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**THEMATIC REVIEW OF NATIONAL POLICIES FOR EDUCATION - BULGARIA**

**Stability Pact for South Eastern Europe**

**Table 1**

**Task Force on Education**

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## FOREWORD

This report on education in Bulgaria has been prepared within the framework of the Centre for Co-operation with Non-Members (CCNM) of the OECD as part of its programme of co-operation with the Stability Pact for South Eastern Europe. The Secretariat, as Co-ordinator for General Education Policy and System Change of the Task Force for Education on Table 1 of the Stability Pact, has carried out a Thematic Review of Education Policy of the region with sections on Albania, Bosnia-Herzegovina, Bulgaria, Croatia, FYROM, Kosovo, Moldova, Montenegro, Romania, Serbia, and a chapter on regional issues. The themes covered are teachers, curriculum, governance, and early childhood education and care. Each section provides an overview of the education system, issues and barriers to reform, and recommendations. The recommendations are designed to be of use for national policy makers and to assist Stability Pact donor countries and institutions target regional assistance. In addition, the reports can serve as the basis for more detailed analysis of individual education sectors.

The transition of the region towards a pluralistic democracy and a market economy has been marked by economic, social and political changes of extraordinary breadth and depth. The talents, skills and knowledge of the population are crucial in this process; hence the ambitious scale and urgency of the reforms being advanced for education which led the members of Table 1 of the Stability Pact to designate education as one of the four priority areas.

On the basis of background material prepared by the education authorities in the region, existing reports and information supplied in meetings in the course of site visits, this Thematic Review provides an analysis of the education system in light of the social and political context of the region and priority issues of access and equity, quality, efficiency and governance.

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The opinions expressed and arguments employed in this report are the sole responsibility of the authors and do not necessarily reflect those of the government of Bulgaria, the OECD or the governments of its Member countries.

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## BULGARIA

### General Data

<b>Area:</b>	110 910 sq. km. (slightly larger than Tennessee)
<b>Number of inhabitants:</b>	7 973 614 (March 2001 census) <sup>1</sup>
<b>Population density:</b>	71.9 per sq. km
<b>Population growth:</b>	Negative (-1.16% average; -9% in rural areas). Bulgaria has one of the 'oldest' age structures in Europe with those over working age (54 for women, 59 for men) accounting for 24.7% of the population. Only 19.1% are under 19. Birth rates have dropped steeply; primary school population will drop by 31% by 2006/7.
<b>Urban/rural distribution:</b>	69% urban/31% rural (2000 estimate). Considerable urban drift; only 45 of the 262 municipalities are considered rural ( <i>i.e.</i> with less than 50% urban population).
<b>Ethnic composition:</b>	Bulgarian 83%; Turkish 8.5%; Macedonian 2.5%, <sup>2</sup> Roma 2.6% <sup>3</sup>
<b>Religion:</b>	Bulgarian Orthodox 83.5%; Muslim 13%; other or none 3.5%
<b>Languages:</b>	Bulgarian (secondary languages along ethnic lines)
<b>Literacy:</b>	99% (2000 estimate)
<b>Labour force:</b>	2.8 million (1999), 26.4% in industry including mining, manufacturing and construction; agriculture 25.7%; services 47.9%
<b>GDP per capita:</b>	USD 5 600 Per capita. <sup>4</sup> This compares with USD 13 207 for Slovenia, USD 6 595 for Romania, and USD 4 169 for Macedonia. The European Union average is USD 19 638 and the average for OECD countries is USD 19 859.

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1. The previous census (1992) stated 8 948 649; the decline is mostly due to emigration. The 1992 figures have been contested on methodological and political grounds and are considered unreliable.
  2. In the March 2001 census, only 2 720 people considered themselves Macedonian; this is about 0.3%. However, 'the Macedonian Question' has historically been one of the most contentious issues in the Balkans, and successive censuses have given conflicting figures.
  3. Here the official and un-official figures vary widely, from less than 3% to 9%. Officially, there are 288 000 Roma in Bulgaria; the actual number appears to be at least 550 000 or even between 700 000 and 800 000, which would be around 8 to 9%.
  4. At Purchasing Power Parity, Source: WIIW Database incorporating national and international statistics.

<b>Per cent of State budget on education:</b>	17.3% in 2002 (up from 12.5% in 1999). Most schools are funded through their municipalities but some receive direct funding from the MoES (specialised schools and <i>technikums</i> ).
<b>Inflation:</b>	After hyper-inflation (242% for the month of February 1997), inflation was 6.2% in 1999, 4.8% in 2001 and currency is stable. GDP growth in Bulgaria for 2001 was 5%, slightly down from 2000 (5.8%) which was the highest since 1989.
<b>Unemployment:</b>	17%; 13.8% registered (November 1999). 55% remain unemployed for more than 1 year. Youth unemployment (16-30 years old): 37% of all unemployed.

### Introduction and Context

The First Bulgarian Kingdom existed from 681 until 1018, and as such is the oldest state in Europe still existing under the same name. During this period, Bulgaria was converted to Christianity (865), and the first translations of the scriptures from Greek into Slavonic were made in Old-Bulgarian, which became the language not only of the church but of literature and civic administration of a number of Slavic and non-Slavic countries in the region. The Old-Bulgarian alphabet, known as the Cyrillic script, remains in wide use, not only in Bulgaria itself but in Belarus, Ukraine, Serbia, Russia and other countries. The Second Bulgarian Kingdom (1185-1396) resulted from a successful uprising of Bulgarian aristocrats; Turnovo became the capital until the Ottoman invasion in 1396. Bulgaria remained an Ottoman province for the next 500 years, but Bulgarians remained a relatively free people, able to travel, conduct business, and enjoy freedom of religion. Nevertheless, when an uprising in April 1877 was brutally put down by the Turkish authorities, world public opinion (led by Russia in the Russian-Turkish War 1877-78) forced Turkey to give Bulgaria its independence. The European powers, fearing Russia's and Bulgaria's dominance in the Balkans, intervened at the Congress of Berlin (1878), and limited Bulgaria's territory. The Treaty of Berlin (1878) created the Principality of Bulgaria and Eastern Romania, later (1885) united into a single entity. In 1908 Bulgaria declared its independence as a constitutional monarchy.

Having fought on the losing side in both World Wars, Bulgaria fell within the Soviet sphere of influence, and became a People's Republic in 1946. Communist domination ended in November 1989 when Todor Zhivkov's government resigned. The first free elections were held in 1990. A democratic Constitution was adopted in 1991. Today, reforms and democratisation are aimed at eventual integration into the EU and NATO. The government is a parliamentary democracy with 9 administrative divisions (provinces). The legislative branch consists of a uni-cameral National Assembly with 240 seats; members serve 4-year terms. The highest court is the Supreme Court, with a chairman appointed by the President for 7 years.

Bulgaria's transitional recession was deeper and longer than that of most other former communist economies. Despite an initial bold reform programme, subsequent political instability and erratic macro-economic and fiscal policies led to high inflation and dramatic exchange rate depreciations. Output fell for 5 consecutive years following the collapse of the communist regime; GDP declined by 30% over the 1990-94 period, and was accompanied by a sharp rise in unemployment.

In 1994-95, the economy registered some growth, but the then-government was unable to contain fiscal deficits and tackle structural problems in enterprise and banking, and another downward spiral reached its lowest point in early 1997. By January of that year, the economic crisis turned into a political one which further aggravated the economic situation. The lev depreciated to 3 000 per USD; inflation reached 242% for the month of February alone. The impact on Bulgarian households was disastrous. Even with a doubling of nominal wages in February and another 60% raise in March, the average wage fell to USD 20/month – not enough to buy the most basic food for a family of three. Pensioners and others on

fixed State incomes saw their benefits drop to USD 10/month. Popular and political protests brought down the government, and a more reform-oriented government was elected in April 1997.

Its foremost achievement has been the rapid restoration of macro-economic stability, *e.g.* by appointing a national currency board, pegging the leva to the Deutschmark and bringing down the rate of inflation. The challenge now is to maintain stability and resist inflationary pressures without further eroding social protection or health and education spending.

Poverty and inequality are major social issues. A working group of the Ministry of Labour and Social Policy (MoLSP) estimated that more than 23% of the population lived below the poverty line in 1997, compared with only 5% in 1992.<sup>5</sup> Nearly half of Bulgaria's poor live in rural areas, even though about one-third of the population lives there. Poverty and unemployment disproportionately affect families with children, and ethnic minorities (especially Roma and Turks). A very high percentage (as high as 85% in 1997) of households receive some sort of income benefit, regardless of household income, often from multiple sources. Efforts are now being made to target available resources more sharply, benefiting those most in need, rather than spreading them thinly to so many. A new Act on Unemployment Security serves as the first social framework policy document for Bulgaria; it supports active labour market programmes for young people (with nearly 40% unemployment), ethnic minorities, and long-term unemployed.

The Government of Bulgaria has laid out its development strategy for the next 6 years in the National Economic Development Plan (NEDP), with accession to the EU as its main objective.

## The Education System

Features of the education system are as follows:

- Age at which compulsory education starts: 6-7.
- Age at which compulsory education ends: 16.
- Levels of educational governance: In theory, four: National (MoES), regional, municipal, and school level. In reality, the regional level (28 Educational Inspectorates) are branches of the national MoES, so that the levels are only three.
- Structure of the education system: *Pre-school*: ages 3-6 with some crèche provision for under-3s. *Junior* grades 1-4; *Middle [or 'pre-secondary']* grades 5-8. Grades 1-8 (called *Primary*<sup>6</sup>) cover the compulsory part of education, and are mostly provided in the same school. *Secondary* schools are of 4 main types: gymnasium grades 9-12; specialist high schools with profiles in particular curriculum areas – *e.g.* sciences, humanities – they often select students at end of grade 7; vocational/technical schools and art schools, 3 or 4 years; vocational training schools, 2 or 3 years. Religious schools are recognised as equal to secular schools as long as they meet State requirements.

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5. IBRD figures, 1998.

6. The English translation of Art. 26 of the Public Education Act of 1991 (as amended through January 1999) uses these terms: Junior grades 1-4; Middle 5-8; Primary 1-8; Secondary 9-12; Specialised secondary 8-12; Comprehensive 1-12; Vocational and technical schools 8/9-12/13; Vocational training schools 7/8 for a 3-year course, or 9-12 for a 4-year course, or vocational colleges 2 years if entered after completing Secondary; Sports schools; Art schools, Special schools. This report will try to use these terms as much as possible, although many Ministry documents use different terminology.

- Examination/transition points: Children who complete junior (grades 1-4) education receive a leaving certificate from their school; at the end of full primary (grade 8) they receive a certificate (again based on internal assessment by teachers) that entitles them to continue into grade 9. There are State matriculation exams at the end of grade 12; a new, external form of Matura is due to be introduced in 2003.
- Special features: Steep declines in birth rates mean that by school year 2006/7, there will be 31% fewer children in grades 1-4 and 23% fewer in grades 5-8. These changes are of major concern in the MoES, and underpin the MoES's school optimisation policy.
- Fragmented and complex secondary school system.
- Steep rise in the number of students in higher education, from 120 000 in 1990 to 258 000 in 2000.

### Financial issues

According to their primary source of funding, schools are classified as 'state' or 'municipal' schools. State schools, which include special needs and vocational schools, are funded directly from the MoES or other relevant line ministries. Municipal schools are funded from three sources: (1) a block grant to the municipality from the Ministry of Finance for social services, including education; (2) a share of the municipal tax revenues; (3) extra-budgetary funds raised by the schools themselves.

Schools – except for those that take part in a 'delegated budget' pilot programme involving 104 schools – do not manage funds themselves. Services are provided and paid for by the municipality; salaries are paid centrally by the municipality; maintenance of buildings is done and paid for by the municipality. The 'delegated budget' approach may now be extended to all schools.<sup>7</sup>

Very little money is being spent on teaching and learning materials. While 70% of the budget goes to pay salaries and 12% to pay for utilities (mostly heating), only 1% is spent on school libraries and teaching materials.

Salary differentials from one step on the teacher scale to the next is only 8 leva (approx. USD 4) per month, so that the difference between a beginning teacher (level I) and one with the highest qualifications (level V) is only 40 leva or USD 20 per month. There is no incentive for teachers to develop professionally, especially since in-service teacher training courses can be expensive. A reduction in the teaching force combined with a better career structure for remaining teachers would save money and improve teachers' professional and financial status.

### Other issues

Decentralisation and control. Lines of communication, authority and accountability between the MoES and its 28 satellites, the 9 regional districts (*oblasti*), the 262 municipalities (*obshtini*)<sup>8</sup> and the schools are fragmented and compartmentalised. 'Who does what' in education?

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7. World Bank information, 2000.

8. Municipalities in turn are composed of 'human settlements' (*naseleni mesta*), of which there are about 5 300 in total including 238 towns, 4 440 villages, and 560 smaller units like hamlets, railway stations,

Selection rather than education for all. The system favours the high-achieving students, but seems less concerned about retaining and motivating average and slow learners. *'Who is being served' in education?*

Low participation rates after grade 8 (only 67% of age cohort), and high drop-out rates especially among minorities. Overall, drop-out is estimated officially at 6/7% during the compulsory phase of education; real figures are likely to be higher, but even at 6% it means there are 45 000 children not in school who should be. Officials at the MoES and the local inspectorates do not seem very concerned, and frequently state that drop-outs are 'mostly Roma'. But the law on compulsory education applies to *all* children in Bulgaria, of *any* ethnic origin; moreover, statistics and the team's own data indicate that the problem is not confined to Roma children. The issue needs to be taken much more seriously, analysing the school environment, the content and process of instruction as well as the social context, and any unnecessary barriers should be identified and removed insofar as possible, certainly through grade 8.

## Statistical data

Table 1. **Participation rates by level of education, 1999/2000**

School level	No. of students	% of age group	Girls (% of total)	Pupil:Teacher Ratio	Total no. of schools	Of which: Private
Pre-school (ages 3-6)	211 943	66.4		11:1	3 536	18
Primary school, grades 1-8 (ages 7-15)	759 931	95 <sup>1</sup>	48	12:1	1 997	25
Secondary school, grades 9-12 (ages 15-19)	340 271	67	49	11:1	1 154	56
General		29		12:1	577	21
VET		38		11:1	577	35
Tertiary education						
<i>Total</i>	258 230	35	57	10:1	92	
University					41 <sup>2</sup>	4
Non-university					51	n.a.
<b>Totals</b>	<b>1 570 375</b>				<b>6 779</b>	<b>159</b>

1. Gross enrolment for grades 1-4 is 102%, but only 87% for grades 5-8, an unacceptably large decrease.

2. According to the MoES, there are 41 universities; 29 of them public, 4 private, 8 military. There are pedagogical faculties in 10 universities to offer pre-service teacher training. They do not co-ordinate their curricula or requirements, however. Interview, 23/10/2000.

