. Nevertheless, there is a general agreement among education experts that secondary education expenditure should be covered by the State in order to ensure individual development perspectives for all. Moreover, well educated people pay more tax revenue back to the government.

The aim of modern VET is not teaching students to reproduce skills and behaviour but developing competences for individuals that are able to act and can do skilful things in the world of work on a higher level of productivity. This often requires a combination of learning activities that go beyond traditional class room settings and which should include sequences of work based learning in enterprises. The higher costs can be justified because VET is on one hand a career choice rather than a last resort for lack of other opportunities. On the other hand modern economies require a considerable share of labour force with ISCED 3 and 4 qualifications.

⁴ South Korea's successful and rapid development is explained with heavy investments in different educational sub systems always in line with the overall economic development stage of the country. EU benchmarks up to 2020 are 40% higher education graduates among the age groups up to 35 years and reducing early school leaving to 10%. This implies as well that 50% of every age group should acquire a qualification on ISCED 3 or 4 level. Current enrolment rates in VET crossover all EU Member States oscillate already around 50% of total secondary enrolment.

6.1.1 Strengthening private sector involvement – better perspectives in funding?

All different scenarios for future VET system development rely on a *stronger involvement of the private sector in the planning and delivery of VET services*. This could be through *sectoral bodies* supporting the planning and the identification of qualification requirements, through much more training of students *in private companies*, on-the-job, and through the provision of training in private training centres.

So far, there are only two *private VET schools* established, and there is a possible scope for further development in bigger cities. There are already many providers of short courses which are not accredited, but could possibly be involved, if they would meet national VET standards. It is important to extend on-the-job training/work based learning. Many companies are ready to offer more training opportunities and to contribute to funding, because it suits their interests. But only in a very few cases are companies convinced that all the training should be done by them alone, and that training in schools is unnecessary.

Senior staff from Azersun holding, the Aznar pomegranate processing plant, and the METAK piping company stated that although their companies are doing more training on the job, they struggle dealing with all aspects of training and would like to see more targeted training in existing VET schools. In their view, their company can provide a *practical specialisation* to the students, but *students need a broader orientation* beyond a specific job in a company in order to ensure labour market mobility and that they can deal with complex tasks. Private provision or per capita funding (see box below) per se is not a solution for improving the quality and the capacity of the VET system – it depends on how private provision is agreed and designed.

Per capita funding in education is considered as a stimulating instrument for creating more competition between educational institutions and to shift from a mere input based educational approach more to educational outcomes. This type of funding is widespread in general basic and secondary education because the cost structures in these educational sub systems are relatively easy to determine.

On contrary, cost structures in higher education and VET are very different according to the different types of training programmes. While an accountant could still easily be trained using some textbooks, paper and traditional class rooms, the situation for electrical welding and modern car mechatronics is completely different because well working learning environments in these areas demand for heavy and capital intensive investments in workshops. The costs for other training programmes (for cooks, tailors etc.) are somehow in between the above mentioned two extremes. Analysing costs of different VET programmes implies a lot of administrative work.

Depreciation costs of capital intensive learning environments play an important role. When they are not sufficiently considered, per capita funded schools run a high risk being mid-term structurally underfinanced. Moreover, if per capita financing does not take in consideration the different cost structures of VET programmes, there is a high risk that schools shift their offers from high to low cost offers.

In Georgia, a costing study revealed that only five out of 24 VET courses analysed had a total cost per student below the value of the voucher issued by the government. All other courses had higher costs and the costs per student varied widely between the analysed sectors and between the providers. In these circumstances, public VET colleges are likely to try to accommodate their actual training costs within the resource bracket made available probably by sacrificing training inputs. Per capita funding of VET schools is meanwhile suspended in the country.

In Europe, high quality performing VET systems include a substantial role of private companies in the delivery. Nevertheless, they all follow *public training standards in order to ensure quality, labour market relevance and mobility of the workforce*. In mixed delivery systems with private and public providers and in systems with per

capita financing in VET⁵, private training providers tend to focus on training in low cost professions, such as accountant, commercial trades etc. which might lead to imbalances in the supply of qualified professionals. In case companies or private training centres offer training in high tech professions like modern welding, car mechanics, CNC machine operator etc. it must be decided in advance, who will cover the costs for such capital intensive, high cost training provision and if national standards should be applied even if such training takes predominantly place in the world of work.

Introducing *more private provision does not mean that the costs can be automatically shifted to the private sector* – most of all in countries which have not yet developed systematically a training culture in enterprises. If the costs are shifted to the learners, there may be little demand for expensive training in strategic but capital intensive professions, which Azerbaijan nevertheless requires for its highly dynamic socio-economic development. These issues must be considered carefully, including the question if high costs for initial training could be shifted to private firms offering respective training while ensuring that public training standards are respected (with all institutional consequences for quality control, monitoring, assessment etc.). The consequences of private delivery and spending on equity and access should be considered before the next reform, because an under-financed VET system is counterproductive for successful and sustainable development in Azerbaijan.

In order to expand the offer, the future VET system in Azerbaijan could very well be a mixed system with private and public providers, with increased role of companies in on-the-job training. But it will not be a system that can work effectively, if it is completely regulated by the market. In order to guarantee the needed skills for the future, the *VET system needs planning and needs quality assurance and enhancement processes*, based on clear expectations that are defined in national VET standards. Experience from Georgia that rapidly introduced private provision shows that the institutional setting for quality assurance processes needs to be strengthened. The National Centre for Quality Enhancement is an autonomous public body and responsible for external and internal Quality Assurance processes at provider level, and the development of national VET standards that are part of the NQF. Public funding in Georgia has been made available to public and private providers that meet quality criteria.

Flexible legislation could *foster education and business relations*. VET and sector councils are an instrument to promote such cooperation. A *national VET council* comprising trade unions and business representatives and/or sector committees and different ministries with well-defined duties and obligations could facilitate more cooperation between VET institutions and the business sector. Moreover, such a council could have a strategic role in continuous innovation of the VET system and in raising and promoting the attractiveness of VET among societal stakeholders. Work has started to explore the roles of *sectoral skills councils* in the anticipation of skill needs, the development of occupational standards, the development of qualifications (educational standards) and curricula. In cooperation with these bodies different incentives to stimulate company involvement in VET can be analysed, aiming at sustainable rather than ad hoc solutions.

The perspectives of VET schools for income generation (see box below) should not be over-estimated. Following international expertise, more than 15-20% of income generation is not realistic, if schools further stick to their assigned tasks. If schools don't stick because of income generation to their core tasks (delivering educational services), there is a high risk that schools distort the market and the local economy in delivering services such as, for example, beauty or maintenance, because schools are subsidised by the public and are able to deliver cheaper products and services than the local economy can do. Such market distortions have negative consequences for envisaged better education and business relations in VET and put SME in high economic risks.

⁵ In Georgia a costing study revealed that only five out of 24 VET courses analysed had a total cost per student below the value of the voucher issued by the government. All other courses had higher costs and providers tend to exclude cost intensive sequences of such training.

Income generation in schools is seen as an alternative to optimise resources for training programmes, higher teacher salaries and for further improvement of the educational infrastructure. There are no systematic evaluation reports about advantages and disadvantages of income generation by schools. However, experts stated that more than 15-20% of additional income relative to the school budget is a certain limit in the sense that the schools could continue to cope sufficiently with its assigned core tasks. This means that a teacher who works 40 hours should not engage with more than eight hours in income generating activities.

It's a relevant distinction if the school sells educational services for income generation or other services and products like hairdressing or cloths. The first area refers to the core tasks of the education institutions, the second area (products and services) are normally produced by the business sector.

Schools can sell these services and products to a lower price as the business sector, because teacher salaries as a main source of costs are paid by the public. Such a market intervention may have distortional effects on the local economy and create mid-term obstacles for a better education and business cooperation. Moreover, schools run at risk to not sufficiently concentrate on the assigned core tasks.

In Montenegro, some schools generate even 30% additional income relative to their public budget. The Law on Education and the Law on Vocational Education contain provisions allowing educational institutions to provide such activities. Decision about such additional activities is taken by the governing board of the school and approved by the Ministry of Education. Decision on other activities of public institutions includes the plan for expected income and plan for using the funds for improving educational work of institutions. Income generating activities should not interfere with the traditional assignments of the schools. Tailor, hairdresser, carpenter and plumber services have been sold in order to generate income.

6.1.2 Improve planning and implementation of VET reforms through a participative approach

A lesson learned is about the *future planning and design of a new reform* to cover better horizontal and vertical coherence, better linking new VET strategies, based on an *explicitly formulated vision of VET* comprising indicators⁶: New VET reforms must be *coherent to other sector policies covered by different ministries* of the government (horizontal coherence) and they must be *vertically coherent with all stakeholders* involved in the VET system. This requires a policy planning process and reform design based on several stages of stakeholder participation and consultation. Contrary to other educational sub-sectors, VET is closely linked to business, technological development, markets, and issues of reputation from the perspective of parents and students. A new VET outline must consider these linkages and identify better the different interests of the players involved in the VET system.

Hence, a VET system reform is more than the improvement of educational infrastructure, teacher training and other VET system elements. Such 'hardware elements' must be complemented with a suitable 'software': reforms should deal as well with optimised relations among the stakeholders creating communication and cooperation channels between different players, including the social partners but as well the school directors, teachers and trainers which act on a higher performance level when the 'social climate' in schools improves.

A *monitoring and evaluation system* including indicators should be available during the reform implementation in order to collect relevant information for possible adjustments. Indicators developed in advance will make monitoring and evaluation easier and could be partly copied or further developed from good practice. This refers as well to the reporting of VET schools.

Sharing evaluation results on the performance of individual VET providers on a virtual platform or through an Education Management Information System (EMIS) may enhance the discussion about school performance and accountability for educational services which goes hand in hand with more school autonomy. It will foster

⁶ An indicator in the area of vision could state that the share of VET students compared to all students will increase in a certain period from A% to B%.

institutional capacity building which must be more demand driven: intermediate bodies like *regional educational bureaus* should collect information about the training demands from teachers, trainers and school directors and should promote school enterprise cooperation. For such issues they need additional assignments, probably more staff but also more autonomy, in accordance with their role as key implementation agencies.