Source: CEPS, Ljubljana, 2001.

## Legal and Policy Framework

Apart from the Constitution (1991), the Local Development and Local Administration Act of 1991, the Municipal Budget Act of 1997, the Regional Development Act of 1999, and major policy documents such as the National Economic Development Plan (NEDP), the main laws forming the legal framework for education are:

monasteries. Larger municipalities, like Sofia, are subdivided into *rayoni* (boroughs). Below municipalities, there is sometimes another sub-level of local government, the mayoralty or *kmetstvo*, but they usually have no budget and limited representation on municipal councils.

- *The Public Education Act* adopted 1991 and amended and supplemented several times thereafter; in force in its present form since January 1999,<sup>9</sup> but with some changes due to subsequent adoption of the HE and VET Laws.
- *The Higher Education Act* adopted 1991 and amended and supplemented several times; in force in its present form since July 1999 with one amendment thereafter (also July 1999).
- *The Law on the Level of Schooling, the General and Educational Minimum and the Syllabus* within the public education system. Adopted July 1999 affecting some clauses of the Public Education Act.
- *The Vocational Education and Training Act* adopted 15 July 1999, also affecting some clauses of the Public Education Act.
- *There are also a number of important policy papers, e.g.* the Higher Education Strategy, the new Code on Implementation of the Public Education Act, and project-related papers on Finance (delegated budgets) and Vocational Education and Training (EC-Phare).

### **Administration, Governance and Finance**

*The Council of Ministers* is responsible for setting state policy in education. *The Ministry of Education and Science* is, according to the Law, a specialised body of the Council of Ministers responsible for the management of the education system. This arrangement places the MoES in the role of managing, rather than setting, education policy although the Ministry does have the power to issue regulatory decrees, and to exercise control over the activities of all types of kindergartens, schools, servicing units, and the levels of schooling. Under a new Law on Standards (General Education Minimum, July 1999), the MoES is also in charge of setting the school timetable in order to meet state standards, and of overseeing the implementation of the (core) curriculum in all schools and kindergartens.

For Vocational Education and Training (VET), the new Law on VET places responsibility on the National Agency for Vocational Education and Training (NAVET), with a Managing Board with MoES representation but with a chairperson appointed directly by the Prime Minister. Other Ministries, such as the Ministry of Labour and Social Policy and the Ministry of Health, and social partners including employers' organisations and trade unions, are also represented on the Managing Board of the NAVET.

*Education Inspectorates* are, again by law, 'local subdivisions of the MoES'; they are legal entities, but the MoES specifies their structure, functions and territory, and issues contracts with inspectors.

Municipalities provide – compulsory school education of children up to 16 years of age:

- Health care and safety care to schools and kindergartens, and the children in them.
- Funding for maintaining, constructing, furnishing and repair of schools and buildings under their jurisdiction.

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9. By law, the Minister of Education and Science was required to issue a new Code of Implementation of the Public Education Act within a year of its coming into force, *i.e.*, by January 2000. This Code is another important framework document.

- Funding for meeting state standards referred to in the Law, as well as support for all curricula of municipal kindergartens, schools and servicing units.
- Transportation, meals etc. for children, and conditions in canteens, boarding houses, recreation and sports facilities.
- Grants and special support for children in the schools under their jurisdiction.

Clearly, municipalities fulfil an essential role in the day-to-day provision of education to children up to the end of compulsory schooling.

### *Local self-government*

This form of government in Bulgaria has historic roots going back at least 100 years, although between 1945 and 1989 it was disregarded until the Constitution of 1991 reinstated it. The Sixth National Human Development Report (NHDR) for Bulgaria<sup>10</sup> states as its basic premise that ‘good governance, greater social cohesion and co-operation among all development actors in Bulgaria is now essential not only to achieve EU membership, but to consolidate stability and growth’. Strengthening regional institutions and empowering municipalities are important: ‘Human development is the end, and (decentralisation) policies are the means to advance more peace, stability, equity and sustainable growth’.

While this is essentially true, for this review it is useful to reflect that decentralisation tends to be a political rather than an *educational* agenda, and that it is by no means certain that decisions made locally are *educationally* better, more rational, or more fair – for example to local minorities and their equal access to educational opportunities and resources. A balance needs to be struck between the protection of legal and educational rights and standards for all children regardless of who or where in Bulgaria they happen to be, and local priorities or traditions.

Bulgaria’s administrative structure is multi-layered and complex, but in decentralisation it is the municipal level that will be the most important. According to the NHDR, Bulgarian municipalities today show five common characteristics: growing social disparities; weak management capacity; top-down decision-making patterns; lack of appropriate tools *e.g.* technology, investment, strategic planning, infrastructure such as roads and communications; and lack of resources.<sup>11</sup> While resources are of the most urgent interest, there is a desperate need for new skills and methods at regional and local levels to produce development plans in a strategic and participatory way. The lack of these skills was one of the reasons why the first attempt (1999) at strategic planning at local level was not successful. Only 18% of municipalities submitted plans that could at least be used as a development tool even if they were not backed by funding or implementation plans; most other municipalities either did not respond (60%) or submitted simple wish lists of capital investment projects (22%).<sup>12</sup>

In addition to lack of experience in local planning, many municipalities have large debts and liabilities (106 municipalities had combined liabilities amounting to 143 million leva, and in October 2000 Pleven district alone reported a deficit of 5 million leva). These have now been paid, but new debts are being created which points not only to resource and financial management problems but also to inadequate

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10. See References. The first of these reports was published in 1995 with UNDP support. They are considered an important reference point for national policy, including education policy.

11. *Ibid.*, Chapter 3.

12. *Ibid.*, Chapter 3.

municipal budgeting. Therefore, simply devolving further financial responsibilities to municipal level, without additional resources or incentives for efficiency measures or local initiatives, is likely to make problems worse: 'Municipalities get what is possible but not what is necessary' to meet the obligations delegated to them.

The issue of central-regional-local relationships is now being addressed through the creation of 6 Social and Economic Cohesion Commissions whose main task is to combine local and central strategies. Ministry, regional and local representatives are joined by civil society organisations such as trade unions, NGOs, chambers of commerce etc.

*The Pedagogical Council* is, according to the Law, 'a specialised management body' which discusses and settles major issues related to pedagogy. It is therefore a professional, rather than an administrative, entity.

At the level of the school, *School Boards* are 'public bodies' set up to provide assistance to a school or kindergarten. They are subject to a code of practice and guidelines issued by the MoES.

*Head teachers or school directors* are required to have academic degrees, and for state schools and kindergartens their contracts are with the MoES; for municipal schools, their contracts are with the relevant municipality, while for municipal kindergartens, the Mayor of the municipality contracts with the heads or directors. Decisions by heads of state schools and kindergartens may be overturned by the MoES; decisions made by heads of municipal schools by the head of the relevant education inspectorate; and decisions made by heads of municipal kindergartens by the Mayor of the municipality.

### ***Types of schools***

According to the Law of Public Education (Article No. 26), instruction is provided in these types of schools:

- 
1. Junior – grades 1-4
  2. Middle – grades 5-8
  3. Primary – grades 1-8
  4. Secondary – grades 9-12
  5. Specialised secondary – grades 8-12
  6. Comprehensive – grades 1-12
  7. Vocational training schools – from grade 8 or 9 through 12
  8. Vocational schools – from grade 6 or 7 offering a 3-year course; or, from grade 9 offering courses of up to 4 years; or, after secondary education acquisition, a 2-year course
  9. Sport schools
  10. Art schools
  11. Special schools for children with special educational needs (SEN).
- 

Schools of different types and levels are often housed in the same building and under the leadership of the same school principal. The following sets of grades and levels are in existence:

Table 2. **Combinations of grades and levels in the school system**

I-II	I-IX	I-XII
I-IV	IV-VIII	VII-XII
I-VIII	IV-XII	VIII-XII

Source: School Finance in Bulgaria in an Era of Educational Reform by Douglas L. Adkins.

### *Issues and Barriers in administration, governance and finance*

#### *Issues related to school types*

- *Possible barriers to school attendance after grade 4 or 8.* Rural areas have mostly the type of schools shown in the first column of Table 2. The most popular type of village school is junior (1-4) plus middle (grades 5-8). The MoES wants to retain junior schools in most of the villages, and to transport children to middle schools. But in reality, how accessible is middle and secondary education for rural children? Could the decline of enrolment at middle and secondary level be related to limited access (for example lack of transport)?
- *Uncertainty about the future of comprehensive or ‘neighbourhood’ schools.* Secondary education can be obtained at comprehensive secondary schools (grades 1-12), secondary classes, or specialised secondary schools (*gymnasia*). The future of comprehensive secondary schools is problematic, and is related to the growing emphasis on early selection into specialised and selective (even elitist) education.<sup>13</sup> Parents do not believe that their children will be adequately prepared to enter university if they study in a comprehensive school. *Gymnasia* or selective specialised schools provide better chances, in the opinion of parents. But students who are average or slow learners, or who are still undecided about their future studies, are left behind the barrier, and comprehensive schools become in effect schools for ‘left-over’ youngsters. This is demoralising for students and teachers alike, and could be one reason why drop-out levels rise after grade 7 or 8.
- *Selection rather than education.* A national education system has an equal duty towards every child’s education. Too often, and quite commonly in post-socialist countries, schools appear to be more interested in selecting the few than in educating all. In Bulgaria, *gymnasia* or specialised subject schools select students by competition, often as early as grade 7; one gymnasium visited by the team appeared proud of the fact that it selected 78 students from among 1 000 applicants for grade 8. There was no interest in what had happened to the 922 students who had been rejected. It is of course far easier (and more pleasant) to select and teach ‘the best’ than it is to educate all, but that is exactly the challenge a public education system must face if it is to serve the whole nation.

13. One comprehensive (1-12) school visited by the team had not had a grade 9 or 11 for several years, but did have some students in grades 10 and 12: ‘nearly all students leave for profiled schools after grade 7 or 8...Comprehensive schools become ‘sink’ schools, where only those students who did not manage to get into a profiled school remain. “... We have to work hard to attract and retain any students, although we live in a catchment area of 17 000 people”. Interview, October 31 2000.

*Issues related to finance*

- *The allocation of school budgets is controlled centrally*, either through the MoES or through the municipalities. The MoES directly funds and manages special schools and vocational schools; others are the responsibility of municipalities. In all cases, financial management is exercised through strictly controlled budget headings and allocations set by the funding authority. School directors have little or no financial autonomy. Delegated budgets were identified in 1992 as a possible means to increase financial efficiency and school-level quality; although plans existed to start a pilot project in 1995, the financial crisis delayed the introduction of necessary legislation. However, a EC-Phare funded project was started in March 1998 with the objective of moving Bulgaria closer to European ‘best practice’ in education finance.
- *This ‘Financial Management of School Education’ (FMSE) project* involved 104 schools and centres in four pilot areas (Blagoevgrad, Kjustendil, Nesebar, and Silistra), involving both MoES-funded and municipality-funded schools. Pilot schools were given delegated budgets from March 1998, along with computer equipment, a management information system, and an incentive fund to develop the innovative capacity of schools. Different types of funding formulas were tried in the participating regions, and indications are that school directors as well as municipalities have reacted positively. Under the new Government of Bulgaria/World Bank project, the delegated budgets scheme will be expanded to other regions and eventually nationally. In 2001, 20 more schools joined the scheme, and another 15 followed in 2002.
- *However, some school administrators are sceptical about the reality of ‘autonomous accounts’ for schools.* Budgets received from the municipalities are perceived as “arbitrary ...sometimes we get 10 000 leva, sometimes 4 000 leva (USD 2000) the funding formula is not transparent, and the regulatory framework is inadequate”. Some municipalities do not permit schools to keep moneys they raise themselves, *e.g.* from room rentals, on grounds that the school building does not ‘belong to’ the school; nor can extra-budgetary funds be used to raise teachers’ salaries. One positive aspect of devolved budgets is that schools know how much money will be available; moreover, they receive it at the start of the school year, and can plan accordingly.

**Equity in access, attainment and achievement**

One of the strengths of Bulgarian education is that the school system is capable of providing schooling for the vast majority of children up to the age of 16. The school network created in socialist times has been maintained, and there is no lack of schools or teachers. However, true equality of educational opportunity is not simply a matter of provision; it has four main components – equality in access to, survival in, treatment during, and life chances as a result of, education – and not all children are ‘equal’ in all four.

Nevertheless, Bulgaria has managed to maintain pre-1989 levels of pre-school enrolment (62% of the 2-8 age group), and statistics show that access to grades 1-4 is virtually universal (gross enrolment rate stands at 102%). However, gross enrolments at middle (grades 5-8) and secondary levels (9-12) decrease to 87% and 68% respectively. This is particularly worrying for grades 5-8, which are still part of compulsory education.

*Equity and Ethnicity*

More than 30 minority groups live in Bulgaria,<sup>14</sup> of which the most numerous are the ethnic Turks, estimated to number at least 900 000 before the mass exodus in 1989, and the Roma, estimated at about 550 000<sup>15</sup> to 800 000 although official numbers are lower. Other large minorities are the ethnic Macedonians living mostly around Blagoevgrad and the Pirin regions, and Bulgarian Muslims, a religious rather than ethnic minority, mostly living in the Rhodope mountains and in the Pirin region. Although most ethnic minorities have lived in Bulgaria for centuries – the ethnic Turks since the end of the 14<sup>th</sup> century – and despite many campaigns of (often forced)<sup>16</sup> assimilation, most Bulgarian minorities have retained their identity and culture, and live in identifiable ethnic communities rather than dispersed throughout the population. This would facilitate targeted efforts to improve minority education and employment opportunities.

**Table 3. Structure of population according to their age and ethnic group (per cent)**

Age	Bulgaria (national)	Bulgarian	Turks	Roma <sup>1</sup>
0-9	12	10.9	16.8	25.4
10-19	14.5	13.7	18.1	23.2
20-29	13.3	12.7	16.5	17.4
30-39	13.7	13.4	14.9	13.9
40-49	14	14.4	12.2	9.2
50-59	12.1	12.7	9.9	5.8
Above 60	20.4	22.2	11.6	5.1

<sup>1</sup> Because of their higher birth rates and lower life expectancy, the Roma community is significantly younger than other population groups.

Source: *Rezultati ot prebroyavaneto na naselenieto. Tom I – Demografski karakteristiki* (The Results from People Census, Vol. 1 Demographic Characteristics), Sofia: Natsionalen Statisticheski Institut, 1994.<sup>17</sup>

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14. Olena Marushiakova and Vesselin Popov, 'Study of the Education Situation of Ethnic Minorities in Bulgaria', 1999. In addition to Turks, Roma and "Pomaks" (Bulgarian Muslims), estimated to number 1.5 million in all, there are around 30 other groups – Armenians, Jews, Russians, Tartars – numbering approx. 10 000 all together.
  15. Local authorities gave a figure of 550 926 at the end of 1990, but this is likely to be low because of the continuing social disadvantage attached to being a Roma.
  16. There are well documented accounts of forced name-changing and other assimilation campaigns against Turks, Pomaks and Roma, especially between 1984 and 1989. Protests and demonstrations were often brutally put down, especially in villages, and eventually most people did 'voluntarily' accept new names and identity cards because otherwise they would not be able to receive pensions or other state benefits, and in worst cases they would face arrest, internal banishment, or imprisonment in detention camps. In January 1990, Todor Zhivkov was arrested and charged with 'inciting ethnic hostility and hatred' through the assimilation campaigns. A law was passed in 1990 to restore Muslim (Pomak and Turkish) names but the law did not specifically include Muslim Roma. See Hugh Poulton, *op.cit.*, pp. 105-171. However, it is still difficult to give accurate estimates of the size of ethnic minorities because of at least one whole generation of forced assimilation and name-changing.
  17. Olena Marushiakova & Vesselin Popov, *op.cit.*, 1999.

Bulgaria has made positive efforts to improve the living standards and educational opportunities for minorities. Parliament ratified the *'Framework Convention for Protection of National Minorities'* in February 1999, and many NGOs and other agencies are active, especially UNICEF, Open Society, the International Centre for Minority Studies, and the Balkan Foundation for Cross-Cultural Education.

There is, however, no explicit national strategy for education of minority groups, and conditions, especially for Roma,<sup>18</sup> are still far from equal. Small-scale discrimination against Roma continues in daily life. The literacy rate among Roma is considerably lower than in the general population, and in 1990 both the Bulgarian and international media reported that 80% of prisoners were Roma.<sup>19</sup> In general, fewer Roma children attend kindergarten, and many Roma children start their primary schooling late, *e.g.* at age 8 or 9. There have also been reports of declining school attendance among all Bulgarian children (see under Drop-out, below) but particularly among Roma. Between 1995 and 1997, the share of Roma children age 7-14 attending school fell by 60%, and for Bulgarian children of the same age group by 20%. As for secondary school, only 6% of Roma completed secondary education compared with 40% of the total population.<sup>20</sup> These 1997 figures probably reflect the crisis of 1997, but once children have dropped out of compulsory education, they will not find it easy to drop back in.

### *Equity and Language of Instruction*

In line with Marxist-Leninist theory, the first Constitution of the People's Republic of Bulgaria (1947, Art. 71) stated that although the study of Bulgarian was obligatory in schools, national minorities had the right to study in their vernacular. A Turkish language department was set up in Sofia University. However, in 1956 Turkish schools were merged with Bulgarian ones; by 1971 the teaching of Turkish in Bulgarian schools had ceased; in 1974 the Turkish department at the University was shut down; and by the mid-1980s the speaking of Turkish was banned in all public places on penalty of a significant fine (one month's salary on a second offence).

The ethnic Turkish minority, along with Roma, suffered most from linguistic repression during the Zhivkov period. However, at present, 'school children whose mother tongue is other than Bulgarian may, besides the compulsory study of the Bulgarian language, study their mother tongue in municipal schools under the protection and control of the state' (Art. 8(2) of the Public Education Act of 1999). There are an estimated 37 000 ethnic Turkish students in the system with about 700 teachers. Some schools with 100% Turkish-speaking students and 100% Turkish-speaking teachers exist, but the language of instruction is still (by law) Bulgarian, although mother tongue can be taught as first and second foreign language in the core curriculum. From grade 8 (or 9 depending on the type of school) onwards, Turkish is taught 4 hours per week but as an elective subject additional to the core national curriculum.<sup>21</sup> Textbooks come from Turkey, but many are outdated, and materials are lacking.

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18. It is important to state here the great diversity among 'Roma' in Bulgaria. There are reportedly as many as 60 different ethnic sub-groups, and in addition there are rural/urban, assimilated/non-assimilated, Rom-speaking/Bulgarian-speaking, and religious distinctions. Therefore, generalisations are almost certain to be contentious.

19. Bulgarian Telegraph Association and BBC, October 1990.

20. Ringold, Dena (2000). 'Education and the Roma in Central and Eastern Europe: Trends and Challenges'. Unpublished paper presented at the European Regional Education for All Conference, Warsaw, Poland, February 7.

21. There is one Turkish private school where Turkish is the second language after grade 7.

There is one expert for the Turkish minority in the MoES, and 5 in the inspectorate for the whole country. There is also one MoES expert for the Jewish minority (600-650 children aged 6-14, with 25 Hebrew-speaking teachers), but none for the Roma minority, which is much larger and at much greater risk of social exclusion and early drop-out. Although in Bulgaria half<sup>22</sup> the Roma population speak Roma language (Romanes or Rom) at home, it is not being taught in schools on the basis that there is no standard orthography for the language and few teachers speak it. Through the efforts of NGOs and individuals, teaching materials have been prepared and a group of part-time teachers of Rom has been trained, but these initiatives can only work if there is commitment at all levels.

Two further issues were raised: first, that not all minority-language children have the opportunity to study their mother tongue. Regulations specify there must be a group of at least 13 students before minority language teaching must be provided, although some municipalities allow smaller groups (7-8). Secondly, many children arrive in school with little or no knowledge of Bulgarian and preparatory classes for Turkish or Roma children are needed to help their transition to Bulgarian-language primary schools. In one kindergarten visited by the team, teachers spent most of their time trying to teach 3-6 year olds (mostly Roma) to speak Bulgarian, but they complained they 'had to start all over again every week'. None of these teachers spoke Rom; communication with the children and their families was therefore difficult. There is no clear strategy for integrating Bulgarian and mother-tongue teaching or for bi-lingual work with very young children, which creates unequal conditions for ethnic minority children when they enter grade 1.

### *Equity and Resources*

#### Provision and Attainment

Overall, there are enough school places for all children, and school attendance at least at primary (7-14) level is high at an estimated 90-92%, although there are increasing worries about drop-outs even during the compulsory cycle. Attendance post-primary is less satisfactory (67% of the age group), in particular in some types of vocational education. Provision of school places therefore seems less of a problem than attendance. Not surprisingly, children from the poorest families have lower attendance rates (78%, 1997 figures) than those from affluent ones (95%).<sup>23</sup>

#### Drop out

Official figures about drop-out are around 6-7% of the total school population grades 1-10, or about 45 000 children per year. However, there is the phenomenon of 'hidden' drop-out – approximately one-third of Bulgarian students have as many as 100 unexcused absences per year. These children are often not counted as 'drop-outs' but in reality they miss nearly one-half of their school time. Inevitably, their attainment is seriously affected.<sup>24</sup> In addition, the way drop-out numbers are measured is based on children who *are* enrolled in schools but have more than a specified number (now set at 'more than 60', according to the new MoES Regulations Code to the Law of Education) of absences; it does not count children who are not enrolled in school at all or children who attend irregularly. Finally, children with too many

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22. This varies widely among sub-groups, from 85% in some communities to 14% in others; 50% is an average. Of the remaining 50%, only about 14% of Roma speak Bulgarian, and about 36% Turkish.
23. Bulgaria Integrated Household Survey, 1997, comparing the bottom quintile of family expenditure with the top quintile.
24. Bulgarian National Observatory, 2000. Unpublished study, p. 10.

unjustified absences are often punished by expulsion from school<sup>25</sup> – which appears an unnecessary response, since these children have already *de facto* excluded themselves. It would be better to find the reason for the frequent absences, and try to help the child stay in school. Punishing the child for poverty or family difficulties (two major reasons for non-attendance) is unhelpful as well as unfair.

Clearly, children who are still in school but struggling for a variety of reasons are more numerous, and easier to reach, than those who have already dropped out. Yet there appear to be few concerted efforts at drop-out *prevention*, although some excellent outreach programmes exist that try help drop-outs to return to school. Unfortunately these programmes are often NGO-funded and their long-term sustainability is uncertain. One EC-Phare-funded programme ('A School for Everyone – Bulgaria') visited by the team focuses on open access and second-chance education for drop-outs through 13 pilot centres for vocational education, secondary education, and primary education, teacher resource centres and 'school dialogue centres'. They offer evening classes, remedial and guidance sessions, and in-service training for teachers to help out-of-school youngsters 'drop back in'. The drop-out prevention work involves about 5 000 at-risk children, and the programme has thus far succeeded in bringing back some 800 drop-outs. However, children often drop out for social and economic reasons that cannot be resolved by the school system alone; moreover, 'drop-ins' frequently face the same problems (rigid curricula and exams, hostility from teachers and class-mates) that caused them to drop out in the first place, and not all of them stay. With its EC-Phare funding running out, the programme can no longer function properly, and there is thus far little evidence that the MoES will take over its work.

## Gender

Information on educational attainment by gender shows that in the ethnic Bulgarian population gender balance appears to be even with slightly more males than females attending through secondary school. The percentage of female students in higher education is 57%. (See Table 1).

The same is not true of some ethnic minorities, however. A survey of 831 households in 8 major Roma settlements<sup>26</sup> showed that 29% of women had never gone to school or had dropped out before finishing grade 4, compared with 11% of men. Moreover, early marriage and child-bearing among Roma girls affect their staying-on rate in school. A survey conducted in Bulgaria in 1998 (confirmed in 2000) showed that 40% of Roma girls marry before the age of 16 and 80% before the age of 18.<sup>27</sup>

## Resources

In common with many other countries in the region, a very high percentage of the budget for education is spent on current expenditures such as salaries (at least 70% nationally) and utilities such as heating (at least 12%), but capital expenditures and investments have been low or non-existent. For example, only 1% is spent on teaching and learning materials, which seriously hinders the introduction of new curricula, subjects and teaching methods into Bulgarian classrooms. Moreover, since municipalities vary in their capacity to raise tax revenues, the provision of resources to schools is also uneven. In communities with large numbers of poor and unemployed families, schools often have only the most basic furniture and facilities. Although only one-third of the Bulgarian population lives in rural areas, more than

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25. *Ibid.*, page 19.

26. Sofia (Christo Botev neighbourhood), Doganovo, Sliven (2 urban communities), Gorno Alexandrovo, Topolchane, Sotirya, and Kardzhali. Tomova, 2000.

27. Tomova. 1998 and 2000.

50% of families with incomes below the poverty line live there. Rural poverty and ethnic divisions therefore place children at serious disadvantage, not only in terms of poor education but poor housing, health, and nutritional status, all of which have educational consequences.

## Roma

With regard to Roma, a policy of forced settlement of nomadic and semi-nomadic Roma in the 1950s was accompanied by attempts of the Communist Party to increase Roma education. A number of new schools were built in Roma settlements.

At first, the impact of these efforts was considered positive, but by the mid-1960s the schools had fallen into disrepair. A number of them adopted a low-level vocational focus, replacing other subjects like Bulgarian language, mathematics etc., with the perspective that these students would not continue in education. The legacy of these schools still exists; in 1991 the MoES registered 31 such vocational schools plus another 77 schools which under the previous Communist government were labelled 'for children with a lower lifestyle and culture'. Although in 1992 the curricula for these schools were replaced by the regular Bulgarian curriculum, it is generally agreed that 'the educational environment remained unchanged, and determines the lower quality of education in these schools today'.<sup>28</sup> 'Gypsy children are still not allowed to enrol in half-empty Bulgarian schools and are being sent to overcrowded Gypsy schools, even if a Bulgarian and a Gypsy school are next to each other. When demographic factors ... require the transfer of students from a Gypsy to a Bulgarian school, (there are) protests by Bulgarian parents or Gypsy children are segregated in different classes'.<sup>29</sup> In addition, the separate schooling of Roma in separate Roma neighbourhoods continues to serve as an invisible wall between Roma and their ethnic Bulgarian neighbours, and in practice few Roma leave their areas more than a few times per year. Therefore, although educational provision *may* be available to most of the Roma community in terms of quantity, it is seriously lacking in quality and remains an important factor in the marginalisation of Roma communities.

The role of NGOs in the improvement of education for ethnic minorities is in itself becoming problematic. On the one hand, the considerable external (material and human) resources flowing into the system make it possible for the MoES to 'contract out' of this sector and postpone or avoid strategic policy decision-making for the longer term. On the other hand, some minority organisations, especially Roma, resent the paternalistic attitude of some NGOs; they perceive the NGO sector as 'a parasite feeding on (Roma) problems without trying to solve them'.<sup>30</sup> These conflicts were obvious during the discussions of the *Framework Programme for Equal Integration*: on the Roma side, the main objective was full desegregation and integration, whereas some of the NGOs base their work on special projects aimed at Roma, which maintains and sometimes aggravates their segregation from the surrounding community. In the absence of clear policy and management leadership from the MoES, such conflicts are bound to flourish.

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28. Save the Children, UK. 'Denied a Future? The Right to Education of Roma, Gypsy, Traveller Children in Europe'. Draft, March 2000, page 61. Quoted in Jennifer Tanaka, page 5.

29. Olena Marushiakova and Vesselin Popov, 'Study of the Education Situation of Ethnic Minorities in Bulgaria', *op.cit.*, 1999, p. 8. The MoES disputes this, but the team's observations bear out the Marushiakova study. See also Ina Zoon, *On the Margins: Roma and Public Services in Romania, Bulgaria and Macedonia*, 2001.

30. *Ibid.*, p. 23.

*Equity in the VET system*

As was shown in Table 1, 67% of students in the age group 15-19 continue their post-compulsory education, 38% in vocational or technical schooling and 29% in *gymnasia* or specialised academic schooling. These relatively low participation rates are further affected by drop-out (about 3 to 4% per year) and will, in future, show the effects of demographic factors such as the negative birth rate and emigration. The National Statistical Institute calculates that between 1999 and 2010, the age group 15-25 will decrease by 273 000 (from 14.5% of the population to 12%). Gender balance: VET schools have more male than female students, e.g. 115 682 males and 68 800 females 14-19 years of age in 1999/2000.<sup>31</sup>

The overall pupil:teacher ratio in VET is 11:1 and likely to decrease. The school system is therefore faced with a quantitative *over*-supply problem, rather than with a problem of access.