VET is a good instrument to *support regional development*. This requires that decisions about VET in the different regions are based on regional economic and labour market developments. Hence, VET decision makers must also *cooperate with the national employment service*, which can deliver relevant data. It's from overall importance that future VET reforms are based on evidence about regional specific socio-economic developments. Launching additional (regional) labour market studies as recently commissioned by the MoE should prepare decisions about future VET reforms.

6.1.3 Support VET school development, adjust the school network and address staff capacities

A first step towards a new VET system is the *creation of VET centres of excellence* which cope through initial VET and continuing VET with skills development in line with the skills demands in the modern manufacturing and service sector, experimenting simultaneously with new forms of education and business cooperation. Such centres will have a strategic function for the overall VET system development in the country and would cover a specific segment of high quality training which is necessary in many sectors due to the rapidly increasing technological level.

They follow the paradigm 'less is more' and concentrate high cost training in a few places (with dormitories). The Centres of Excellence, that can build on the models of the VET centres in Gabala and Ismayilli and Vocational Lyceums n 3 in Ganja and n 4 In Baku should provide excellence at an international level. They can benefit from international cooperation with similar schools abroad to exchange experiences and develop their offer at an international level. The VET Centres can also be used to provide support to other VET providers, e.g. for teacher retraining and curriculum development.

The huge agriculture and small business (retail) sector will require mostly a lower skills level that could be covered by traditional VET schools. Based on a labour market forecast many *agricultural schools* may need to diversify their profiles as well as modernise the agricultural programmes. This would imply converting them into *local or regional training centres offering multiple profiles*.

The already recommended more intensive regional labour market research could have consequences in adjusting the existing school network (see box below). Outdated branches of VET schools could be closed and remaining VET offers could be integrated in the management functions of another VET school.

Rationalisation of the VET school network has different reasons. Three reasons are prevailing: minor resources for initial VET, declining demand from the learners and insufficient educational infrastructure including the buildings.

Ukraine adjusted its VET school network from 1200 to currently 900 in order to concentrate the available resources. Some VET schools have not been completely closed down. However, they don't offer any more programmes in professional areas where educational infrastructure is weak but continue in other areas. These VET schools could be converted in departments of other schools in order to save costs for administration and management.

Georgia follows currently a reverse trend. After closing down and privatising many public VET schools, the current public network comprises less than 20 schools. A lot of private providers and universities are offering VET programmes based on tuition fees. This impedes access of poorer young students to VET programmes and created a tremendous bottle neck. Hence, the new government gives high priority for more public funding of education and VET augmenting again the number of public VET schools.

Many private providers will disappear from the market because demand for their offers will decline and VET programmes offered by universities are partly seen critical, because these providers offer modules of higher education programmes as VET programmes. There is a high risk that such programmes are no related to practical skills for the world of work.

Teaching personnel and school managers are important frontrunners in any kind of VET reform. They require targeted further professional development actions and better professional career perspectives⁷ because they are important for implementation of innovation¹. The mere existence of a teacher training institute with supply driven training approaches does not solve emerging problems which might be triggered by a decentralisation processes, recommended as well in the scenarios below. *Capacity building and participative planning* methods including VET personnel is a cross cutting issue for VET reforms. Research about VET reforms in post-communist Bulgaria revealed that VET personnel have not been sufficiently involved in the design and the implementation strategies and resisted proposed changes. Hence, why should teachers and trainers proactively support the implementation of reforms, when everything has been decided without their involvement?

The staffing resources and framework for career development in the VET system could be reviewed in order to ensure an effective, competent and motivated workforce. There are both shortages and surpluses in the existing VET system. The current *student to teacher ratio* is relatively low, about ten to one. The EU average in VET is 20 % higher. The majority of teachers have their roots in the Soviet system, which is still their main reference. Only 41% of all *teaching staff* is under 45. Existing resources include a large group of general subject teachers, a small group of specific subject teachers and a large but rapidly ageing group of instructors for practical training that are extremely difficult to replace. This *distribution of staffing resources* may need to change, if VET becomes more focused on the needs of companies. Much depends on the amount of practical training that can possibly be done in enterprises, and on how many students would need to be able to continue their studies at (technical) universities.

6.1.4 Strengthen international cooperation and consider EU and international experience

International projects have had a beneficial impact in the first phase of reform, without creating donor dependency. Donors are interested to cooperate with Azerbaijan. International know-how and services could be used as an integral part of a future reform, in checking carefully *what kind of expertise from outside* is not yet available in the country, but *required for VET reforms*. This could go beyond the improvement of different parts of the VET system like curriculum reform, teacher training etc. Donor know-how could be used for

⁷ Kazakhstan raised teacher salaries by 100% taking into account their strategic role for increased quality in training programmes.

discussions about decentralisation, funding and cost efficiency, skills development in the context of regional labour markets or better education and business relations and for the promotion of linkages between national VET institutions with similar institutions abroad.

In any scenario that aims to reduce and minimise the size of the public VET system, we need to be aware that the training of professionals for strategically important sectors for the functioning of society has to be ensured. *Azerbaijan's VET system is already quite small by international standards.* Cyprus, a service economy, is the EU member state with the lowest participation in VET (12.8%) comparable to the level of participation in Azerbaijan, while the EU average is 49.6%. These higher shares of students in VET in the EU are required to cover the work force demand of the economy.

Azerbaijan's economy is developing very rapidly. It's not very likely that human capital requirements of modern structures of the economy could be mid-term covered by the education system in general and the VET system in particular. Hence, a country specific balance is required in:

- increasing the overall share of upper secondary students; and
- identifying a sound balance on upper secondary level between VET and general secondary education students.

Taking into account the experiences of the skills policies of rapidly developed countries, Azerbaijan should use its competitive advantage of a young population and available resources that other countries in a similar development stage do not have, and considerably increase investments in the education sector approaching rapidly a share of 6% spending of GDP in education. VET should play a more prominent role in a new education investment strategy.

6.2 Different scenarios for future VET system reform

Azeri decision makers have to decide about the mid and long term future of the country's' VET system. In general, there are three different scenarios which might be considered in the policy discussions. These scenarios are developed on the basis of the findings of the evaluation. They rely partly on 'most likely' assumptions, which must be underpinned with hard empirical data/evidence before any decision about further reform is taken. Socio-economic data like labour market developments, enrolment rates, demand and supply and unemployment rates in the context of the structural changes in the different economic sectors will play a prominent role.

Scenarios describe options. However, change and innovation in the reality is more differentiated and complicated in implementation. This is why scenarios should be used only to support main lines of policy discussions and arguments but not the future reality itself in terms of consequences for staffing, equipment, number of VET schools, etc.

If a final decision about one scenario is taken, all priorities within the scenario must be listed up and calculated in detail cost planning, highlighting additional expenses not covered by regular running costs of the system. Correspondent planning techniques are available and local staff should be familiar with them. An option would be to select two or even three scenarios and calculate costs for all different options.

The table provides an overview on key issues in three different scenarios, which are explained below.

- The first scenario will extend the participation in the existing VET system and possibly the number of VET institutions according to development trends in EU Member States to higher VET enrolment.

- The second scenario will remain the system quantitatively more or less like it is with all risks for the future human capital requirements of a rapidly growing economy operating more and more with capital intensive and high quality products and services.
- The third scenario describes a shrinking VET system with less students and VET institutions which would have serious consequences for other educational sub systems in a country with considerable demographic growth.

All forecasts about developments on markets, labour forces, economic growth rates etc. rely on data available, which is used in (econometric) modelling for looking at future *possible* developments. Insofar, there is a certain risk for considerable error, based on assumptions which will not happen in the future.

Overview of different scenarios of possible VET system developments

	Participation in VET	Required resources	Public and private delivery	Publicly agreed standards	Future ISCED 3 and 4 demand	Access/coverage	Decentralisation required
Scenario 1	extend	considerably more	yes	yes	covered	better	yes
Scenario 2	remain	more	yes	yes	partly	same	yes
Scenario 3	shrink	remain	yes	yes	not covered	worse	no

6.2.1 Scenario 1: VET as economic driver

Why?

This scenario is most likely to *support* best *Azerbaijan's socio-economic development* with skilled human capital. Scenario 1 is as well confirmed by the results of the school questionnaire: only 17.2% of the schools reported that the situation improved substantially after the end of the State Programme although the vast majority of the schools reported improvements, however, only every fifth school considered the situation as substantially improved in order to cope with future human capital challenges.

There are other reasons for favouring this scenario: In the future, the oil price will remain high a sound income guarantee for the countries' welfare. Infrastructure will be further improved and extended and capital intensive products for business and private consume will constantly be imported. Production of new and distribution of imported products will attract more firms from abroad to invest in the country. Processing, repairing and maintaining capital intensive high tech products will play a key role, which requires qualified workers on ISCED 3 and 4 levels.

With the economy growing and considering that unemployment stays relatively low, the *available labour resources will need to be better used*, which means more investment in skills. The employment prospects for VET students are expected to improve further. Azerbaijan cannot afford that half of its young population leaves the education system without any specialisation for the labour market. Investment in specialisation is also important to avoid that the demand for skilled labour will need to be covered by increased migration, like in the Gulf countries, where migrants vastly outnumber citizens. The *VET system is seen in a prominent role*, because it provides on a sound performance level skills which are urgently required in a rapidly expanding manufacturing and service sector. Educational spending must then follow new and increased human capital requirements, which cannot – qualitatively and quantitatively – be covered by the existing VET system.

With an increased demand for VET graduates from the private sector the *active involvement of the private sector will become easier*. This means that more on-the-job training can be offered, and employers are more willing to engage in a dialogue on the skill needs for VET.

We make a very rough estimate that for this scenario *doubling the capacity of the existing VET system* is necessary. This estimate is based on the demand and supply arguments. Given that Azerbaijan is not a low labour cost country companies that want to be competitive need to focus more on quality and productivity gains and increasingly need qualified professionals. On the supply side close to half the young population leaves secondary education without any specialisation today. If 40% of them would go to higher education, in line with the EU benchmark, this would mean twice as many students, and colleges and VET schools could also be expected to double their share to provide opportunities for the remaining students who now leave secondary education without any specialisation.

What would be needed?