Generally, access and equity are not a severe problem given the wide network of schools; rather, there are 'too many schools that do not provide appropriate skills and have financial problems'.<sup>32</sup> The geographical distribution of vocational schools in Bulgaria meets regional (rather than national) needs; more than half the vocational schools are situated in the biggest towns in each district.

Issues of quality are not as easy to assess. Because of its need for adequate workshop and laboratory space and equipment, VET is particularly vulnerable to the effects of chronic under-investment and under-resourcing. Moreover, as in other socialist countries, many VET schools had close links with enterprises that now no longer exist or can no longer afford to support these schools, receive and train apprentices, or employ graduates. Unemployment among 15-24 year olds in Bulgaria is 39.2% (March 2000). Unemployment rates by educational attainment are, predictably, highest among those who have only 4- or 8-year compulsory schooling (31.7%); but the next highest rate is among those with secondary vocational education (17.5%), followed by those with general secondary (16.4%). Long-term unemployment (more than 1 year) among 15-24 year olds is nearly 20%. These figures indicate not only the difficult state of the Bulgarian economy, but also a mis-match between students' preparation and the needs of the labour market.

Finally, between the mid-1960s and 1992 basic vocational schooling was associated with 'gypsy schools' which were generally of low educational quality and certainly of low social status. This perception still remains, although as part of the general 'optimisation' policy of the MoES efforts are being made to end such *de facto* segregation on the basis of ethnic origin, for example through mergers of neighbouring schools and closure of non-viable units. Nevertheless, provision for Roma in VET remains an issue.

*Equity and Special Needs*

As elsewhere in the region, provision for children with special educational needs (SEN) still shows the powerful influence of the Soviet science of 'defectology', whose main legacy is in the use of a medical model of special needs, the use of medical language in their assessment, and the tendency to diagnose and categorise SEN at a very early age, labelling children and often segregating them in separate schools with differently-trained (often medical rather than educational) staff. Since 1989, there has been greater openness and a more humane view of SEN, but at the same time the growing emphasis on academic competition and selection works against a policy of inclusion across the ability range.

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31. MoES figures, received March 2001.

32. Interview, Oct. 2000.

Moreover, the definition of SEN is still quite narrow; the Law mentions only ‘chronic diseases’ but leaves ‘special educational needs’ unspecified. Medical conditions appear to be covered by the Law, but not the more widespread, often mild but educationally disastrous conditions such as dyslexia, behavioural and attention-deficit problems, and mild learning disabilities that often go un-diagnosed and un-supported in regular classrooms where teachers are not prepared to cope with them.

The Public Education Act (Art. 27(2)) lays the basis for a policy of inclusion by stating that ‘schools shall provide conditions affording children suffering from chronic diseases and with special educational needs the opportunity to be transferred to (any category of regular school recognised by the Act)’. However, the next article (Art. 28) states that ‘special schools for children suffering from chronic diseases and with special educational needs *shall be boarding schools*’, and that children will be placed there according to ‘a procedure set by the MoES together with the competent state authorities and municipal councils’. The two Articles show the ambivalence in Bulgaria’s SEN law and policy.

The number of children in special basic schools fell by 20% between 1989 and 1996 (from 13 000 to 10 000), but this reflects the declining birth rate and the general drop in enrolments rather than greater integration of SEN children, whose percentage of the total school population changed little over that period (1.2%). As of mid-1997, all children diagnosed as having SEN were being educated in separate schools<sup>33</sup> and this still appears to be the case. Because such schools are often far away from the child’s home, many SEN children are separated from their families at an early age. Also, ethnic minority children are sometimes channelled into ‘special schools’ for the mentally or physically handicapped or into remedial classes segregated from ordinary classes, for example because of language difficulties or late entry. No specific figures were found for Bulgaria, but in other countries in the region Roma children are up to 15 times more likely to be in ‘special schools’ than their non-Roma contemporaries.<sup>34</sup>

Resource and access problems are formidable, even in relatively well provided schools such as the Varna School for the Blind. It is one of only two such schools in Bulgaria, and has 135 blind and visually impaired children between the ages of 6 and 18, mostly from the eastern part of the country. The school has a maximum capacity of 180 but has difficulty in filling the 45 empty places: ‘Health authorities do not communicate with the school; local doctors are not obliged to inform the authorities of children with SEN as in the old days; the Law does not function; and municipal authorities do not care’.<sup>35</sup>

This school caters for children of normal intelligence (who follow the national curriculum) as well as mildly and seriously learning impaired children and about 25 with multiple handicaps. However, the boarding part of the school cannot accommodate wheelchairs, and therefore only 3 or 4 children from Varna itself can attend on a day-school basis, with transport via a special bus. On the other hand, the school has been successful in placing as many as 100 of its normal-intelligence students in local schools for at least some of their lessons. According to the principal, obstacles to integration are raised by the children’s families as well as by local schools: ‘Class sizes in regular schools are often too large, and SEN children feel isolated there – some mainstreaming programmes exist but they have not reached Varna’.

Clearly many SEN children are slipping through the net, and better communication among authorities as well as new regulations are urgently needed.

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33. Education for All? UNICEF/ICDC MONEE Regional Monitoring Report No. 5, 1998, pp. 53-54.

34. European Roma Rights Centre, Country Reports Series, 1999.

35. Interview, 28.10.2000.

*Equity in Early Childhood Development and Care*

Pre-primary enrolment has not been badly affected by the transition. Even though only about 62% of children 2-8 were in pre-school education in 1999, this is essentially the same percentage as in 1989 when it was 63.9%.<sup>36</sup> However, much lower attendance rates prevail among some ethnic minorities, e.g. Roma where in 1995 only 12% of children were enrolled compared with a national average of about 65%.<sup>37</sup>

Parents are required to pay a fee, set by each municipality on the basis of the Law on Local Taxes and Fees. On average the daily fee is EUR 0.51, and the monthly fee EUR 10.53 (minimum income is EUR 38.35/month). While in general these fees cover only a small part of the actual cost – the state or municipality pays the rest – and are based on a percentage of the minimum wage, they could clearly be prohibitive for unemployed parents or families with several children. In reality, this means ethnic minorities, where unemployment is high and family size larger than among the Bulgarian population. For example, social assistance in the town of Lom – which has a sizeable Roma population – is about EUR 15.34/month plus EUR 5.11 per child. The kindergarten ‘tax’ is EUR 6.65 per child.<sup>38</sup>

Children in poor families are also most at risk of nutritional or other health problems, where early detection and intervention are often vital.

As mentioned above, the Law (Art. 27) stipulates that ‘special kindergartens’ shall be established for children suffering from chronic diseases or with special educational needs. In practice, this means only obvious *medical* conditions (blind or deaf children, children with physical handicaps) are catered for, and such ‘special kindergartens’ do not always exist near the child’s home, so that children either stay at home or are boarded away from their families. Secondly, segregating very young SEN children in ‘special kindergartens’ often means they then remain permanently in the segregated special-education system, with ever-decreasing chances of being re-integrated into regular schools.

***Issues and Barriers in equity in access, attainment and achievement***

- *Lack of accurate data.* There is no national, municipal or school-level student register that would permit monitoring of enrolment, attendance and drop-out patterns, especially during compulsory education (grades 1-8).
- *Inadequate definition and measurement of ‘drop-out’.* Measurement now is based on school attendance figures, and when a student has more than an administratively defined number of unexcused absences (recently reduced from 100 to 60 per school year) he or she is declared to have dropped out. However, this does not take account of (1) children who were never enrolled in school in the first place, and (2) students who attend irregularly. The ‘hidden’ drop-out problem – it is estimated that one-third of students in Bulgaria have more than 100 absences per school year – is also not reflected.

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36. Education for All? *op.cit.*, and ‘School Finance in Bulgaria in an Era of Educational Reform’, Douglas L. Adkins for the World Bank, 1999. Bulgaria is one of the few post-socialist countries that managed to maintain enrolment levels in pre-school after 1989.

37. *Education for All? op. cit.*, p. 57.

38. Jennifer Tanaka, ‘Roma in the Educational System of Bulgaria’, page 7.

- *Emphasis on ‘punishment’* of non-attendance rather than on prevention and motivation to stay in or return to school.
- *Lack of a national strategy* for improving access and school success for minorities, including a strategy for bilingual education for pre-school and grade-1 children to facilitate their adjustment to the use of Bulgarian as a language of instruction. Rom-speaking children are particularly disadvantaged in this way.
- *Lack of teaching and learning materials* to support the introduction of new curricula and teaching methods.
- *Lack of strategy and clear policy regarding the role of NGOs in education renewal.* Short-term or pilot projects, however useful or successful, come to nothing if they fail to become part of the MoES’s sustained educational policies and budget.
- *Need for improving the employability of youngsters completing vocational and general secondary education.* Given the high unemployment rates among 15-24 year olds, secondary school curricula are not well aligned with the needs of the labour market, despite the quantitative over-supply of schools and teachers, especially in VET.
- *Unclear and mainly ‘medical’ definition of special educational needs, and inconsistent policies with regard to identifying, categorising, mainstreaming and segregating children with special needs.* At the moment, there is a contradiction between the Law’s intention to include SEN children in regular schooling wherever possible (Art. 27) and the requirement that all special schools ‘shall be’ boarding schools (Art. 28), which removes SEN children from the community.

### **Curriculum: intended, delivered and achieved**

The Public Education Law assigns to the central government (through the Ministry of Education and Science) the duty to specify curriculum subjects and numbers of hours per week; approve textbooks, and set the requirements for examinations. There are regional inspectorates that supervise curricula and provide support to teachers in their implementation.

#### ***The intended curriculum: standards, objectives and design***

In all education systems, there are opposing pressures for national standards and a required core curriculum on the one hand, and localised, tailored, and adaptive curricula on the other. These are not easily reconciled: centralisation emphasises simplicity, standardisation and social efficiency; localisation emphasises complexity, adaptability, and individual needs. The Bulgarian curriculum, on balance, is more central than local in its development and character.

Bulgaria’s formal (intended) curriculum is highly demanding in terms of volume and level of knowledge. While excellence and high expectations are to be celebrated and preserved, it must be said that the curriculum is overloaded, slanted towards high academic achievers, with too little attention to a practical element in learning and to preparing students for a fluid (rather than static) world of work. The team observed that common responses to overload are to add more time to the time-table, to debate adding an extra year to secondary education, or to add a new subject to the curriculum, rather than slim down existing subject curricula.

Until recently, curricula were developed by academic expert teams for each subject with relatively little co-ordination across subjects and little attention to overall educational goals. The working groups, at least in general education, were – and some still are – strongly influenced by university representatives, which may ensure the academic rigour of the content but may not be the best way to arrive at a well balanced curriculum suitable for the whole ability range and for Bulgaria's changed economic and social conditions.

The process of developing curriculum standards for general education started in 1993, and for some subjects even earlier. That work was not well co-ordinated, and very limited guidance was given by the MoES; several proposed variants were lost in political changes between 1993 and 1997, but after the 1997 crisis the work took on a new urgency. From 1998, the MoES developed more coherent State Educational Standards ('Requirements') setting target standards for all students, and Programmes of Study specifying the contents and topics to be studied for each subject and grade level. To complete this structure, a National Assessment Framework – based on standards and curricula – was then developed, setting out key features of assessment and recording/reporting of results, key features of assessment for vocational studies,<sup>39</sup> and key features of a new Matura examination (see below) based on national standards but also capable of serving a selection function for higher education.

#### *Current status of curriculum design and implementation in Bulgaria*

This new standards-based approach to curriculum and assessment has brought about a major change. A new Law on Standards<sup>40</sup> sets out levels of schooling, requirements for moving from one level to another, the nature and content of a 'general educational minimum' for Bulgarian students, and a curricular structure of compulsory, elective and optional subjects.

The MoES leadership aims to create: (a) a framework, rather than a set of detailed requirements; (b) a minimum of 'prescription', only what is needed to ensure equal quality of provision and opportunities for all children; (c) a curriculum that is less 'heavy' on knowledge but with emphasis on basic skills such as quantitative reasoning, literacy, communication, critical thinking, problem solving and self-learning; (d) a clear and consistent basis for assessing student outcomes; (e) alignment – insofar as possible and appropriate for Bulgaria – with European trends and conventions, to enhance mobility and recognition of Bulgarian qualifications.

Curriculum changes have been introduced in schools since September 1999, as the first stage of implementation of the Law on Standards. They include changes in the learning plan (time-table, subject balance). In September 1999 work began on the development of standards; a framework was accepted in May 2000, and work started immediately on detailed 'Programmes of Study' for each subject and grade. The first – for grades 9 and 10 – were approved and in the schools by September 2000, to be followed by those for grades 1 and 5. The design of the curriculum for upper secondary (grades 9-12) allows for a balance between compulsory and school-developed curricula, the latter in line with each school's 'profile'. Programmes of Study contain detailed content to be covered, domains to be addressed, and expected learning outcomes for each year.

Under a World Bank-financed project, revised standards-based curricula set out in such 'Programmes of Study' and new teaching approaches ('Guidance for Teachers') will be introduced, over

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39. In vocational education, the work was helped by the EC-Phare Project. There was involvement of employers, and care was taken to align Bulgarian requirements with EU occupational standards.

40. Law on the Level of Schooling, the General Educational Minimum, and the Syllabus, adopted July 14 1999.

four years, beginning with grades 1, 5 and 10 in school year 2001/2002 and grades 2, 6 and 11 in 2002/2003. Learning plans by grade and subject already exist or are being constructed; for grades 11 and 12 with MoES resources (2001) and for grades 2-4 and 6-8 under the loan, also during 2001.

Table 4. **Structure of the new curriculum**

Content	Expected results (or learning objectives)	The main concepts	Context (suggested methods or teaching strategies)	Links with other subjects
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#### *The Core Curriculum*

By law, the core curriculum covers the 'general educational minimum' and is compulsory for all schools. It covers Bulgarian grammar and literature; foreign languages; mathematics, computing and information technology; social sciences and civil education; natural sciences and ecology; arts; culture and technology; physical education and sports.

Table 5. **Distribution of instruction time for compulsory subjects**  
(percent)

Subject:	Grades I-IV	Grades V-VIII	Grades IX-XII	Total
Bulgarian language and literature	32.93	18.69	17.25	22.96
Foreign languages (I and II)	9.41	14.95	12.87	12.41
Mathematics and information technologies	15.30	14.95	16.09	15.45
Social studies	4.70	11.21	23.68	11.63
Science	4.74	14.02	14.48	11.08
Arts	17.63	13.08	3.22	11.31
Crafts and technology	4.70	4.67	-	4.69
Physical education	10.59	8.41	12.42	10.47
Total	100	100	100	100

Source: MoES, 2000.

The Law on Standards encourages cross-curricular connections between subjects, and allows schools to offer choices according to their educational profile; however, the apportionment of hours on the timetable must not be less than what is stipulated by the MoES for the 'general educational minimum' by grade, stage level and subject. Curiously, 'minimum' is defined in the Law as 'compulsory knowledge and skills needed for the successful performance of schoolchildren in the *next* level of schooling' – the emphasis is therefore on acquiring what is needed for *future* performance, rather than on achievement of minimum standards in the *present* level of education'.

#### *Quality of the curriculum*

Despite continuing problems of overload, narrow focus on separate subjects, and over-emphasis on factual knowledge, curriculum renewal appears well underway in Bulgaria. The new, explicit links among standards, curriculum, teaching approaches and materials, and school inspection are encouraging

but need to be reinforced so that schools receive clear and coherent messages about, and resources for, school-level reform.

The quality of the curriculum is overseen by a newly created Curriculum Council (CC), legally in place since May 2000 but not yet fully functioning at the time of the team's visit in November 2000. The role of the CC is to serve as the main national advisory body for curriculum, reporting to the Minister. It has 12 members, including 6 from the Ministry (including two Deputy Ministers) and 6 external members including teachers and employers.

The CC oversees the development and implementation of standards and curriculum; its assessment in terms of learning outcomes; its implementation in schools, through a newly defined role for the inspectorate; and its delivery by teachers, through a series of in-service teacher training seminars. A first 'wave' of training of approximately 9 000 school principals, deputy principals and local authorities is planned for summer 2001; teacher in-service will follow from 2002, with a first group of 27 000 teachers. Further groups are to be trained in successive 'waves' over the next 7 years until curriculum renewal is complete.

The debate about standards has served as a catalyst for formulating goals, objectives and desired outcomes of education rather than on resources and processes. Nevertheless, 'standards' should refer to the *overall* quality of children's educational experiences, and not merely – as may happen – on students' test performance in core subjects. The CC in Bulgaria, by combining curriculum, assessment, inspectorate and teacher training within its remit, seems to take this wider view.

### *The delivered curriculum: teaching, textbooks and inspection*

#### Teaching

Historically, pedagogy is the ultimate prize for any government wishing to secure control over the educational process – insofar as 'the stubbornness of the human spirit and the wayward chemistry of the classroom' will allow.<sup>41</sup> On the whole this stubbornness and 'wayward chemistry' are healthy barriers against the wilder winds of educational change, but they also slow down the progress of reform.

Teachers anywhere use, consciously or not, the strategies that best convey certain *cultural* messages about what learning is. Classroom observations in Bulgaria show nearly all teachers using traditional, teacher-led methods. In the worst cases, this produces a culture of passivity in learners. Yet in the best cases, whole-class teaching can be alive and successful in developing the kind of skills still most valued in Bulgarian educational culture: a firm grasp of facts, quick, fluent and articulate oral responses, confident blackboard performance in front of class-mates, and, above all, discipline. OECD observers rightly question whether this fosters the creativity, independence and problem solving skills that are prized in OECD cultures and are increasingly needed in Bulgaria's changed conditions; possibly not. But the point here is that teaching and learning styles are not culture-free, and classroom-level reforms must avoid the trap of introducing fashionable orthodoxy rather than thoughtful reforms that build on local values.

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41. Robin Alexander, *Culture and Pedagogy*, Blackwell, 2000, p. 142.

## Textbooks

Textbooks are a key tool for introducing and reinforcing national core curricula and unified national standards and assessment. In Bulgaria, they are an important part of curriculum renewal policy. Textbooks in Bulgaria are, from 1998, available on the open market, with the exception of books for grade 1, which continue to be paid for by the MoES.<sup>42</sup> Before 1998, all books for grades 1-8 were paid for by the MoES, but this became too expensive, especially since in practice few books 'survived' for their intended three-year life-span.

The Law on Public Education requires state standards for textbook provision; these are being drafted by a working group, along with revised procedures for textbook evaluation and approval. The process is complex and takes a long time – 18 months or more from the time the MoES announces content standards for a new textbook to the time it appears on a student's desk. Briefly, the sequence is as follows: the Minister approves a list of books that will be needed. Content standards along with curricula and timetables are published in the Ministry *Gazette*; publishers and authors must use these State requirements in the preparation of manuscripts. Publishers submit manuscripts to a preliminary Approval Committee by a specified deadline. Competitive bidding is anonymous; bids are opened first by a technical committee to check that they meet technical requirements such as curriculum coverage, illustrations, quality of paper and binding, price, and other characteristics, and the publisher's statement of solvency. The Minister then appoints a *second* Expert Commission (4-6 members) for every subject and grade; this Commission judges the manuscript on content, methodology etc. The Commission signs a protocol giving a final rating, and 'winners' (up to three per subject per grade) are announced. A pilot printing is sent to every inspectorate; each inspectorate either organises a travelling exhibition or arranges meetings of teachers with authors. Teachers have a chance to see the books and make their choice, and schools order them from the distributors (not the Ministry) for sale to students. Books are also available from bookshops.

The team heard that competition among publishers is helping to improve the quality of textbooks. Parents in general are willing to make sacrifices in order to buy good-quality books, and since they are expensive, they tend to be looked after more carefully. Books can cost 50 leva (USD 24) per year for a student in grade 6; however there is an active second-hand market in textbooks, and some schools have used books available. (There is no formal provision for schools to buy books for needy children.)

## Inspection.

In addition to a national inspectorate at the MoES, Bulgaria has 28 regional inspectorates, with a total of about 700 inspectors carrying out some 20 000 school inspections per year. Inspectorates function as local branches of the MoES. They oversee the implementation of state educational requirements and norms in all types of schools in their territory, including private schools, kindergartens and servicing units. Each inspectorate is a legal entity, and consists of a chief inspector, about 12 subject specialists, as well as general inspectors for finance, organisation and management. Not all inspectorates have a complete coverage of all subjects. There are no inspectors attached to municipalities, but there are municipal administrative officers with responsibility for schools. There appears to be little direct contact between regional inspectorates and these administrative officers in the municipalities.

School inspections are summarised in reports made available to the school itself as well as to the MoES. Inspectors play a key role in the appointment of school directors of municipal schools (since 1999).

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42. Books are also free for children in institutions, irrespective of grade level.

They also review and approve school-developed curricula, school staffing structures, and financial management of schools to ensure compliance with state regulations.

Inspectors have the right of entry to schools to carry out their duties. However, they must be able to demonstrate their credibility to the schools, and gain the confidence and co-operation of teachers through their qualifications and experience, the quality of their evidence, and through their professionalism. The team became aware, however, that inspectors lack authority and credibility in schools, because they are paid *less* than teachers and are seen as ‘mere administrators’ or ‘failed teachers’ by those they are expected to inspect and assist. Understandably, low salaries do not attract professionals of high calibre, and morale among inspectors tends to be low.

In recent years, efforts have been made to change the role of the inspectorate from one of ‘control’ to one of professional support, in particular with regard to in-service training of teachers related to curriculum and standards reforms, and a new ‘Framework for Inspection’ has been developed. However, until inspectors are given the salary and professional status they need to gain the respect and trust of school staff, they cannot be effective in an advisory or training capacity in schools.

#### *The achieved curriculum: learning outcomes, assessment and examinations*

##### Certification and Examinations

The Law on Standards<sup>43</sup> specifies the ‘general educational minimum’ for all students; it comprises ‘compulsory knowledge and skills needed for successful performance...in the next level of schooling’. The MoES is responsible for detailed regulations, but the structure of the syllabus is set by law: it has compulsory, elective and optional components. Students receive a certificate upon completion of basic (grades 1-4) and primary (grades 5-8) education, and are required to pass a compulsory state matriculation examination (Matura) at the end of grade 12. The law specifies the number (3) and the subjects (Bulgarian language, civics, and one further subject chosen by the candidate) of the Matura examination. At present, the Matura examination is set externally (by the MoES), but is administered by schools, and exam papers are marked by the students’ own teachers.

The Ministry does not use explicit indicators to assess the outcomes of the education system, although the newly developed standards will provide a basis for doing so in future. Until now, the results of the (old-style) Matura have been used as a rough indication of learning achieved, even though only half the grade 12 population takes part (see below). However, since these exams are still locally administered and marked, the results are not reliable across schools and over time, and records of results are kept at the school level rather than nationally so that trends are not easily assessed. The examination at the end of grade 7 (used to select students into profiled (specialised) secondary school, see below) is also used to judge learning outcomes, although only about 30% of 7<sup>th</sup> graders take part in this exam.

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43. Law on the Level of Schooling, the General Educational Minimum and the Syllabus, July 1999.

**Table 6. Total number of students from general and vocational secondary schools who took the 'Matura' examination 1999/2000**  
(three sessions – January, July, September)

No	Subject	Exempt from taking the Matura examination	Total No. taking the examination	Total No. of successful candidates	Total No. of unsuccessful candidates
1	Bulgarian Language And Literature	31 210	38 165	31 273	6 892
2	1st Foreign Language	9 033	3 046	2 846	200
3	2nd Foreign Language	885	252	237	15
4	Maths	9 648	17 676	15 121	2 555
5	Informatics	946	42	35	7
6	History	3 404	1 262	1 065	197
7	Geography	2 296	1 197	1 040	157
8	Philosophy	1 037	226	202	24
9	Chemistry	966	183	173	10
10	Physics	379	44	39	5
11	Biology	3 446	1 159	1 015	144
12	Music	644	80	77	3
13	Fine Arts	591	155	154	1
	<b>TOTAL</b>	<b>74 485</b>	<b>63 487</b>	<b>53 277</b>	<b>10 210</b>

Source: Ministry of Education, Sofia, January 2001.

Table 6 shows that there were more 'exempt' students than candidates taking Matura. Under the present system, exemptions are awarded to students with an overall grade of 5 or above on a grading scale of 1-6 (6 = highest). In some subjects (e.g., foreign languages) nearly three out of four students were exempt from taking the exam. Three conclusions can be drawn: (1) school marks still dominate, because teachers decide who is and is not exempt; (2) the Matura is taken by fewer than half of the students, and is thus not a truly national basis for ensuring that standards are met; and (3) those who take the examinations are inevitably the *weaker* (non-exempt) students, and therefore results will not give a true picture of overall student achievement. Nevertheless, 83.9% of those sitting the examination were successful; 16.1% were unsuccessful. In some subjects – e.g., fine arts, nearly *all* candidates passed.<sup>44</sup>

## Reforms

The new Matura will not permit exemptions: the Law on Standards requires that every student must sit at least three subject examinations. A nine-year plan for reform of Bulgaria's examination and assessment system is underway. As a first step, content, timetable and assessment standards for core subjects were designed, with foreign technical assistance. Standards now exist for all levels of pre-university education, including technical and vocational programmes. Secondly, as part of a World Bank-financed project, a semi-independent National Assessment Unit has been established which will provide professional and technical expertise and be responsible for the administration of national exams and assessments. The Unit is under the policy control of the Ministry, but has its own director, budget, and professional staff. An external Matura examination will be introduced from 2003; the following years will see the introduction of systematic national assessments at the end of grades 4 and 8, and during the final three years the National Assessment Unit is expected to become self-sufficient.

44. Exemption rate 3 out of 4; failure rate on the exam 0.645%: this means that 1 student out of a possible 900 fails the Fine Arts examination. This begs the question whether there is any point in 'examining' the subject?

The introduction of a new-style, external Matura examination based on national curriculum and assessment standards will provide a much clearer and more reliable picture of learner achievement at the end of secondary schooling. A dialogue has started with universities to determine how these more reliable results might be used in the process of selection for higher education entrance.

#### National and international assessments

In addition to formal examinations, periodic (sample-based) assessments are carried out, *e.g.* to assess to what extent students reach 'educational minima' in Bulgarian language and mathematics at the end of grades 4 and 8, and in 1999 a sample-based assessment was made among grade 7 students as part of a two-year Ministry programme to change the entrance examination for 'profile' (specialised) schools. Able students also take part in 'Olympiads' in some subjects, at primary, general secondary, and vocational/technical secondary levels.

Bulgaria takes part in international comparative studies of student achievement, *e.g.* in the Third International Mathematics and Science Study (TIMSS) and the International Reading Literacy Study (PIRLS), and now in OECD/PISA+.<sup>45</sup> Bulgarian students tend to do well in international comparative studies of this kind. In the most recent repeat of TIMSS, for example, Bulgarian 8<sup>th</sup> graders (average age 14.8 years) ranked 17<sup>th</sup> in Mathematics, and also 17<sup>th</sup> in Science, among 39 participating countries.

However, in TIMSS-1995, Bulgarian 8<sup>th</sup> graders ranked 11<sup>th</sup> in mathematics and 5<sup>th</sup> in science among 41 countries. Recent analyses<sup>46</sup> show that the 1999 cohort scored 16 points *less* in mathematics, and 27 points *less* in science, than their predecessors did in 1995.

In mathematics, Bulgarian 8<sup>th</sup> graders scored significantly<sup>47</sup> above the international average (with 505 points out of a scale of 800 points, with an average of 487 points from 38 participating countries) which was 487 points in mathematics. Bulgaria's mathematics results compared to 13 other countries including Belgium (Flemish), Slovak Republic, Hungary, Russian Federation, Czech Republic, the United States of America and England. In the 1999 study there was a drop of 16 points, which was one of the largest differences between the 1995 and 1999 scores of the 26 countries that participated in both studies.

In science, in 1995, Bulgarian 8<sup>th</sup> graders achieved scores for science significantly above (518 points) the international average (488 points). Only five countries achieved scores higher than Bulgaria: Chinese Taipei, Singapore, Hungary, Japan and Republic of Korea. Although there was no statistically significant difference between the scores of boys and girls in Bulgaria, there was a larger difference in score points in science than there was in mathematics. Bulgaria performed well in traditional subjects like chemistry where the students did particularly well (achieving the 6<sup>th</sup> highest score), life science and earth science, all of which were significantly above the international average for these content areas. They did not perform as well in physics where they achieved a score comparable to the international average. However, in the areas of environmental and resource issues, and scientific inquiry and the nature of science they achieved scores below the international average although not significantly below.