This scenario would require a *considerable investment* (physical and human resources) in any infrastructure of the existing VET system including a restructuring of the school network which is not comparable to the estimated 30 million manat foreseen so far in the State Programme, on investments and through international projects. A *complete modernisation of the VET infrastructure* should comprise as well *dormitories* available in *selected places* across the country, most of all in Centres of Excellence – according to regional labour market requirements – to be set up in different professional areas/regions.

Any attempt to make an estimate of the necessary costs at this stage is premature, as it depends on which existing schools offer a good basis for modernisation and expansion, whether some completely new schools are needed, how much training can be carried out by private providers and companies and which of the existing non-restructured schools should be closed down or merged. The total costs may easily require ten times the total amount invested during the state programme 2007-2012 for investment in buildings and restructuring and other measures, even if part of the VET expansion can be obtained through more private delivery⁸. The ETF is ready to assist the MoE to prepare cost breakdowns for different scenarios if this is requested.

In this expansion scenario *companies are actively engaged in VET* and are therefore interested in participating in policy discussions, the question about the *funding mechanism* will automatically come up. There are three alternatives: funding private providers with public funds (per capita), which must be based on reliable cost estimations of different VET offers which are not easy to obtain, funding by the learners or a mixture of both. In any case such options should follow publicly agreed VET standards and remain affordable for more disadvantaged groups of the society.

How to implement the reforms?

With VET becoming a clear priority the national government will need better coordination between ministries with specific responsibilities for the ministries of economic development, labour, finance and line ministries, beyond the education ministry and a strong dialogue with social partners. Quality of VET will need to be strengthened, and incentives for company involvement need to be developed, in particular for SMEs. There will be substantial investment in physical and human resources. Such a reform takes at least ten years of time and cannot be exclusively steered by the MoE. On contrary, the education ministry would be the initiator and moderator of the overall process of reform and innovation, relying on its own competent staff but also heavily on intermediate bodies on the national and regional level, which report to the ministry and to a national VET council. Such a council should include main representatives from the business sector and the trade unions in order to foster ownership and accountability of stakeholders involved in VET school programmes.

⁸ At a first glance it seems to be a large amount of money. However: 'So far, 3.449 billion manats has been allocated to the investment spending from the state budget of Azerbaijan in the first half of 2013, which is 37.2%, or 935 million manats more as compared to January-June 2012, Azerbaijani Minister of Finance Samir Sharifov said at a meeting of the Cabinet of Ministers, dedicated to the socio-economic development in the first half of 2013'. (Azernews, 25 July 2013). Hence, if VET reform is an absolute priority in national politics correspondent funds should be available.

Such modes imply as well more and better qualified personnel in intermediate public bodies responsible for standard setting, quality monitoring, certification of providers and dissemination of public funds. Simultaneously regional educational bureaus have a relevant function in supervising VET centres, administering and canalising resources, cooperate with the employment agency in data generation for analysis of regional labour market development, managing required capacity development needs, promoting enterprise school cooperation etc.

Widening the autonomy, responsibility and accountability of VET providers can have a positive effect on linking the provision to the local needs of the labour market and cooperation between schools and local communities. Teachers, trainers and school managers must be substantially further trained on the background of new promising professional careers. An increase of teachers and trainers with a technical profile (and experiences in the economy) is urgently required.

6.2.2 Scenario 2: Gradual modernisation and consolidation

Why?

VET is not seen as essential for economic growth, which has been the main perception so far. VET is gradually modernised, the economy develops, with VET modernisation concentrated in the most important growth sectors in cities. There will be some new initiatives. Private provision could develop in close relationship with private initiatives of larger companies. The public VET system remains with traditional sectors, with a detrimental effect on the reputation of public VET. The *sectoral steering of VET* in particular *from growth sectors* will become stronger than the regional approach, creating a diversification that will limit mobility and *create more inequalities* in the system.

This scenario assumes that *participation in the VET system will not be encouraged* and the VET system will remain stable in terms of participants and institutions. This means that most young people will continue to enter the labour market after compulsory education without acquiring job specific skills in a world where skills levels are constantly increasing fostered in Azerbaijan by a dynamic socio-economic development, which has increasing consequences for skills upgrading that companies and individuals will have to fund and undertake themselves.

Shortages of suitable labour force could be partly covered with higher education graduates like in other post Soviet Union countries but always with a high risk that the skill profiles of such graduates are missing practical knowledge and capabilities. Moreover, the returns on investment in higher education would considerably shrink being employed on a lower level and over spending in higher education by the government and households does not lead to correspondent returns on investment.

What would be needed?

Even if the VET system remains more or less like it is in terms of quantitative aspects, considerable more resources are still required in order to *improve the whole educational infrastructure* and update the skills level of teaching staff and school managers given the status quo in the VET system, where only 25% of the current VET schools offer modern conditions. A rough estimate would be therefore that at least four times the amount spent during the implementation of the State Programme would be needed to complete the reform, depending on how much training could be provided by private providers and companies.

How to implement the reforms?

Policy makers must *discuss* more severely in Scenario 2, if and *how certain VET services* in cost intensive professions *could be outsourced to companies or private providers* and what would be the consequences for overall standards, access and equity. The existing school network is in general not able to cover sound quality levels in cost intensive professional areas of initial VET, due to the existing equipment, which is either scarce

or completely outdated (welding, car mechanics, electronics etc.). This is aggravated by the skills level of the teachers. It is clear that this scenario does not simply imply continuation of the status quo, and will still *require strategic decisions* and considerable investments for the upgrading of schools.

A mixture of public and private delivery would be possible. However, the same issues will remain: who pays how much for private training delivery and how to ensure that such training follows national standards and what are the consequences for access and educational equity?

Donors may be much less interested in investing in this scenario, and will need to be convinced that their contribution is still important for the transfer of know-how to modernise VET.

Looking at the countries' rapid development, it's highly questionable, if future skill demands on ISCED 3 and 4 levels could be covered by the local workforce. Most likely, the importance of migration will increase in this scenario in order to cover certain workplaces with skilled workers, but with negative consequences for the employment of the Azeri work force. From today's point of view and from the database it is not predictable, if and how much skill gaps in different economic sectors will increase.

In Scenario 2, participation in VET will remain modest, more or less on the level of today, with all consequences for the human capital endowment of the workforce, such as:

- low-skilled jobs will be up to a certain level more and more replaced by machines;
- transition problems of low-skilled workers to employment are higher;
- considerable shares of low-skilled workforce widen the income gaps in societies with all consequences for social security systems;
- low- skilled workers do not motivate much their children for better educational offers contributing to a vicious circle.

Decentralisation combined with legislation towards more flexibility would be in the scenario an issue as well. In terms of socio-economic criteria the country's *regions* are very *different* with consequences for *skills requirements*. The expectation in this scenario is that sectors will get a stronger say about what kind of VET will be needed for their sector and in some growth sectors they may decide to develop VET provision without a strong involvement of the MoE. But even in this scenario it would be good to determine mechanisms how skills demand on regional level could be identified and transferred in training offers of regular VET schools or a centre of excellence created in order to cover better skills in the modern economic sectors according to the regions.

Regional education bureaus but as well regional VET committees are appropriate ways to foster cooperation between the schools, local authorities and the business sector. The regional bureaus should systematically support a constant dialogue between VET centres and the business world. This requires as well a correspondent framework (legislation and assignments) and capacity building.

6.2.3 Scenario 3: Radical rationalisation of the existing VET system

Why?

VET is too expensive and government favour general secondary education which is cheaper. VET schools if properly funded will require more funds per student than general education schools. There is scepticism about the added value of the VET sector. Still many students are not able to find suitable employment in their field of studies. Most VET schools offer very poor conditions that are not at all appropriate, and the present approach to VET is outdated. It is necessary to *improve the efficiencies of this ineffective training system* inherited from the Soviet Union, close down run-down schools with obsolete equipment and demoralised staff.

It has no place in modern Azerbaijan. *Preserve only those schools that have been recently restructured with potential and good links with enterprises*, and possibly extending their size and let private companies and private providers take care of the remaining needs for intermediate skills training. Those students that would normally go to VET can be channelled to improved general education schools, offering world class secondary education in accordance with a modern National Curriculum.

This may sound familiar, but looking at the reality of the country, this scenario is not very likely. If the number of VET students and VET institutions diminish, there should be a policy in place to shift relevant and cost intensive training more and more to the private sector, because training demands will not decrease but will most likely be covered by other actors (like firms or private providers). However, a question will be raised: how to ensure quality in private sector training and what are the consequences for workforce mobility if training does not follow general standards. Moreover, it must be discussed what would be the consequences for investment strategies if skill gaps occur and what are the possible consequences for other educational sub sectors.

What would be needed?

The current VET system is underfunded. Even a shrinking VET system would require at least the same amount of financial resources and a more technically oriented staffing. Due to the deficits in the existing VET infrastructure the current spending on VET could be easily absorbed from a smaller system as well for updating the educational infrastructure, so there will be no savings.

How to implement these reforms?

In nearly all countries, education levels are increasing because the population asks for more education and respective policies are supporting this trend. In Azerbaijan, a shrinking VET system would most likely have consequences for general education in terms of higher demand and enrolment rates.

Lower enrolment rates in VET might affect the low performers in the education system, which partly enrol in VET – negative consequences for access and equity are predictable.

Decentralisation is a minor issue in this scenario, because it's more likely that a shrinking school network could be managed by the existing administrative structures.

6.3 Next steps

We hope that these three scenarios in this draft can stimulate internal discussion in the MoE and among other stakeholders of the VET system, including representatives of the civil society. We are available to answer any queries and to elaborate and adapt the scenarios if needed and to discuss them with decision makers and stakeholders at the validation seminar in December 2013 and in any other opportunity.

Moreover, the ETF could provide in 2014 capacity building for local staff in coping quantitatively with the different scenarios presented in order to further support evidence based decisions about the future development of the VET system in Azerbaijan.

APPENDIX

Results of the questionnaire answered by the Azeri VET schools

This annex to the ETF evaluation of the Azeri State Programme has two main parts. The first one compiles the distribution of answers to different questions of the school questionnaire which contains various categories (mostly on a nominal and ordinal scale level). The questionnaire is enclosed. The second part refers to the main cross tables which have been produced by an ETF statistician and analytically tested using common software and analytical test tools of social sciences.