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45. The international overheads of joining PISA (Programme for International Student Assessment) have been covered by a grant from Finland within the framework of the Task Force for Education of the Pact for Peace and Stability in South Eastern Europe.

46. Sarah Howie, *Mathematics and Science Performance in Grade 8, TIMSS-R. Executive Summary*. Human Sciences Research Council, Pretoria, January 2001, pp.47-50.

47. Statistically significant

What is of concern is the significant drop in the results of 1999 compared to 1995 for science. Bulgarian scores decreased by 27 points, and was the only country out of 26 countries where this happened. Bulgaria's TIMSS-R scores represent the largest drop in science, and the second-largest drop in mathematics, among all countries participating in both studies: a worrying trend that will need to be analysed carefully.

Role of inspectors and local authorities.

Alongside the development of national, standards-based, and externally set and marked examinations at key points in students' education, there is a role for inspectors and local authorities in monitoring learning achievement. The new framework for inspection foresees a strong supporting role for inspectors in improving the quality of teaching and learning in schools. Moreover, local authorities are expected to carry out assessments concerning topics specific to their region or locality, as well comparing local performance with national results and using this information for local policy-making and resource allocation.

### ***Issues and Barriers in curriculum, standards, quality and assessment***

- *Unresolved problems* of overloading, over-emphasis on factual knowledge, lack of integration and cross-curricular work, and limited school-based curriculum development.
- *High academic expectations* – often through university representatives on subject working groups; a tendency therefore to 'select the best' rather than ensure that students of all abilities will develop the skills they need to cope with Bulgaria's economic and social realities.
- *A legal definition of 'general educational minimum'* that appears to be more concerned with preparing students for the *next level of schooling*, rather than ensuring that all reach an acceptable level with regard to national standards and the demands of the labour market.
- *Complex reforms in standards, curriculum, textbooks and assessment* that place considerable strain on teachers, especially if reform messages arrive from varying sources, out of sequence, and without in-service training for teachers.
- *'Quality of education'* is more important than students' performance in tests, Olympiads, or international comparison studies. All students, including low achievers and special needs children, are entitled to high quality educational experiences that allow them to develop to their full potential.
- *While alignment with international trends and innovations* is desirable for Bulgaria as it finds its place in Europe, teaching and learning styles must remain grounded in Bulgaria's own cultural values.
- *Lengthy, complex, and opaque procedures* for the approval and production of textbooks are barriers to the introduction of curriculum reform in classrooms.
- *Lack of provision for schools* to buy textbooks for needy children.
- *Low status and salaries of school inspectors* and lack of credibility and authority *vis-à-vis* the teachers they are expected to advise and supervise.

- *As new Matura exams become compulsory for all secondary school leavers without exemptions, the target level of the examination, will need to be adjusted to cover the whole ability range.*
- *Universities will remain reluctant to abandon university entrance examinations until the new Matura is firmly established as a reliable tool for selection.*
- *The steep decline in Bulgaria's performance in international mathematics and science studies may signal underlying problems in teaching and learning higher-level thinking skills in these subjects.*

## **Education Personnel**

### ***Teachers***

Teachers as key mediators and formative agents of the young generation have a central role to play in the transformation of Bulgarian society. Art.15 of the *Public Education Act* and Articles 8 and 9 of the *Law on the Level of Schooling, the General Educational Minimum and the Syllabus* set out the principles and aims that underpin the education system: teachers are expected to promote the knowledge, attitudes and skills which will enable youngsters to live productively within their changed society. The former regime laid great stress on subject-mastery, ideological orthodoxy, implementation of centrally prescribed material, and patterned methodological processes for teacher performance. Now the emphasis is on teacher adaptability and innovation regarding curricula and pedagogy. New subject content is being introduced, and a more integrative teaching style is sought which encourages learners to question, surmise and take risks. Teachers are expected to work together, and be open to more productive relationships with parents and the local communities.

These changes pose great challenges to the capacity and motivation of teachers; to meet them, teachers need enlightened support and respect from the government and general public. However, the review team formed the opinion that policy on teachers was not a high public priority. A host of circumstances affecting their status and conditions of work are unsatisfactory, and there is a lack of a coherent policy or strategy which would help to re-structure the profession and support it in achieving the goals sought. There is no panacea or “quick fix” to redress the difficulties, but the foundations need to be laid now, so that, over time, a sensible sequence of policy measures will create a more satisfactory professional framework for teachers.

### *Teacher career structure and salaries*

At present, the teaching career is structured on a five-grade promotional path (level 5 = lowest). The position of school director (principal) is likewise sub-divided into four grades. Despite this hierarchical framework, the differential in salary is very little, amounting to only 29 leva at the maximum of the scales for a grade 5 and a grade 1 teacher. The differential at the maximum of the scale between the director at grade 1 and grade 4 is also very small, at 31 leva (roughly USD 15).<sup>48</sup>

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48. Salary figures supplied by the Ministry of Education and Science (MoES).

Such small differentials are also symptomatic of the very low salaries available to Bulgarian teachers. The maximum for a grade 1 teacher after 25 years is 259 leva per month (about USD 130).<sup>49</sup> Teachers cannot always be sure that even such a salary will arrive on time. The review team learned that some teachers experienced serious delays in salary payments in the last year, although the Ministry of Finance informed the team that this position was being rectified and salaries would be paid on time in the future. The very low salaries make it necessary for many teachers to supplement their income through other work, which can have the effect of reducing their time for non-classroom teaching activities such as class preparation, correction of homework, availability for school planning meetings and in-service education.

A certain social status still attaches to teachers' occupation, but there is a grave danger of major erosion of its status. Apart from salary issues, teachers need to feel that their work is valued and respected and that their voice is heard in the policy arena if their morale is to be sustained. While new national policies imply high expectations of teachers, it was not at all clear to the review team that this was matched by appropriate public policies, attitudes and support.

To move towards a more satisfactory policy approach on the teaching career it would be necessary to establish a suitable data bank, readily accessible, on a range of elements such as age and gender profiles, turnover and exit patterns, ranges of subject competence, training experiences, promotion patterns, deployment patterns, redundancy and retirement trends, demographic patterns, school infrastructure, pupil/teacher ratios, patterns of work engagement. Such data should feed into a coherent strategic policy on teaching within the reconstructed education system. The policy needs to take a comprehensive approach, and not just focus on one or two features of an interlinked set of features, which tends to be the present approach. A policy for the future needs to deal with recruitment, initial and in-service education, salary issues, retention, conditions of service, mobility, career paths, secondments, redeployment, evaluation and consultation processes with the teaching body. Such an approach should provide a framework for the long-term development of the teaching career and give it the status and sense of purpose which it will need to be an attractive purposive and productive career, shaping a better society for Bulgaria in the future.

The following sections deal with pre-service and in-service education for primary and general secondary teachers. Teacher education for vocational teachers is dealt with in the section on vocational education.

#### *Pre-service Teacher Education (Preset)*

The MoES has very little direct influence on teacher education. The review team was unable to uncover Ministry documentation on pre-service teacher education and, from discussions held with Ministry personnel, formed the view that the Ministry was very much at a distance from preset programmes and process. A *laissez faire* view seemed to prevail, and the Ministry did not seem to consider that the issue was of much importance. This would also seem to be reflected in the fact that preset does not feature in the Education Modernisation Plan, in association with the World Bank.

Preset takes place in 10 institutions operating within a university framework. The typical model is a form of concurrent education, whereby students pursue their academic subjects – e.g. mathematics, history – in the relevant faculty of the university, and those who decide to become teachers, take additional courses in the Faculty of Education. There are four elements in the professional education course: General

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49. Since the OECD visit, it appears that teacher salaries are to be increased by 15%. This is a positive first step towards competitive salaries for teachers.

Education, Educational Psychology, Didactics/Methodology of particular subjects, and Teaching Practice. The course amounts to about 1 year in duration and runs parallel with the other subject studies. A good deal of the Pedagogy/Methodology is given by lecturers in the subject area in the university. Within the framework of the four-year course, about 60 hours are devoted to General Education, 60 to Psychology, and 120 to Didactics/Methodology. Students are expected to do about 120 hours' teaching practice in schools.

The model is close to the traditional one in some other former Soviet bloc countries. The emphasis is on the mastery of subject content, intended to be delivered in a predominantly expository teaching style. A major problem with this tradition is that even university teachers who may display an admirable interest in the pedagogic dimensions of their academic subjects are likely to be far removed from the new approaches to schooling, both in terms of practical experience and of conceptual understanding.

Many students now take teacher preparation courses as a fall-back position, but with little intention of making teaching their life career. This trend has two serious disadvantages. It tends to overcrowd university classes, cutting across the small-group and tutorial work which can be so important in pre-service education. It is also wasteful of staff effort and time when many do not enter, or do not stay in, teaching.

Although preset occurs at university level, the review team formed the impression that Education Studies do not enjoy high academic regard, support, or resource share within the institutions. There is also dissatisfaction about the time devoted to teaching practice, and about the quality of the guidance available to students. Supervision is given by "selected" teachers in the schools and by staff from the training institutions. Even when students are successful in teaching practice, due to the inadequate salaries and other unattractive aspects of the teaching career at present, many choose careers other than teaching; the loss of able young graduates deprives the profession of the "new blood" which is so vital at present.

A structural problem in pre-service teacher education institutions is their compartmentalisation. Their engagement with in-service education is only occasional and incidental, rather than an integrated one. Some courses are provided for the upgrading of teacher qualifications, but the involvement with serving teachers or with in-service institutes seems small. Some teacher education staff have been involved with curriculum changes being promoted by the MoES; however, from discussion with MoES officials and with teacher educators, the review team concluded that relationships are not always harmonious.

Clearly, the existing pre-service arrangements are in need of serious review. Without a satisfactory initial formation, it is pointless to expect the teaching force to be of high quality. The MoES needs to give more priority to this area.

#### In-service Teacher Education (Inset)

##### *Structural and capacity issues*

In-service education for teachers has been receiving more official attention than preset. Inset is included in the Education Modernisation Project of the Ministry, and an investment of about USD 3.5 million is being allocated. However, there is no annual budget line for inset. Teachers' pre-service and in-service education are part of the higher education system, and are regulated by the Higher Education Act (1995). Funding for in-service training is distributed through the universities. The MoES does not have any special funds for teachers' professional development, and thus has few mechanisms to influence its content and quality.

Teachers' professional development is not obligatory in Bulgaria. At the moment, it is provided mainly by the three in-service training institutes which are located in Sofia, Varna and Stara Zagora. The institutes are respectively associated with Sofia University "St. Kl. Ohridski", Shoumen University "K. Preslavski" and Trakian University – Stara Zagora, but they have juridical autonomy. The institutes are financed from the universities with which they are associated. Universities decide about the terms of financing, and the arrangements vary between the institutions. While there are advantages in being associated with the universities, there is also a sense of the institutes being marginalised and subordinate to the universities' activities. The nature of the work of the institutes is different, regarding *clientèle*, content and process, but they are often expected to comply with the rules of the university, which may not be appropriate. It was represented to the review team that if the institutes could have more autonomy their work could be organised in a much more efficient way.

Teachers attend institute courses for two main reasons: (a) to achieve attestation and accreditation to advance their careers, and (b) to upgrade their skills and keep abreast of new curricular developments. It was reported to the review team that the proportions were about 50:50 for each purpose. The achievement of the different grades of the teaching career are operated by a commission assigned by an order of the Director of an institute and headed by a professor or associated professor in the corresponding area.<sup>50</sup> The mission of teachers' professional development is "to prepare and support educators to help all students achieve at high standards of learning and development".<sup>51</sup> The experience of other countries, such as Lithuania, shows that when the system of teachers' professional development is associated with the system of their professional qualification and career, the in-service training provided tends to become "supply driven" and monopolised by the providers.

Professional development programmes are also provided by other organisations such as teachers' associations, trade unions, NGOs, training centres established by international programmes, such as Phare, Tempus, British Council, etc. University faculties are providing courses in certain areas, depending on teachers' personal needs and interests. These courses are voluntary; the obtained certificates are not recognised and cannot be used to promote teachers' careers. At the moment, there is no system of programme evaluation and accreditation for such courses.

The institutes provide free and paid courses. Programmes developed at the request of the MoES or approved by the MoES are free of charge. Paid courses are usually related to teachers' personal retraining. The institutes can raise money by renting offices; e.g. the institute in Varna is renting offices to a business school which is paying for the heating of the whole building. The institutes receive little money for equipment. Most of the equipment (computer laboratories, copying machines, etc.) is received through international projects (*Tempus*, *Frankophonia*, etc.), and the institutes have serious financial difficulties in maintaining and upgrading it.

Due to financial difficulties, the number of teachers taking in-service courses has dropped by almost 50%. The majority of the courses are free and the institutes are offering cheap accommodation, but teachers have to pay for their travel and meals. Teachers cannot easily get paid leave (or find substitutes) so that they can participate. Moreover, teachers are not motivated to attend courses because there is no system of incentives: salary differentials between 'levels' are very low, teachers have to pay themselves for expenses, and the quality of the courses is not always satisfactory. Very few teachers from the schools the review team visited had taken part in in-service courses in recent years.

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50. Gurova, V. & Nejkov, D. "Survey of Teacher/Trainer Training in Vocational Education." Brochure 6. Bulgarian National Observatory.

51. DuFour, R. and Eaker, R. Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement, National Education Service, 1998.

The rigid structures of the institutes, lack of flexibility, large numbers of regular staff, and their “monopolistic” status are all barriers to achieving higher efficiency of their services. Nevertheless, these institutes have accumulated a lot of experience and resources, they have professional staff, they have developed systems of communication with the local inspectorates and schools, and thus they should be more actively involved in the reform of education. There needs to be a more coherent national policy on inset, more co-ordination of effort, and better funding.

## Content

In-service training programmes of the institutes are planned in relation to priorities expressed by the Ministry, requests from the inspectorate, requests from schools and reaction from course participants in the previous year. Course proposals are vetted by the local education authorities through the inspectorate. Brochures are then prepared and distributed to schools. On receipt of candidates’ applications the programmes are finalised. It is usually necessary to have a minimum of 6-8 applicants to mount a course, and the preferred maximum is 25 participants. The institutes offer two types of courses (unpaid): courses in curricular subjects and courses in pedagogy, psychology and management. The descriptions of the programmes reflect the theoretical character of most of the courses. Programmes for foreign language teachers organised in co-operation with international organisations (*British Council, Francophonía, etc.*) differ by their practical approach.

## Process

The institutes do not have regular links with the schools. Earlier, the institutes used to co-operated with “model” schools on a regular basis, but now these relations have broken down and their co-operation is occasional. Recently, the institutes have tried to change the mode of course delivery, and interactive methods are being experimented with. Information technologies are making some courses more attractive: teachers can observe video lessons, use computers, but, generally, the lack of equipment and materials presents large problems for such initiatives.

Teachers’ in-service training is focussed more on the needs of individual teachers than on the school staff as a team. The concepts of school-based teachers’ professional development, as well as collaborative school development planning are not yet introduced into school practice. Nevertheless, the demand for them will be growing in relation with the curriculum reform and other educational aims.

## Role of regional inspectorate in in-service teacher training

One of the main responsibilities of the regional inspectorate is to support teachers’ professional growth. They analyse teachers’ needs of in-service training. Ideally, they could liaise among teachers’ professional associations, methodological units, labour market centres, NGOs, universities, in-service training centres and schools. In practice, local inspectorates do not have funding for in-service; their role is restricted to assisting in course organisation. It is still the case that all in-service courses (including those offered by NGOs, such as the Open Society Foundation) must be approved by inspectorates; teachers cannot gain credits for courses offered by NGOs, even if they have formal approval.

However, more recently some inspectorates (*e.g., Varna*) have made efforts to link in-service offerings directly to changes and reforms, and to support principals in developing project management skills.

## Reform efforts in teacher training

A significant initiative to implement reforms in in-service is the Education Modernisation Project, supported by a World Bank loan. The project aims to reform teacher in-service training by the establishment of a demand-driven system that meets the needs of the schools. A 'market' of independent training providers will offer high quality in-service programmes. The Ministry of Education and Science will create a regulatory structure for programme accreditation and licensing of these providers. Local inspectorates are to be the main in-service training providers in relation to the new curriculum.

The initiative is to be welcomed, but the review team would wish to see it emerging from a more in-depth examination of the issues involved and a more comprehensive policy on teacher education. It is not at all clear that the inspectorate, as at present positioned, will be able to provide the meaningful forms of in-service required. There is a danger that reliance will be placed on a model of top-down delivery courses for large numbers of teachers focussed mainly on dissemination of information on the content and skills required by the new curricula. If this becomes the predominant pattern, then experience elsewhere would indicate that it would be of limited use.

## Issues and Barriers in education personnel

- *Lack of incentives* – both in terms of salary differentials and career progression – for young teachers to enter the profession and continue their professional development. For example, teachers of children with special needs receive only EUR 3.07/month more than regular teachers, and each 'step' on the career ladder brings only an extra 5 leva/month so that the difference between a beginning teacher and the most senior teacher is only 20 leva/month (about USD 10). Teachers who become teacher trainers *lose* up to 15% of their salary – a clear dis-incentive.
- *Lack of strategic leadership* at the level of the MoES; there is an urgent need to review policies and institutional structures that determine how teachers are trained, supported, monitored, developed, and motivated at all levels.
- *Provision of in-service courses by NGOs* is often of high quality but according to MoES regulations NGOs cannot give qualification credits even if the course is inspectorate-approved.
- *Low status and salaries for inspectors*, which dangerously damage their credibility and authority in their all-important work in representing MoES in introducing reforms in schools.
- *Lack of attention to the in-service needs* of school directors and other administrators, in particular with regard to decentralisation, staff and financial management, and whole-school in-service development, for example for collaborative development of school-based curricula and cross-curricular work.

## Early Childhood Development and Education

Pre-school education for children aged 3-7 comes under the aegis of the MoES and the inspectorates; below the age of 3, children are the responsibility of the Ministry of Health. Some groups (*crèches*) exist for children between the ages of 1-3 that come under the joint responsibility of both Ministries. Most pre-schools for 3-7 year olds are connected with a specific primary school. There are about 104 private kindergartens in the country. Every pre-school is entitled to develop its own programme,

or follow a specific approach such as ‘Step-by-Step’ according to parents’ preferences, but all must comply with MoES requirements.

The Law (Art. 18-21) states that the cost per child in state or municipal kindergartens will be met from the state or municipal budget respectively. An amendment passed in 1998 requires parents to pay a fee set by each municipality’s council. Fee levels differ slightly by region; on average, it costs between 20-30 leva per child per month, based on a percentage of the minimum wage (20%). The fee includes meals and materials. Parents are also required by law to pay for any activities other than those stipulated by the state educational requirements. However, parents’ fees cover only one-sixth of the real cost, which is estimated at about 120 leva/month per child. The difference is paid by the state or by the responsible municipality.

Approximately 66.4% of the age 2-8 cohort was in pre-school in 1999. Class sizes are between 12 and 22; the school day is 8 hours, but many pre-schools start at 7:30 a.m. and close at 7:00 p.m. to accommodate working parents.

Teachers for pre-schools are prepared either in university faculties (Bachelor’s degree) or in teacher training colleges (3 year course leading to a specialist diploma). Pre-school directors are required to hold a Bachelor’s degree. In-service training is done by the Pedagogical Institute, university faculties and NGOs, for example the Open Society Foundation for the ‘Step-by-Step’ programme. In addition, pre-schools have other types of professional staff, including educational psychologists, pedagogues, nurses, logopaedists etc. Pedagogues receive special training in working with young children.

There is an MoES-developed curriculum, as well as guidelines that stress intellectual and affective development of the child, school-readiness, and understanding of the environment as well as greater emphasis on active learning. The curriculum (not obligatory but recommended, and according to the MoES most pre-schools follow this) covers 6 areas:

- Bulgarian language, oral and written;
- numbers;
- introduction to science, especially environmental topics;
- art and music;
- social and physical development;
- foreign language (in most kindergartens; this *may* be mother tongue, or even English for young learners).

New standards for pre-school were published in September 2000; these are obligatory for all kindergartens. There are ‘registers’ (checklists) for children’s achievement of these standards; assessment is done both internally and externally, with the help of inspectorates and the Pedagogical Institute. The assessment is said to be ‘child-centred’ and based on a set of expectations and criteria (*e.g.*, ‘a five-year-old should be able to tell or finish a story’ etc.) but teachers find it difficult to have time to evaluate each child. Schools are inspected by the inspectorate.

Children who are not in pre-school education are increasingly offered school-readiness programmes in preparatory classes. These are of two kinds: one for children about to enter primary school, and one for children who are already of school age but not considered ‘ready’, for example because of language difficulties (see above). Since 1998, the Law (Art. 20(2)) requires that non-Bulgarian speaking children must be given preparatory education, mostly in classes connected with primary schools.

### ***Issues and Barriers in early childhood development and education***

- *Lack of support for early childhood teachers and staff* in the implementation of the new curricula and new standards, which encourage more active teaching and learning methods.
- *Inadequate knowledge and procedures for early identification of learning difficulties or other special needs.* Only the most obvious medical problems – vision, hearing, physical handicaps – now receive attention; the approach is very ‘medical’, and learning difficulties such as emotional or behavioural problems, social maladjustment problems, hyper-activity, dyslexia etc. are largely ignored. Stronger regulations and professional resources are needed; ‘the Law is very weak’.
- *Limited participation in pre-school education.* Only about two-thirds of children of pre-school age receive any kind of pre-school education. Provision is inadequate in rural or high-unemployment areas, where poverty levels are greatest and early contact with children in difficult circumstances is particularly crucial.

### **Vocational Education and Training (VET)**

Bulgaria faces two main challenges with regard to VET: (1) the implementation of the VET Law adopted in July 1999, which complements the Public Education Act; and (2) ‘harmonisation’ of its VET system and its national needs with those of the European Union. The key issues are:

- decentralisation of the VET system;
- optimisation of the VET school network;
- co-operation between VET and labour market;
- efficiency and quality of VET;
- sustaining VET reform.

Priorities are to update VET standards, and to further develop assessment and certification. With regard to employment and social affairs, the objectives set by the Bulgarian government for human resource development and labour market policy correspond well with the priorities identified by the European Commission.

### ***Socio-economic context relevant to VET/labour market assessment***

Generally, Bulgaria’s economy is characterised by fluctuating economic growth with increase in GDP, low inflation rate, decrease in manufacturing output, negative foreign trade balance, and increasing amount in foreign investment. The investment in human capital over the 1990-1999 period ranged from 36.8% to 51% of the consolidated state budget. According to the data supplied by the National Statistical Institute, the GDP for 1999 was USD 12.393 billion and the GDP increase was 1.27% compared to 1998. The GDP per capita in 1999 amounted to USD 1 510, which is an increase of 1.8% compared to 1998.<sup>52</sup>

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52 The source for all statistics in this section is the National Statistics Institute, General and Vocational Education in school year 1999/2000.

The development of the labour market is characterised by restructuring of branches and manufactures, privatisation, liquidation of companies and new business start ups. The most recent expansion of the private sector indicates a promising dynamic, but does not compensate for the increase of unemployed in the public sector. While in 1999 the percentage of those employed in the private sector reached 63.30%, employment in the public sector dropped by 12.9% between 1997 and 1999. Small and medium-size enterprises (SMEs) have a substantial employment share – 41% – but are not yet sufficiently efficient in the current economic conditions. While the service, construction, tourism and information technology sectors are emerging, chemical industry, timber processing, textile production are in decline.

Demographic changes increasingly affect the labour market and the VET system. Between 1999 and 2010, the number of 5-14 year olds will decrease by 336 000 and the number of 15-25 year olds by 273 000 (National Statistical Institute). The economy will have to recruit from the adult population, requiring VET institutions to train adults; this is in fact listed as a priority in the National Development Plan (2000-2006).

There is also the problem of school drop-out. According to the information received during the OECD team's visit,<sup>53</sup> drop-out rates were 3.8% for VET (1998/1999 school year figures). There are no data for early school leavers who leave the education system with no or very low qualifications, or for those who complete general secondary education with qualifications that are inappropriate for the needs of the labour market. Both groups are vulnerable to unemployment.

The unemployment rate was 18.5% in March 2000, compared to an EU average of 9%. Figures for unemployment by age group were as follows: 39.2% of the unemployed were aged between 15-24, 18.4% between 25-34, 14.9% between 35-44, 15.7% between 45-54 and 14.2% over 55.

Unemployment rates by educational attainment indicate the highest rate amongst those who only have basic and lower education or no qualifications (31.7%, March 2000). The next largest group are those with secondary vocational education (17.5%) and those who have acquired general secondary education (16.4%). Most of the unemployed have no specific qualifications: 60.3% of the total registered unemployed (National Employment Service).

A characteristic of unemployment in Bulgaria is the high level of long-term unemployment, particularly amongst minority groups, young people and women. Figures for March 2000 show that the number of unemployed for less than six months (as a percentage of the total unemployed) was 25.4%. For those unemployed for more than a year this figure rises to 54.1%. Long-term unemployed with basic and lower education are 42.8% of the total. Long-term unemployed women are 54.2% of the total number of unemployed women; for men, the percentage is 54.1%.

#### *Current status of VET*

The distribution of vocational schools in Bulgaria meets predominantly regional needs. Some of the schools offer the same vocational areas as those needed in enterprises. More than half of vocational schools are situated in the biggest towns.

There are at present 47 tertiary colleges (14 pedagogical, 15 technical, 4 economic, 2 agricultural, 12 medical) in Bulgaria. Some are part of universities. The number of colleges is considered far too high for the declining number of students; moreover, they may not meet the needs of the labour market. The MoES intends to restructure the college HE system, and align it with developments in the European Union.

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53 “School Drop-outs: Problems and Reasons”, Bulgarian National Observatory, 1999.

*Decentralisation of the VET system*

The MoES has overall responsibility for policy development, implementation and control of initial (school-based) and post-secondary vocational education (up to higher education). It is operating the following schools: vocational schools, vocational high schools and vocational colleges.

In July 1999, the VETA (Vocational Education and Training Act) was adopted, making provision for the decentralisation of the VET system from state (MoES) to municipal, and from municipal to school levels which should allow a more focussed response to the needs of the local labour market. At the time of the review team's visit to Bulgaria, decentralisation procedures were with the Council of Ministers for approval. The planning and implementation of the decentralisation process have major administrative and financial management implications for municipalities and schools.

*Optimisation of the VET school network*

The MoES is empowered to open, transform and close down schools according to procedures set out in the Public Education Act. At the time of the visit, the vocational school network consisted of 626 schools. During the last two years, a total of 40 VET schools have been merged, transformed, opened or closed.

There are 30 593 teachers in the VET system. Sixty per cent are teachers of general educational subjects and 40% are practical trainers and craftsmen. Twenty-nine per cent of all teachers teach general school subjects, while 61% teach the theoretical and practical aspects of special vocational subjects. Seventy-six per cent of teachers have a higher education degree, while 22% have a post-secondary qualification and 2% a secondary education.<sup>54</sup>

The ratio of students to teachers in vocational schools is 11:1; and in general secondary schools, 12:1. For the system of secondary education overall, the ratio is 11:1.

**Table 7. Distribution of enrolled students, by school type**

Types of schools and levels	Number of schools	Number of classes	Number of pupils	Women	Men
Art schools, level three	19	231	3 539	2 096	1 443
Vocational secondary schools, level three	350	5 585	128 701	52 267	76 434
Vocational colleges, level four	23	307	6 798	3 821	2 977
Vocational schools, level three	150	2 343	50 727	14 062	36 665
Vocational schools after grades 6 and 7, level one	2	112	2 376	674	1 702
Vocational schools after grade 8, level two	1	29	409		
<b>Total</b>	<b>545</b>	<b>8 607</b>	<b>192 550</b>	<b>72 920</b>	<b>119 221</b>

Source: National Statistical Institute, General and Vocational education in school year 1999/2000.