The results of both parts are reflected on different pages of the State Programme evaluation. Nevertheless and triggered by reasons for more evidence and better decision making for future processes of reform and innovation in the Azeri VET system the entire compilation of data derived from the school questionnaire could be useful for the countries' decision makers. This data is presented in this paper in a structured manner.

School questionnaires – descriptive statistical results

A questionnaire comprising 30 questions (Q 1–Q 30) has been sent to all VET schools¹ in the country. Later on variables from the different questions have been deducted in order to analyse with cross tables and correspondent statistical test, if there are significant correlations between different variables e.g. the renovation of the schools and the quality of the programmes offered. However, the first part describes descriptively the distribution of the answers in certain pre fixed categories of the questionnaire.

Some 87 from 107 VET institutions sent the questionnaire back (= 81.3% return rate), which created a representative sample.

The 87 institutions reported 27,188 enrolled students in the school year 2012/13. VET is male dominated: less than one third of all students are young women (= 31.7%).

Only 40.5% of the teachers are younger than 45 years, which confirms the issue of the country wide aging of teachers. Additional information provided by the MoE revealed that by 1 January 2013 the total number of engineering-pedagogic staff at VET institutions constitutes 4,014 people – 1,470 teaching staff, 1,772 production masters, and 772 administrative staff.

More than one third of all teachers in VET institutions are teaching general subjects (= 34.1%).

All schools are public institutions. However, the two new VET centres follow a slightly different regulation.

Question (Q) 1. The schools benefitted in different manners from the State Programme:

- 19.5% reported a benefit from new buildings/rooms (which is not a very high share according to what we have seen looking at buildings in a bad shape).
- However, 69% of the schools benefitted from better educational infrastructure.
- And 70% of the schools benefitted as well from new textbooks, internet connection etc.
- Teacher training is at least advancing. 51.7% of the schools reported that they benefitted from such trainings. 'Benefitted' was introduced in a very vague manner – could also mean that they participated in teacher training.
- However, only 19.5% of the schools benefitted from all strands of the programme, despite of the fact that a reform would have require a comprehensive approach to the needs in the schools. This share is

identical with the share of schools which reported that they benefitted from new buildings, or the other way round: approximately 20% of all schools have been approached comprehensively in their view.

Q 2. In 35.6% of the schools no assessment about the institutional needs took place. There are reasons for that are unknown (may be a certain repetition in reviews articulated by the schools with assessment). The rest of the schools reported assessments, which have not necessarily led to new infrastructure and buildings (planned but not implemented). Obviously in most of the cases the assessment has been carried out by representatives of the MoE. However, it's not clear if the assessments always led to a situation where the desire and needs expressed by the schools have been covered. Some comments to this question stated that more procurement for additional infrastructure and services is still necessary. This might be an indicator for a certain gap between assessment on one hand, but no correspondent action on the other.

Q 3. This question was not perceived by the schools as foreseen in the questionnaire (due to unclear formulation, translations etc.). It has been intended to ask schools about their involvement in the planning process of the reform and NOT in the possibility to express from the institutional point of view, needs, constraints etc. for new materials, equipment, funds etc. Only 13.8% reported that it was not possible to make proposals. However, the schools clearly answered the question from their different (institutional) focus.

Q 4. This question has been answered as well in the same focus as Q 3. The schools reported a variety of proposals they made in order to increase quality and the level of school performance in the future.

- 32.2% made proposals for improvement which corresponded to the needs of the learners.
- 17.2% referred in their proposals to the demands of the local economy.
- 39.1% of the schools linked their proposals to both of these areas.
- 25.3% made even proposals for the implementation of the State Programme.

Q 5. The majority of the schools (54%) reported that it took two years and longer in order to implement all changes promoted by the State reform Programme and even 17.2% reported a period of two years. However and compared to the overall six years of duration of the programme this sounds quite normal taking into account that one strand of the programme has been the physical rehabilitation of schools.

Q 6. Only 17.2% of the schools reported that the situation improved substantially after the end of the State Programme. This share is nearly identical, which reported in Q. 1 (19.5%) a benefit from new building/rooms. This is as well an indicator that a lot is still to be done in the existing school network, because the vast majority stated that the overall situation has slightly improved – an indicator that a new reform programme, with considerable inputs is required. This is reinforced by the problem that secondary VET enrolment in the country with 11% of all secondary enrolment is relatively low compared with EU VET shares amounting to approximately 50% of total secondary enrolment. However, the schools attested as well some progress. Only 5.8% of them stated that the situation remains similar compared to the situation before the State Programme.

Q 7. This question has been raised to preform not too much, the statements of the VET institutions in pre formulated answers. Hence, the diversity of the school perceptions on improvement is vast and notable accumulation of statements about improvements focus around the endowment of schools with technical infrastructure comprising ICT infrastructure. 47 statements in all three areas focus around these issues, followed by updated educational contents (14 statements), more efficiency in the education process (12 statements) and an improvement of the connections to employers (9 statements), which confirms good but not very frequent practice in school enterprise cooperation.

Some 51 statements did not mention a second or third area which has been improved. These schools mentioned only improvements in a single area. This is apparently an indicator that the above mentioned areas are from overall institutional importance for the performance level of the VET institutions.

Options like quality increase in training or modernisation of training a scarcely mentioned. This is another indicator that the institutional focus on scarce educational resources (which has been improved) is a dominant driver compared with the disastrous situation before the State Programme. Moreover, it's on the other side a reflection on the reality which sees not a simultaneous importance in 'educational software' like methodologies, institutional climate, knowledge management in schools etc. Hence, the 'hardware' aspect is prevailing in the statements of the schools.

Q 8. 75.9% of the schools stated that the improvements triggered by the State Programme led to better relations to the learners. It's more difficult looking at the relations of schools to the business sector: 48.3% of the schools reported better relations and only 19.5% of the schools said, that the relations to the local communities have been improved. The findings reflect a characteristic of the implementation of the State Programme: in its practical consequences it has mainly contributed through a better infrastructure to a slightly improved internal efficiency in the schools. The external relations still remain a relevant issue, which should be systematically considered in a new reform to be launched e.g. schools as a service provider for their local socio-economic environment.

Q 9. There are still bottlenecks for a better performance in the schools, which confirms that apart from a lot of achievements there is still a lot to be done. Some 32 schools mentioned outdated material and textbooks and 11 others poor infrastructure and utilities followed by 9 schools which mentioned a limited number of specialised textbooks. The refugee issue is pending in 6 schools and there is still weak social partnership mentioned by other six schools.

Q 10. The future improvement of external relations from schools is confirmed by the results of this question. Only 27.6% of the schools reported that they have still additional support from others. Most of the support comes from the business sector (training courses for teachers and instructors). However, the business sector has an ambivalent position reflected in this question. Not all enterprises offer further training for teachers and trainers for free – they demand as well money for such services.

Q 11. The scarce contacts to the business sector are confirmed by this question. Only a share of 5.7% of the schools stated that the amendments through the State Programme led to a higher demand of enterprises for educational services. However, 35.6% of the schools reported an increasing demand by the learners, whereas 8% registered no higher demand at all.

Q 12. Even after this first VET reform ever, the statements of the schools don't go in one clear direction. A share of 40.2% stated that it's possible to better adjust educational offers to emerging needs, 10.3% says no and the majority of 41.4% said that this is at least partly possible. There is still a huge gap between what is required by learners and the labour market and the potentials and performance levels of schools, which can only partly cope with these issues from the demand side.

Q 13. Nevertheless the vast majority of the schools (75%) stated that the VET school offers are now more attractive for the learners. Reason for that are updated equipment and programmes as well as ICT supported learning environments in some programmes. One out of four schools said there is no increased attractiveness. Reasons for this are a too low share of practical training and new equipment.

Q 14, 15 & 16. The State Programme had a lot of positive influence on different issues asked for in the questionnaire: 92% of the schools stated that the reputation and the attractiveness of the schools increased and 71.3% stated that as well the social status of the teachers improved, whereas 77% believe that the State Programme influenced as well the recruitment of new teachers.

Q 18. The institutional regime of the schools is seen ambivalent. Whereas 54% of the schools said that the school autonomy increased, another considerable share of 40.2% of the schools stated that the grade of institutional autonomy remain more or less on the same level as it has been before the reform.

Q 19. The majority of the schools (89.7%) try to explore the labour market in order to adjust the VET programmes. Only 8% of the schools do not explore the labour market. However, it is not considered by the schools that the amount on labour market information is sufficient, because in Q. 20 51.7% of the schools stated that they would need additional information for restructuring school offers. Only a share of 28.7% denied this question and obviously disposes of enough information for restructuring contents and programmes.

Q 21. Schools state nowadays a better transition of the learners to the world of work. After the VET reform 78.2% state a better transition, whereas 16.1% see the transition issue not improved. It remains unclear, what exactly promoted better transition in the majority of the schools.

Q 22. The vast majority of the schools stated improvements of quality and labour market relevance triggered by the reform (88.5%). However, only a share of 25.3% sees these issues 'much improved', whereas a considerable share of 63.2% registered improvements, but still there is something to be done in the future.

Q 23. Asked for the biggest and unsolved problems of the schools, more than 50% stated problems in the areas of low supply with technical materials (32.2%), the employment perspectives of the graduates (11.5%), the still existing demand for qualified staff (8%) and 6.9% mentioned the pending problem of the refugees which occupy school buildings. However, most of the problems could be solved through more investments in the schools. The most relevant solutions for the schools in tackling these pending issues would be an update of material and the technical base (23%), a better economic motivation of the teachers (6.9%) and a further renovation of school infrastructure.

Q 24. Innovation and reform have been in 5.7% of the cases 'very effective and sufficient'. However, a high share (81.6%) of the schools sees the process still 'effective and sufficient', an indicator that a vast majority of the school benefitted substantially from the activities carried out. Only 6.9% stated 'not effective and efficient', a minor share of the schools.

Q 25. The linkages between the school and their environment (enterprise, local communities, etc.) improved as well promoted through the State Programme. A minor share of 11.5% of the schools said 'pretty much improved'; however 70.1% stated at least 'improved'. A positive result, which in the mid term could further influence positively the performance levels of the schools.

Q 26. The positive results of the State Programme are confirmed on the school level with further positive statements towards issues like the number of applicants (increased or increased considerably = 83.1%), the quality of training (increased or increased considerably = 89.7%) and the demand of enterprises (67.8% respectively).

Q 27. This question confirms fully the statements of Q 26: 'No changes' in the learning and teaching process of schools reported only 1.1% of the schools and 'no changes' in the working conditions are only reported by 5.7% of the schools. Finally only 8% stated that there are 'no changes' in the reporting system to the superiors. All in all, many positive changes have been triggered by the State reform.

Q 28. Urgent and pending issues for the schools are still the refugees in the schools buildings stated by a share of schools which is concerned by this issue and of course further renovation and the update of technologies. Hence, the overall and positive results can be seen as a provisional stage in a longer lasting process of VET system and school network improvements, which demand for further reform and innovations.

Q 29. The outstanding answer about the relevant lessons learned through the State Programme is the widespread use of ICT in the learning environments of the schools. This issue is by far one of the most relevant improvements in all schools (beside of the improvements of the building infrastructure, which refers only to a minor number of schools).

Q 30. The positive view of the results and achievements of the State Programme is confirmed by the last question. 90.8% of the schools stated that the reform has been 'successful or very successful', whereas only 5.7% of the schools stated 'not successful'.

Summary

The school questionnaires results reveal a positive view and opinions of VET experts working there about the impact of the reform on the institutional level of schools. There might be a 'friendly and politeness factor', which influenced schools for scoring positively about things their superiors decided, designed and implemented.

However, in the context of the many field visits and intensive discussions with VET stakeholders the main and positive results of the reform stated by the schools is confirmed, always taking into account that not much has been done in the VET sector prior to the reform starting in 2007. Maybe the benchmark with which staff of schools would rate the reform would be higher and consequently the statements in the questionnaire more critical, if more international experience and good practice from elsewhere would be available in the country. Nevertheless, the State Programme created a solid fundament on which a lot of future innovative ideas and actions can build on.

Statistical analysis of the VET school questionnaire

Methodological remark

This section contains the testing of variables derived from the school questionnaire which has been disseminated to all VET schools in Azerbaijan. The variables have been processed firstly in a mere descriptive manner (previous section) using the excel database created by categorising the answers of the schools to the 30 questions. The database has been later on converted in a suitable format for statistical analysis. Variables of the database have been tested for significant correlations with two convenient tools of analytical statistics according to the scale level of the data.

The last part of this paper (p. 9f) comprises a summary based on recoded variables of the database, in order to test potential correlations between (mostly) bivariate distributed variables. This means e.g. that the variable quality and labour market relevance is presented in 'remain', whereas 'improved' and 'much improved' have been summed up in one category.

So far, the ETF used statistical tests adequate to the prevailing scale level of the data (mostly nominal and ordinal). The cross tables reveal some correlations and (astonishingly) no correlations between variables where one would have expected a correlation.

All cross tables have been tested with **Chi-square** and **Spearman's Rho** according to the scale level of the data in the questionnaire for the VET schools. The statements summed up in the cross tables used for statistical testing is based on opinions of local VET experts in the schools working in a hierarchical VET system. It is not the reality as such. Hence, the results are only one facet of the accomplished reform and should be used in the overall context of the evaluation of Azerbaijan's State Programme.

Results

The variables renovated and previous assessments are not significantly correlated. The same occurs between renovation and possibility to make proposals. We can conclude that assessments (54.8% of all schools which answered this question have been assessed) and proposals did not significantly influence the decision for prioritising specific schools for renovation. This leads to the question where the (transparent) indicators came from, which finally led to the decision to prioritise some schools for renovation. Or the other way round: assessment and consultation of the schools have obviously not been targeted used for preparing better decision making about the implementation of the reform in the sense what must be done where, how and when. The government and MoE should draw its own conclusion from this finding if a following phase of reform should better prepare important decisions in order to create a more transparent and participative (political) process and to better build on evidence collected meanwhile preparing new attempts of reform and innovation.

The possibility to make proposals (which 75 or 87.2% schools out of 86 answering this question did, partly or fully) does not significantly or positively correlate with the variable partly or substantially improved. One might have assumed that the high number of schools which contributed with proposals would have led to a considerably improved situation, precisely in these schools. However, there is no positive correlation and we may conclude that either the reform or the proposals have not been precise and targeted enough to substantially improve the situation in all schools which have been consulted and/or financial resources have not been sufficiently available. Even in this context it should be reflected how future reforms could be better based on evidence 'coming from the ground', including information of the schools about resources available and criteria for the disbursement of the funds.

There is as well no correlation between the possibility of making proposals and better relations to the learners, the business sector or the local community (tested as well with Chi-square and Spearman's Rho). Despite of the fact that a lot of schools see substantial progress in the relations to the learners, less to the business sector and even lesser to the local community, it is not linked to their proposals. This means that the positive effect of better relations to the learners could even be optimised, if proposals would have been taken more systematically into account. The positive fact that these relations improved is most likely related to the previous and disastrous situation in schools, where new textbooks, electricity and water supply etc. triggered by the reform are already substantial improvements in a process which is not finished yet.

However, the fact that relations to the business sector and the local community did not improve very much reveals as well a traditional self-perception of the schools, having the learners and other inner systemic elements like curricula, textbooks, computers more in the focus for daily surviving rather than external relations which could in the mid term lead to better performance levels of the schools in their socio-economic environment. Schools will need notable support and capacity building in order to cooperate better with their environment.

The Chi-square test reveals a positive correlation between the possibility of making proposals and the overall opinion that the State Programme has been successful. This is not confirmed by Spearman's Rho. However, one might conclude that consulted schools tend to see the reform more positive. The identification with the implementation of the reform and with the results of the reform increases, when the frontrunners (like school directors and teachers) have been consulted, independently from the fact if all the feedback of the schools has been considered in reform implementation. Reforms are as good as they are prepared and managed, e.g. who develops ownership, engagement etc. Hence, the positive statistical correlation is relevant for the identification with reform objectives and implementation processes of innovation. Correspondent campaigns and information sessions should be launched for preparing further reform initiatives in VET.

The renovation of schools goes hand in hand with the perception of the situation in schools. 95.2% of the schools stated that the situation after the reform has slightly or substantially improved – a high share of

schools, which demonstrates that the reform went into the right direction. This is statistically underlined by Chi-square = 8.4539; $df^1 = 2$; and with positive correlation of Spearman's Rho = 0.3128. However, only 17.8% of the schools which responded to this question see the situation substantially improved. This share corresponds more or less to the number of renovated schools and it is a hint for still existing demand for physical improvements of school buildings. The others consider the situation as slightly improved.

There is a positive correlation (Chi-square = 20.2562; $df = 4$) between the variables improved situation and a better adjustment to the needs of the learners and the labour market. This is not confirmed by Spearman's Rho coefficient. However, the significant correlation tested with Chi-square between the two variables could be an indicator for progress towards a better coverage of the needs of learners and the labour market. Moreover, nearly half of the schools which stated that their situation has slightly or even substantially improved does not see a better coverage of these needs – an indicator that there is still a lot to do in the future. This is confirmed by recoded variables (see p. 9f.).

Some 28% out of the 82 schools which responded to this question stated that they have additional support from others in running the school. However, there is no significant correlation between renovated/not renovated schools and additional support, a hint that the specific interest, aspirations and social environment are more responsible for supporting schools rather than the state of the art of the schools. This is confirmed by the fact that schools with additional support do not significantly and frequently state more that they can better cover the needs of the learners and the labour market. Or the other way round: even when schools receive additional support, in many institutions there is a remaining gap towards the needs of the learners and the labour market. This important argument underlines the necessity for further reform and innovation.

This is as well supported by combining the variable of renovation of schools with the issue of covering the needs of the learners and the labour markets. Chi-square and Spearman's Rho reveal modest results on 5% significance level: Even renovated schools state to nearly 50% that they cannot or can only partly cover these needs, an indicator that future amendments (like better educated teachers) are necessary and by far not only in the still not renovated schools. This will be reinforced as well by the statement that nearly half of the schools (47.6%) which answered this question report a higher demand of (mostly) the learners and the enterprises, independently if they have been renovated or not.

This is not a contradiction to the fact that independently of being renovated or not a majority of 68 (corresponding to 80.9%) schools out of 84, which answered to this question, stated that the transition of the learners has improved after the reform. Obviously the labour market of the country reveals a certain dynamic development and the economy demands for more graduates on ISCED 3 and 4 levels. Hence, an external effect seems to be predominantly responsible for a better transition, not necessarily increased employability triggered by better training programmes.

This is confirmed while asking if after the reform the quality and labour market relevance of the VET programmes have improved. Independently if renovated or not the schools responded to the question in the same manner, or the other way round: there is no statistically proved correlation between the two variables. Only 26.5% said that these issues improved much. However, 66.3% stated that there have been improvements, while only a share of 7.2% sees the situation remaining at the same level. If these improvements are sufficient for covering better labour market needs and the needs of the learners is another question, but there is an overall and positive attitude towards the previous State Reform Programme in a sense of much has been achieved – a lot is still to be done.

A vast majority of 76.2% of the schools state that the VET offers are after the reform more attractive for the learners, only 23.8% of the institutions stated that the VET offers are not more attractive.

These statements are independent from the fact that the school has been renovated or not, because there is no significant correlation between renovation and attractiveness! There are different explications for that: All

schools benefitted from the reform in terms of educational infrastructure. This makes learning and the VET offers more attractive. External factors like an increased demand on the labour markets for VET graduates might foster as well an increased attractiveness. Finally, increased attractiveness of VET offers could be a combination from external and internal factors but is not exclusively triggered by renovated schools.

Independently from being renovated or not the vast majority of the schools (94.1%) stated that the reputation and attractiveness of the entire institution increased. The remarkable fact is that this is not related to the renovation of entire buildings or some classrooms is a big point for further amendments of the institutions which will further increase the reputation of institutions and the entire VET system.

Increased school autonomy after the reform, confirmed by 57.3% of the institutions which responded to the question, is of course not linked to the issue if the building infrastructure has been improved or not. Here are other factors relevant, which are more related to the overall legal framework.

The renovation of buildings has a minor effect on the statement if quality and labour market relevance improved. A vast majority stated that these issues improved (66.3%) or improved much (26.5%). However, there is no significant correlation to the renovation issue. Obviously the overall complexity of the entire educational infrastructure is in the scope of the responders, when the answered to this question and not only a single factor like the renovated buildings.

There is no professional area specific respond to the question if quality and labour market relevance improved all in all and has been triggered by the reform. This means there is a strong tendency for some improvements and a minor part stated much improvements. However, this is valid crossover the different professional areas and not for some specific ones. Tourism sector is not mentioned as separate sector.

Some other variables have been tested for significant correlations with the issue of renovation such as number of applicants, quality of training and increased demand of enterprises. None of these variables correlates significantly with the issue of 'renovation yes/no', which confirms the previous findings. Improvements are related to a complex setting of factors triggered by the reform and not predominantly by a single factor. However, 95.3% from 85 schools responding to this question stated that the number of applicants improved or improved very much. Some 92.8% stated a better quality and finally 72.8% reported an increasing demand by enterprises.

Similar findings revealed by testing significance of the correlation of the variable renovated yes/no with the variables changes in learning and teaching and the variable changes in work conditions of teaching staff. There are no significant correlations between the variable, neither in Chi-square nor in Spearman's Rho. This means that the schools attribute the many (and positive) changes to an entire sample of influencing factors triggered by the entire State Reform and not to a single but dominating one.

(The following section refers to a data base called 'additional tables' provided by the ETF statistical team and derived from the excel database mentioned above).

There is a positive and solid correlation between benefitting from all areas of the reform and improvement of the situation. A higher share of renovated schools agrees even on substantial improvements (6 out of 16) whereas only 9 out of 67 of non-renovated schools report substantial improvements – an indicator that a lot is still to be done.

Regardless if the schools benefitted from all areas of the reform programme or not, there is no significant correlation with the relations of the school to the business sector. Obviously these relations are not driven predominantly by improvements on the supply side of the schools and some existing education and business relations follow other patterns rather than the results of the State Programme. The relations to the learners and the local community reveal the same insignificant results. This is confirmed by the fact that only

5 (= 6.2%) out of 81 schools, which responded to this question report a higher demand of enterprises independently if the benefitted from all strands of the State Programme or not.

There is no significant correlation between quality and labour market relevance and the issue if the school benefitted from all parts of the programme or not. Hence, the improvement of school buildings is not an exclusive driver for better quality and relevance, but a comprehensive approach covering different important areas of reform and innovation. However, 79 (= 92.7%) out of 82 schools which responded to this question report improvements in quality and labour market relevance of their offers.

The renovated VET schools, which benefitted from all strands of the State Programme report significantly more frequently

(Chi-square 7.46; df = 2, probability of error 5%) that the number of applicants increased. This is a good argument for further holistic reform, once when it's clear which VET school of the network will further exist or if some schools will be closed down or merged with others. Asked for increased quality, the VET schools which benefitted from all strands of the programme report significantly higher and increased level of quality – as well an argument that only a comprehensive approach, covering different areas of VET reform and innovation is an alternative for future reforms.

The schools which benefitted from all parts of the programme report significantly more 'many and positive changes' in the working conditions. Obviously renovated buildings are seen as a main driver for better working conditions of the teaching staff. This strand of the reform programme influenced as well the teaching and learning process. Schools stress significantly a strong relation of the positive improvements to a comprehensive approach comprising the renovation of buildings. However, the overall and vast majority of the schools (78 = 94% out of 83 school answering this question), which gave positive reply whether the programme was successful or not are a strong hint for the previous a disastrous situation. The term 'successful' is not exclusively related to new buildings but as well too many other positive amendments driven by the State Programme.

Astonishingly 33 schools (= 42.8%) out of 77 schools which responded to the question that the situation has (slightly) improved after the reform say that they are still not able to better adjust educational offers to the needs of the learners. This is another hint that there is still a lot to do by further reform an innovation.

There is a considerable significance between better relations to the business sector and exploring the labour market needs. Astonishingly the correlation is reverse. It could be concluded that VET schools with better relations to the business sector replace exploring the labour market by discussing more intensively with employers about skills needs.

The variable 'better relations to the business sector' does not influence the VET schools statements about quality and labour market relevance: Independently from these relations the vast majority of the schools (77 = 92.8% out of 83 which responded to this question) stated that that quality and labour market relevance improved, which is attributed to the reform measures.

Better relations to the business community do not significantly influence the overall opinion of the schools if the State Programme was successful or not. The vast majority of the schools which answered to this question (70 = 90% out of 84 schools) stated that the reform has been successful.

(The following text builds on recoded variables which have been processed by the ETF statistical team and derived from the above mentioned excel data base).

There is no correlation between the variable benefitting from all reform areas or not and the improvement of quality, which means that the schools do not see the renovation of the buildings as a causal factor for quality improvement. This aspect could contribute to quality improvements. However, relevant is the complex and the

substantial advances in all areas envisaged by the reform. The same refers to the (increased) number of applicants and benefitted or not in all areas. Independently from the building issues the number of applicants increased in 80 VET schools out of 84, which gave an answer to this question.

There is a clear and significant relation between the two variables higher demand of learners/enterprises related to the variable if the situation of the schools after the reform remained the same or improved (Chi-square = 9.1162, df = 1, significant even on 0.3% probability of error). Moreover, the positive correlation is proved by Spearman's Rho with 0.3355: the improved situation is accompanied by an increased demand (of enterprises and learners). An additional factor might be better labour market perspectives for VET graduates, which could partly be confirmed by the schools which reported a better transition of their graduates.

Astonishingly 34 out of 77 schools which responded to this question (= 44.1%) still say that despite of an overall improved situation the school is still not better able to adjust the educational offers better to the needs of the learners. This is a big hint, that even in the benefitting schools a lot remains to be done and that the State Programme covered some important areas, but could not cover all needs still remaining.

A better educational quality highly correlates with an improved situation (Chi-square 11.2967; df = 1 and significant even by 0.1% error probability). The positive correlation is documented by Spearman's Rho = 0.3712. What seems to be very evident is of course a big point and confirmation of the positive results of the reform in many aspects.

Schools stating a higher demand of learners and enterprises dispose about better information of the transition of the learners on the labour market (Chi-square = 10.8466; df = 1 and error probability = 0.1%) this is underlined by Spearman's Rho = 0.3637 revealing a positive correlation. It would be worthwhile to discuss the background again with locals. Obviously, there are some (informal) communication channels between school and their environment, which contribute to a better information level of schools.

There is as well a strong and positive correlation between a higher demand and the improvement of quality and labour market relevance of the VET school programmes (Chi-square = 14.0390; df = 1; no probability of error and Spearman's Rho = 0.4163). It's not possible to state significantly if there is an intermediate variable pushing this correlation e.g. increased reputation of VET programmes because a lot has been done in the schools.

There is a significant correlation between the fact that a VET school explore the labour market needs and the issue if quality improved or not (Chi-square = 5.1924; df = 1; significant on a level of 2.3% error probability – Spearman's Rho = 0.2501). The correlation is positive saying more exploration has influence on more quality, which is a good argument of strengthen linkages of VET schools towards the entire socio-economic environment – most of all with the business sector and the local community.

An improved level of quality correlates as well with the degree of having information about the transition of the learners on the labour market. More quality in the programmes is equal with more information on the transition of the learners (Chi-square = 5.5903; df = 1; significant even on a level of error = 1.8%). The Spearman's Rho coefficient is positive = 0.2595.

75 schools out of 82 which responded to this question (= 91.5%) stated a higher demand of learners and enterprises. This correlates significantly with the issue, if school improvements led to better relations with the business sector (Chi-square = 6.6097; df = 1 on a significance level of 1%– and a correspondent Spearman's Rho = 0.2839). This means all in all that there are stronger efforts of the schools towards linkages to the outside world, which does not mean that there is not more space for improvement.

In 30 schools a share of 30 up to 52.6% of all teachers is 56 years old or older. Given the quantitative dimension of the existing VET system and the intentions for expanding it, a lot of new staff must be recruited in the next future. All these older teachers have been educated in the former Soviet Union. A new recruitment

policy must reflect on what profiles would be the most effective ones in the context of the future challenges in the country.

Questionnaire for VET schools involved in the State Programme or in other rehabilitation measures

This questionnaire is addressed to schools which underwent in the last years a substantial process of rehabilitation. The VET schools benefitted either from the State Reform Programme for VET schools or from other initiatives.

The questionnaire has been designed by the European Training Foundation (ETF), an agency of the European Union (EU), which supports VET system development in countries around the EU, in order to evaluate the Azerbaijan State Programme of VET reform. The Ministry of Education in Baku asked the ETF to evaluate the State Programme of VET reform. The questionnaire should be filled out by the school director.

The evaluation of the State Programme builds on interview, visits to schools, discussions with local VET experts, analysis of relevant documents and this questionnaire. The design of the evaluation strategy and this questionnaire has been discussed with the Ministry of Education in Baku.

We kindly ask you to fill out the attached questionnaire by May 2013 and send it to

There are many questions where you have to make a simple cross in such a circle O. It's possible to mark several answers of the same question. A few other questions need some descriptions and explanations in writing.

If you need any other kind of information or support, please do not hesitate to contact our colleague

Chinara Guliyeva
chinara.rasulova@gmail.com

Many thanks for your cooperation! The results of the evaluation will be available at the end of the year through the Ministry of Education of Azerbaijan.

The evaluation team

Questionnaire for VET schools in Azerbaijan

A. General information about the school

Name of the school:

Address:

Total average number of students:

Out of the total number,

Number of females:

Number of males:

How many of your teachers/instructors are in the following age groups:

25–35 years:

36–45 years:

46–55 years:

56–65 years:

Older than 65 years:

Number of employees of the school:

Total number:

out of them:

Number of teachers for general subjects:

Number of teachers for specialised subjects:

Number of instructors:

Vocational areas in which the school offers training programmes:

.....
.....
.....

Legal status of the school: public private

B. The State Reform Programme

1. Your school has been involved in the State Reform Programme. In which way did the school benefit:

- new buildings, rooms
- new infrastructure (machines, PCs, etc.)
- textbooks, internet connection, software, etc.
- teacher further training
- in all above mentioned areas
- e-portal
- in something else

.....
.....

2. Took an assessment place, before the school benefitted from the State Programme?

- no
- yes, in the following manner

.....
.....
.....

3. Has it been possible for you to make proposals, recommendations in certain areas concerning your school during the preparation phase of the State Programme?

- yes
- no
- partly, because

.....
.....
.....

4. In case of answering 'yes' or 'partly' in the previous question, have your suggestions been linked to:

- the needs of the learners
- demands of the local economy
- both
- implementation of the State Programme
- others

.....
.....
.....

5. How long did it last to implement the changes triggered by the State Programme?

- half a year
- a year
- 1.5 year
- 2 years
- more than 2 years

6. Compared to the situation before the amendments by the State Programme, the overall situation has:

- substantially improved
- slightly improved
- is more or less the same

7. If there are improvements, what are the three main areas?

- 1.
.....
- 2.
.....
- 3.
.....

8. Have school improvements led to better relations to the:

- learners
- business sector
- local community
- others, such as:
.....
.....

9. Despite of the improvements, are there still constraints and bottlenecks, such as:

.....
.....
.....

10. Does the school still have additional support from others, such as donations, internships for teachers in enterprises, etc.:

- yes.....
.....
- no, because
.....
.....

11. Have the amendments made through the State Programme led to higher demand of:

- learners
- enterprises for certain programmes
- both
- no higher demand

12. Is the school now able to better adjust educational offers to the needs of the learners and the labour market?

- yes, because
.....
- no, because
.....
- partly, because
.....

13. Would you say that VET offers from your school are now more attractive for the learners?

- yes, because
.....
- no, because
.....

14. Has the reputation and attractiveness of the school increased through the State Programme?

- yes, because
.....
- no, because
.....

15. Has the social status/reputation of teachers increased through the State Programme?

- yes, because
.....
- no, because
.....

16. Had the State Programme any influence on the recruitment of new teachers?

- yes, because
.....
- no, because
.....

17. Did the State Programme influence the nomination of new teachers?

- no, because
.....
- yes, because
.....

18. Has the school autonomy increased through the State Programme?

- it increased
- it remained the same

19. How do you explore nowadays local labour market needs?

- do not explore labour market needs, because
.....
.....
- do explore labour market needs, through
.....
.....

20. Would you desire other and additional information for restructuring your school offers? In case you answer with 'yes', which:

.....
.....
.....

21. Do you have information about the transition to work of the learners after the reform and after graduation?

- yes, transition is better
- yes, transition is not better
- no information

22. Would you say all in all that after the reform quality and labour market relevance of the training programmes of the school have:

- much improved
- improved
- remain at the same level

23. Pending issues, what is still a big problem in the school and where do you see solutions for this?

.....
.....
.....

24. The reform and innovations in the school facilities have been:

- very effective and sufficient
- effective and sufficient
- not effective and sufficient enough

25. Are the linkages between the schools and local stakeholders like business men from enterprises, representatives of the community and local governments, the learners etc. or to the existing school network:

- pretty much improved
- improved
- remain the same

26. If you look at the overall development from 2007, when the State Programme has been launched, until today and at issues like number of applicants, quality of training, the demand from enterprises for qualified graduates, how do you see this (in marking one circle of each row below).

	Considerably increased	Increased	Remained stable	Decreased
Number of applicants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demand of enterprises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Are there important changes in relevant issues triggered by the State Programme? Please mark like in the previous question.

	Many positive changes	Some changes	No changes
Learning and teaching process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working conditions of teaching staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Report system to superiors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. Are there one or two factors not covered by the State Programme, which would considerably further improve the performance level of the school?

- yes, namely
.....
.....
.....
- no

29. What are relevant lessons learned from the experience of the State Programme for further innovation and reform?

.....
.....
.....

30. Finally, we ask you kindly to mark your overall opinion towards the State Programme. Was it

- very successful
- successful
- not successful
- not successful at all

List of people interviewed during evaluation missions (21-31 May & 10-18 June 2013)

Surname, name	Organisation, department	Position
Mammadov Namig	Ministry of Education	Director of TVET Department
Gadirov Farzali	Ministry of Education Department for Strategic Analysis, Planning and Staff Management	Director of the Department
Rzayev Fariz	Student Exchange and Education development programmes Department	Deputy Head
Asgarov Rasul	Institute of Education problems, VET Development Centre	Director
Jafarov Elkhan	Institute of Education problems, VET Development Centre	Coordinator
Abdullayeva Rena	Ministry of Labour and Social protection of Population Department of Employment Policy and Labour Market Adjustment	Deputy Head
Mamedova Masuma	Ministry of Labour and Social protection of Population Scientific Research and Training Centre on Labour and Social Problems	Director
Heydarli Javid Mushvig	Ministry of Labour and Social protection of Population State Employment Service	Head of Department of Law and Human resources
Khalafov Shahbaz Mahmud	Ministry of Labour and Social protection of Population	Deputy Chief
Asgarov Shaiq A.	Azerbaijan Republican Committee of Independent Trade Unions of Employees of Educational Institutions	Vice Chairman
Mustafayeva Zulfiyya	World Vision Azerbaijan	Youth Development and Employment Networking Project Manager
Nakhchivanli Aqiya Habib	Azerbaijan Teachers Institute	Rector
Azimov Rahim	Azerbaijan Teachers Institute	Vice-Rector on Advanced Training
Efendiyev Mohammedali	Confederation of Entrepreneurs	Secretary General
Gurbanov Adil	Confederation of Entrepreneurs	Vice Director
Hantschmann Barbara	Confederation of Entrepreneurs	CIM Expert
Qarayev Arif	Ministry of Agriculture	Senior Adviser of Ministerial Administration
Gaybaliyev Alipasha	National Productivity and Competitiveness Centre	Secretary general
Gambarova Sadagat	National Productivity and Competitiveness Centre	Social Project Director
Asadov Ilgar	National Productivity and Competitiveness Centre	Business Development Director
Gasnov Nuraddin Shuru Ogly	Absheron – Bina Vocational Lyceum	Director
Ibragimova Sanubar Shakhniyar kyzy	Absheron – Bina Vocational Lyceum	Deputy Director

Alik Gardyg Allakhverdiyev Ogly	Baku Vocational Lyceum No 4 (KNAUF School)	Director
Rzayeva saida Akper gyzy	Baku Vocational Lyceum No 4 (KNAUF School)	Deputy Director
Izmailov Radik Farman Ogly	Baku Vocational Lyceum No 4 (KNAUF School)	Deputy Director for academic and education work
Eynullayev Celal	AZERSUN Academy	Head of Department
Mehtiyev Rashad	AZERSUN Academy	
Magerramov Shahin	Ganja Vocational Lyceum No 2	Director
Aliyev Aly	Ganja Vocational Lyceum No 3	Director
Rustamov Azer	Ganja Vocational Lyceum No 3	Deputy Director
Gasymova Almaz	Shamkir Vocational Lyceum	Director
Huseynov Shafi	Shamkir Vocational Lyceum	Deputy Director
Zeynalov Gabil'	Goychay Vocational Lyceum	Director
Aliyev Gaydyr	Goychay Executive Administration	Deputy Director
Kazymov Eivaz	Gabala Vocational School	Director
Rasulov Jamal	Gabala Vocational School	Deputy Director
Caylak Ali	Gilan Holding Qafqaz Resort Hotel	General Manager of the hotel
Muradov Zaur	Ismailli Vocational School	Director
Sadiqov Mirdamed Mirsadiq oglu	Ismayilli Executive Administration	Head of District Administration
Soltanov Ramiz	Shemakhi Vocational Lyceum	Director
Eynulla Gasimov	Vocational Lyceum No 12 Baku	Director
Shahin Baylarov	Vocational Lyceum No 12 Baku	Deputy Director
Ilyaz Mizrayev	Shirvan Vocational lyceum	Director
Alashraf Hajiyev	Shirvan Vocational lyceum	Deputy Director
Aladdin Damirov	Mingachevir Vocational School	Director
Tunzala Ismailova	Mingachevir Vocational School	Deputy Director
Najmaddimov Bahman	Employers: Heating Electric Station	Director
Pashayev Rafiq	Employers:Plant for reinforced products	Director
Eyvaz Hasanov	KUR Computer Manufactory	Leading Specialist
Rzayev Famil Mais oglu	Yevlakh Vocational School	Director
Mammadova Afet Sabiz gizi	Yevlakh Vocational School	Deputy Director
Aliyev Sabir Gasim oglu	Employer: Baku Garments Factory	Director of VET School No 3 and leading specialist in the factory

Zulfuqarzade Rza	EU Delegation	Programme Manager for Education
Muradov Adalat	Ministry of Economic Development	Head of the Department
Valiyev Vilayat	Ministry of Economic Development	Institute of Economic Reforms at the Ministry of Economic Development
Mammadli Natiq	Ministry of Economic Development	Head of Sector for Forecasting
Bahsaliyev Dayanat	Knauf Marketing Baku	Technical Specialist
Hajiyev Aydin	Knauf Marketing Baku	Educational Department
Quliyev Samir	Knauf Marketing Baku	Managing Director

Timeline of the ex-post evaluation with focus on results and processes

Steps	Timeline
Desk research	February-April 2013
Structured interviews with VET system stakeholders and field visits	May-June 2013
Survey among VET schools	June-July
Analysis and preparation of the draft report	September-November
Presenting draft report to the Ministry of Education and other stakeholders Discussions and validation by stakeholders at the seminar	December
Finalisation of the report based on feedback from stakeholders	January 2014

REFERENCES

References referring directly to the State Programme

1. State Program for the development of vocational education in the Republic of Azerbaijan (Eng)
2. Actions plan for realization of the Program (Eng)
3. Public spending on education 2002-2012 (Eng)
4. Executive order of the President of the Azerbaijan Republic on extra measures on maintenance of repair of the preschool educational institutions and educational institutions of initial vocational training_2010 (Eng)
5. Enrollment plan For 2011-2012 academic year (Eng)
6. The state standard and program (curriculum) for the initial vocational education level 2009_ENG_FINAL (Eng)
7. Rules for accreditation of educational institutions 2010 (Eng)
8. Execution term for educational programs (curriculums) 2010 (Eng)
9. Decision of the Cabinet of Ministries of the Republic of Azerbaijan on the definition of the types of entrepreneurial activities that can be provided by educational institutions in order to receive the additional income (Eng)
10. Order of the Ministry of Education on the execution of Presidential decree on increasing bursaries for postgraduates, students and pupils of higher, secondary specialised, vocational schools and lyceums (Eng)
11. Sample charter of initial VET institutions _2011 (Eng)
12. Labor Market Analysis Twinning AZ09ENPPCAHE13 (Survey amongst Family Farms Conducted within a Labor Market Study in the Agricultural Sector of Azerbaijan) (Eng)
13. UNICEF Action plan for the execution of obligations defined in the 'Development Concept of technical and vocational education in the Republic of Azerbaijan (2007-2012)' (Eng)
14. Unicef Development Concept of Vocational Education in the Republic of Azerbaijan (2007-2012) (Eng)
15. Activity Plan of the measures envisaged by the objectives of the State program (Az)
16. The Decree of the President of the Republic of Azerbaijan on approval of the State Program (Az)
17. Annual Report on activities implemented in VET in 2012 (Az)
18. Annual Report on activities implemented in VET in 2011 (Az)
19. Annual Report on activities implemented in VET in 2010 (Az)
20. Annual Report on activities implemented in VET in 2009 (Az)
21. Annual Report on activities implemented in VET in 2008 (Az)

22. Strategic Plan of the MOE for 2010-2012 (Az)
23. Strategic Plan of the MOE for (2007-2009) (Az)
24. Report by MOE sent to the Presidential Administration on the program implementation (Az)
25. Presentation on the implementation status of the State program for VET (2007-2012): achievements, problems and perspectives (Az)
26. 2009 Economic Report on strengthening the material-technical resources in Education (Az)
27. 2010 Economic Report on strengthening the material-technical resources in Education (Az)
28. 2011 Economic Report on strengthening the material-technical resources in Education (Az)
29. 2012 Economic Report on strengthening the material-technical resources in Education (Az)
30. VET Budget 2004-2011 (Az)
31. Enrolment to VET institutions_numbers by the beginning of year_1991-2012 (Az)
32. Graduation from VET institutions _numbers by the beginning of year_1991-2012 (Az)
33. Number of teachers of VET institutions by the beginning of year_1991-2012 (Az)
34. VET institutions and students_numbers_1991-2012 (Az)
35. List of VET institutions accredited in 2010-2012 (Az)
36. Curriculum framework for advanced training of administration and pedagogic staff of preschool, secondary, initial vocational education institutions _2012 (Az)
37. Instruction on evaluation and implementation of advanced training programs 2012 (Az)
38. The Sample charter of institutions providing the advanced training and retraining (Az)
39. On measures improving the initial VET system in Azerbaijan (Az)
40. Estimation of norms on budget allocations for initial VET institutions_2010 (Az)
41. Decision of the Cabinet of Ministers on the material-technical base and education infrastructure of education institutions 2012 (Az)
42. Decision of the Cabinet of Ministers on establishment of İsmayılı VET Center (Az)
43. Samples of official documents/certificates on education at VET level and rules for their provision 2010 (Az)
44. Order of the Minister of Education on approval of pilot education programs_2010 (Az)
45. Order of CM on the teaching load of pedagogic staff of education institutions_ 2010 (Az)
46. Instruction on developing the curriculum and modules_2010 NK (Az)
47. Approval by the CM of the practical guidelines on strategic planning for VET institutions (Az)

48. Decision on development of National Strategy on Development of Education in Azerbaijan for 2011-2021 (Az)
49. On approval of the Concept and the Strategy Azərbaycan Respublikasında fasiləsiz pedaqoji təhsil və müəllim hazırlığının Konsepsiya və Strategiyasının təsdiq edilməsi haqqında (Az)
50. On types of entrepreneurship activities allowed to education institutions for extra income generation 2009 (Az)
51. Regulation on the Pedagogic council on VET institution 2012 (Az)
52. Regulation on bilateral cooperation of VET institutions with employers (Az)
53. Regulation on branches of VET institutions (Az)
54. Regulation on training rooms and laboratories of VET institution (Az)
55. Guidelines for developing, assessment, approval and implementation of curricula for advanced training, retraining of professional staff of VET institutions (Az)
56. Regulation on practical experience of VET students (Az)
57. Guidelines for development, approval and implementation of working plans for academic year at VET institutions (Az)
58. Part 1 Labor market Analysis by National Center of Productivity and Competitiveness (Az)
59. Part 2 Labor market Analysis by National Center of Productivity and Competitiveness (Az)
60. Labor Market 2012 _ Statistical yearbook
61. Activity Plan of the measures envisaged by the objectives of the State program (Az)
62. The Decree of the President of the Republic of Azerbaijan on approval of the State Program (Az)
63. Annual Report on activities implemented in VET in 2012 (Az)
64. Annual Report on activities implemented in VET in 2011 (Az)
65. Annual Report on activities implemented in VET in 2010 (Az)
66. Annual Report on activities implemented in VET in 2009 (Az)
67. Annual Report on activities implemented in VET in 2008 (Az)
68. Strategic Plan of the MOE for 2010-2012 (Az)
69. Strategic Plan of the MOE for (2007-2009) (Az)
70. Presentation on implementation status of the State program for VET (2007-2012): achievements, problems and perspectives (Az)
71. 2009 Economic Report on strengthening the material-technical resources in Education (Az)
72. 2010 Economic Report on strengthening the material-technical resources in Education (Az)
73. 2011 Economic Report on strengthening the material-technical resources in Education (Az)

74. 2012 Economic Report on strengthening the material-technical resources in Education (Az)
75. VET Budget 2004-2011 (Az)
76. Enrollment to VET institutions_numbers by the beginning of year_1991-2012 (Az)
77. Graduation from VET institutions_numbers by the beginning of year_1991-2012 (Az)
78. Number of teachers of VET institutions_by the beginning of year_1991-2012 (Az)
79. VET institutions and students_numbers_1991-2012 (Az)
80. List of VET institutions accredited in 2010-2012 (Az)
81. Curriculum framework for advanced training of administration and pedagogic staff of preschool, secondary, initial vocational education institutions _2012 (Az)
82. Instruction on evaluation and implementation of advanced training programs 2012 (Az)
83. The Sample charter of institutions providing the advanced training and retraining (Az)
84. On measures improving the initial VET system in Azerbaijan (Az)
85. Estimation of norms on budget allocations for initial VET institutions_2010 (Az)
86. Decision of the Cabinet of Ministers on the material-technical base and education infrastructure of education institutions 2012 (Az)
87. Decision of the Cabinet of Ministers on establishment of Ismailli VET Center (Az)
88. Samples of official documents/certificates on education at VET level and rules for their provision 2010 (Az)
89. Order of the Minister of Education on approval of pilot education programs_2010 (Az)
90. Order of CM on the teaching load of pedagogic staff of education institutions_ 2010 (Az)
91. Instruction on developing the curriculum and modules_2010 NK (Az)
92. Approval by the CM of the practical guidelines on strategic planning for VET institutions (Az)
93. Decision on development of National Strategy on Development of Education in Azerbaijan for 2011-2021 (Az)
94. On approval of the Concept and the Strategy Azərbaycan Respublikasında fasiləsiz pedaqoji təhsil və müəllim hazırlığının Konsepsiya və Strategiyasının təsdiq edilməsi haqqında (Az)
95. On types of entrepreneurship activities allowed to education institutions for extra income generation 2009 (Az)
96. Regulation on the Pedagogic council on VET institution 2012 (Az)
97. Regulation on bylateral cooperation of VET institutions with employers (Az)
98. Regulation on branches of VET institutions (Az)
99. Regulation on training rooms and laboratories of VET institution (Az)

100. Guidelines for developing, assessment, approval and implementation of curricula for advanced training, retraining of professional staff of VET institutions (Az)
101. Regulation on practical experience of VET students (Az)
102. Guidelines for development, approval and implementation of working plans for academic year at VET institutions (Az)
103. Part 1 Labor market Analysis by National Center of Productivity and Competitiveness (Az)
104. Part 2 Labor market Analysis by National Center of Productivity and Competitiveness (Az)
105. Torino Process 2012: Azerbaijan, ETF, Turin, 2013, available at: www.etf.europa.eu/web.nsf/pages/TRP_2012_Azerbaijan
106. Torino Process 2012: Georgia, ETF, Turin, 2013, available at: www.etf.europa.eu/web.nsf/pages/TRP_2012_Georgia
107. Muraveva, A., Review of data, tools and analytical and institutional capacities for skills anticipation in Azerbaijan, ILO, 2013
108. Franz, J., Financing technical and vocational education and training, Capacity Building International (Inwent) Germany, 2005
109. Ziderman, A., Funding mechanisms for financing vocational training: an analytical framework, ILO, Geneva, 2013

References (literature and journals)

Azernews, 2013, The nation's No 1 international newspaper, 43(846), June, Baku

ETF (European Training Foundation), 2012a, The Torino Process, Analytical framework for vocational education and training system reviews, Turin

ETF (European Training Foundation), 2012b, ETF Yearbook 2012: Evaluation and monitoring of vocational education and training systems and the role of evidence-based policy in their reforms, Publications Office of the European Union, Luxembourg

MoE (Ministry of Education), 2012, Information on the applicants to initial vocational education institutions for 2011-2012 academic year, Baku

NCPC (National Competitiveness and Productivity Centre), 2013, Assessment of the conformity of the activities of vocational training schools with the requirements of labour market in the economic regions of the Republic of Azerbaijan, the attitude of employers to vocational competencies and standards, and also the identification of labour market needs, Baku – commissioned by the MoE

OECD (Organisation for Economic Cooperation and Development), 2009, Learning for jobs, OECD review of vocational education and training, Paris

World Bank, 2013, SABER – Systems approach for better education results, last accessed 5 July 2013 at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:22711881~menuPK:617610~pagePK:148956~piPK:216618~theSitePK:282386,00.html>