54. National VET Report, 1999. Bulgarian National Observatory.

Table 8. Structure of school system by type of schools

Schools	Total	Primary	Basic	Lower secondary	Secondary	Combined	Schools V-XIII	Schools VII-XIII	Schools VIII-XII	Schools VIII-XI	Schools VI-VII
1.General Schools	3 098	444	1 997	25	175	402	47				
<i>Day schools:</i>	2 996	438	1 974	23	148	398	42				
Without profiles	2 871	438	1 974	23	23	398	42				
Foreign language	62				62						
Sports	14				14						
Humanities	15				15						
Natural Sciences and Mathematics	34				34						
<i>Evening schools:</i>	15				10						
2.Specialised	146	3	128		1	7	7				
3.Vocational and art schools	592							404	185	2	1

Table 9. **Students 14-19 years old in secondary vocational education and training**

Age	Basic vocational education, level one			Vocational education with matriculation examination, level three			Vocational education with acquisition of qualification only, level two			Vocation education after completed secondary education			Total vocational education and training		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
14	390	193	583	9 256	7 135	16 391	12	9	21				9 658	7 337	16 995
15	435	185	620	30 311	17 813	48 124	70	42	112	3	4	7	30 819	18 044	48 863
16	307	89	396	31 950	18 433	50 383	83	61	144	11	6	17	32 351	18 589	50 940
17	126	27	153	27 706	15 883	43 589	48	45	93	40	88	128	27 920	16 043	43 963
18	56	14	70	12 736	7 547	20 283	21	10	31	219	199	418	13 032	7 770	20 802
19	35	2	37	1 415	645	2 060	3	3	6	314	367	681	1 802	1 017	2 819
Total	1 349	510	1 859	113 374	67 456	180 830	237	170	407	587	664	1 251	115 582	68 800	184 382

Table 10. **Students in general and vocational education, 1999/2000 (ISCED 3)**

	Males	Females	Total
General education	51 512	93 475	144 987
General vocational education	114 781	68 595	183 376
Vocational education with matriculation examination	114 542	68 425	182 967
Vocational education and training with acquisition of qualification only	239	170	409
Total vocational and general education (ISCED 3)	166 293	162 070	328 363

The number of students decreases every year. However, in recent years (except for 97/98), the number of teachers has increased. This is a result of the new facilities for studying introduced in recent years and the increasing number of selective and optional subjects taught.

To optimise the school network, a committee has been established which consists of inspectors, directors of schools, representatives of the VET and General Education Departments of the MoES. The committee defines optimisation criteria and implementation plans, which Bulgarian interlocutors during the OECD review visit have considered vague. Furthermore, criteria do not take into account links with the education and training system as a whole.

The main objectives and criteria for optimisation are:

- to ensure competitive schools, efficient and acknowledged in the European Union;
- to answer to demographic developments (*e.g.* drastic decline of birth rate in Bulgaria);
- to take into account economic parameters of regions and respond to the needs of the labour market.

Based on these criteria, the municipalities together with the inspectors assess the schools under their responsibility. They make recommendations on the future of these schools to the MoES, which decides. At the time of the review team's visit, about 20 new proposals for optimisation had been submitted to the MoES.

Although maintaining the extensive school network is a major financial problem for the state, key-stakeholders are reluctant to close schools. There is fear that closure would cause mass unemployment for teachers, who may have no employment or re-training opportunities. In addition, closing might contribute to school-drop-out, if travel costs for students become unaffordable; and the important social role schools play in small communities may also be lost.

#### *Co-operation between VET and the labour market*

The Unemployment Security and Employment Incentives Act (UEIPA, adopted in 1997), and the Vocational Education and Training Act (VETA, adopted in 1999), and the Labour Code constitute the main regulative framework for joint activities of VET and labour market. This framework includes initial and continuing training, as well as retraining for the labour market. At the time of the OECD review team's visit, the UEIPA was under revision.

The MoES, through its VET system, provides training and retraining for adults in vocational schools and vocational high schools, which have to be financed by the trainees. Besides the VET schools there is a large number of training providers from public, private and NGO sectors.

The Ministry of Labour and Social Policies (MoLSP), through its National Employment Agency and its local labour offices, addresses training for unemployed persons who have a firm job offer. They also provide training for workers expected to be made redundant due to industrial restructuring. Although youth unemployment is a major problem in Bulgaria, there are no special training programmes for young unemployed.

The MoLSP also provides regional programmes for employment, 18 at the time of the OECD review team's visit. These include training measures related to regional employment needs (*e.g.* infrastructure build-up, promotion of self-employment, micro-projects for professional qualifications, etc). A joint human resource development strategy has been developed between the MES and MoLSP and

included in the Bulgarian National Development Plan (NDP) to respond to the skills needs of Bulgaria's market economy. The NDP is currently under revision and will be re-submitted to the European Commission.

The development of a joint national strategy for continuing vocational training (CVT) has started under the European Training Foundation-funded 1999 CVT project for Bulgaria. A Bulgarian inter-ministerial national CVT strategy working group has been established and a first study prepared, which now needs follow-up.

Some special training programmes exist for young unemployed; *e.g.*, a joint Austrian-Bulgarian project, financed by the Austrian Government and carried out by the National Employment Agency and a consortium of training companies. Another special project is aimed at youngsters from orphanages (2001).

### *Social partners and VET*

Quality in vocational education depends fundamentally on close links with the labour market on different levels, including social partners. The VET law provides the basis for major involvement of social partners in vocational education and training.

Although social partners in Bulgaria have been involved in the preparation of the VET law, actual co-operation between MoES, municipalities, schools and social partners is marginal. To date, there is no definition of roles and responsibilities of social partners for implementing the VET law.

### *Efficiency and quality of VET*

The National Agency for Vocational Education and Training (NAVET) was established in February 2000. It is independent of the NIE, but located in the same building. Computers were financed by the European Training Foundation, with training by the Bulgarian National Observatory.

According to the Vocational Education and Training Act (VETA) the NAVET has the following main responsibilities:

- accredit VET institutions upon request of the institution(s) or the Minister of Education and Science, or upon decision of its Governing Board.
- develop and approve criteria for accreditation in compliance with the VETA and with state education requirements.
- develop and approve accreditation procedures and related documentation.
- issue and withdraw licenses for provision of vocational training and/or career guidance.
- draft and propose to the Minister of Education and Science:
  - the list of vocations for VET; b) the state education requirements for acquiring qualification in vocations; c) the state education requirements for documents in the public education system, d) the state education requirements for the assessment system of vocational education and training; e) the national assignments and the standardized criteria for the national examinations for acquiring vocational qualification;

- express opinion and propose to the Minister of Education and Science amendments to the VET school register;
- assign research projects and respective implementation in the area of vocational education, training and in career guidance;
- co-ordinate the development of strategies for vocational education and training promotion and upgrading;
- contribute to the international recognition of vocational education and training certificates;
- generate and maintain a register of the vocational training centres and the vocational information and career guidance centres.

There are seven people working in NAVET (staff detached from the National Employment Office, National Institute of Education, MoES). The intention is to recruit a total of 26 employees.

While the NAVET is considered of utmost importance for the implementation of the VET law, the actual tasks to be implemented by NAVET, and related financial issues, need further definition and agreement by all stakeholders involved, to ensure successful operation.

#### *Inspectorates and their involvement in VET*

The 28 inspectorates for secondary education are also responsible for VET. Inspectorates consist of experts monitoring subject didactics; they concentrate on supervising how state requirements are implemented, but do not review performance of individual teachers. They also provide training for teachers in subject didactics in general education, but there is no provision for VET-specific monitoring and training.

Inspectors co-operate with MoES and the local labour office on VET curriculum development on an informal and *ad-hoc* basis. They also co-operate with municipalities, especially in the framework of VET school optimisation.

Roles and responsibilities of inspectors regarding the implementation of the VET law are vague and unclear for all key-stake-holders involved. Especially their dual role of support and control is not clear for teachers, and indeed for many inspectors themselves.

#### *VET teacher training and training of administrative staff in VET schools*

Under the Phare VETERST programme (Vocational Education and Training, Education, Research, Science and Technology) three centres for VET teacher training were established as part of VET schools. This included provision of equipment and training of teachers on new methodologies (interactivity, group work, modular curricula introduction, PC skills, languages, etc.). In addition, some administrative staff of selected pilot schools was trained on financial and school management.

After the end of the Phare VETERST programme, no financial means have been allocated to further teacher/administrative staff training by the MoES. Occasionally, teachers from VET schools trained in new methodologies under the VETERST programme provide training to colleagues from other schools.

Besides the three VET teacher training centres, there are three national teacher training institutes, where VET teacher training plays only a marginal role. These centres are part of universities (Sofia, Varna) and provide training in the education process as well as in didactic issues in the humanities, natural sciences and pedagogy. The most popular courses are in new technologies and languages, and are also available for VET teachers.

Although many VET teachers have little pedagogical knowledge and skills (as they often come from industry), no tailor-made training is provided for them in the teacher training institutes of the universities.

### *Curriculum development, standards and assessment*

#### Curriculum

Vocational schools, vocational high schools and vocational colleges deliver a national curriculum from initial training up to high school. Curricula are developed for 289 professions or specialities. Representatives of the MoES, teachers, inspectors and (on an *ad hoc* basis) social partners and industry, are involved in their development.

The curricula contain a compulsory general component guaranteeing that students acquire the general educational minimum defined by law. The main emphasis is on vocational training, including especially vocational training common for all occupational areas, and sector-oriented vocational training. While general subject areas are taught mainly at the start of vocational studies, vocational training hours prevail during the final years. This means that students from VET schools have serious difficulties in passing higher education entrance exams, and many are excluded from higher education studies.

Although the Phare Upgrading of Vocational Education and Training Project (UVET) has introduced task-based, modular curricula in pilot schools, curricula remain primarily school-based, without enterprise practice. In the absence of an operating apprenticeship or work placement scheme, practical training takes place in schools, which are often insufficiently and/or inappropriately equipped. In addition, most curricula still in use in the schools are outdated when compared to 'state of the art' in western European countries; Bulgarian VET curricula are highly job-specific and still prepare students for jobs which no longer exist. With their emphasis on information rather than on skills and competence, they do not prepare students for the European labour market. At present, most graduates from VET schools need further training before they can enter the labour market, or they cannot find employment at all.

With regard to new technologies and electronic learning, 'e-learning' so far has not been applied in VET. Negotiations are expected between the National Contact Point for Distance Learning and the MoES, on the introduction of Open and Distance Learning (ODL) components into VET curricula. Experience from the Phare Multi-Country programme for Distance Learning should be tapped.

#### Standards

National standards for 18 occupations of 11 occupational families have been developed under the Phare VETERST programme, as follows: construction technician, economist-organiser, geodesist, car mechanic, technician in wood-processing, tailor-designer, computer technician, baker, hotel and catering, telecommunications technician. These vocations are considered priorities in the country's economic development. The standards were piloted in 30 vocational schools.

## Assessment

Students have to pass the following five state examinations: matriculation examinations – Bulgarian language and literature, two other general education subjects, theoretical examination in the vocation, practical examination in the vocation. The award of a leaving qualification certificate is based on final theoretical and practical examinations, which are held at the end of training courses, and on the continuous assessment of student skills. A credit system was introduced, on a pilot basis, as part of Phare VETERST. Such a system is consistent with both continuous or periodic assessment and final examinations. Under Phare VETERST, a system for evaluation, using a modular approach, was developed for all occupations covered. A national standard for evaluation is also under preparation.

While NAVET will play a role in updating and inter-linking curriculum development; standards and assessments systems, no systemic approach has been developed so far, and roles and responsibilities of key-stakeholders are not clear.

The current process of gathering and analysis of standard information as a basis for policy decisions is inadequate, and lacks transparency and accountability.

## *Financing of VET*

The three main sources of finance for VET in Bulgaria at national, regional and local levels are the budgets of the state and the local authorities, the Professional Qualifications and Unemployment Fund, and external financing.

VET schools are financed from the state budget, to be devolved in the future to the municipalities and further delegated to the schools. According to the 1999 MoES report, expenditure on vocational schools amounted to 67 100 000 leva. This indicates that the average expenditure per VET student in 1999 was 333.23 leva.

The percentage of funding for VET from the total MoES budget is 50.5%. This represents over 6% of the consolidated Government budget, and about 1.25% of GDP. The budget for education as a percentage of GDP was respectively 3.63% for 1999. This is low in comparison with the average in most EU candidate countries.

The state and municipal budgets cover of initial VET and staff on a unit cost basis (number of students, classes, etc.). The provision of money follows a specific formula, which is non-transparent and changes every year. Additional funds are raised by the individual institutions, mainly through the provision of training courses for labour offices. VET schools also provide paid afternoon and evening classes for adults, and produce goods for selling. These additional incomes are insignificant, and in any case must be returned to the state; naturally, there are no incentives for schools to become self-financing or to make savings on their expenditures.

Overall, VET schools are in poor financial shape: their equipment is outdated, salary payments for staff are irregular, and utility costs are high (especially for heating).

The training offered by the National Employment Service and local labour offices is funded through the Professional Qualification and Unemployment Fund (PQUF). In 1999, payments to the Fund amounted to 4% of wages; 0.5% were paid by the employees and 3.5% by employers. The tax regulations for 2000 envisage a continuation of this tax, but the burden will be distributed differently: 0.8% will be paid by employees and 3.2% by employers. In 1999 active employment measures took up 25.9% of which only 2.4% financed training activities. The available statistical data on the training/retraining of the

unemployed are incomplete. In 1999, a total of 1 592 400 leva (0.78% of the 205 445 215 leva available in the Professional Qualifications and Unemployment Fund) were used for active training.

With regard to external funding<sup>55</sup>, according to recent data, projects with budgets totalling USD 42 963 000 have been launched in the last four years. This is equal to 0.46% of total expenditure on educational projects. In 1998, a total of USD 5 089 000 were utilised, while in 1999 the figure was USD 5 600 000. These funds represent approximately 70% of all funding from external sources, and are earmarked for VET; this indicates that vocational education and training are the main priority for external funding.

### *Sustaining VET reform*

Given the present economic situation in Bulgaria, it will be difficult to keep up the momentum of VET and labour market reform. It is therefore important that human resources development continues to be supported within the framework of the National Development Plan, especially the Phare programme. It is also important that MoES and MoLSP, and other relevant authorities, set coherent priorities for support for human resources development and that these be translated into a clear strategy for implementation of the reform and that respective resources are allocated.

It must be underlined that implementation of reform is not only a question of financing: it requires skilled staff in MoES, MoLSP, and related institutions to take the reform forward. Institutional capacity to implement the reform must be strengthened, with the support of programmes such as Phare or the World Bank loan.

### **Issues and Barriers in VET and adult education**

- *Sharp decline in numbers of young people entering the job market.* The (re-)training of adults will need to become a priority for VET institutions. Special training programmes for young unemployed are also lacking.
- *Students dropping out of VET schools or leaving with very low qualifications.* Both groups are highly vulnerable to long-term unemployment; more needs to be done to prevent drop-out and ensure that students leave school with employable skills.
- *Low efficiency in the VET system.* While student numbers have declined, the number of VET teachers has increased; moreover, there is room for consolidating and optimising the VET network. Criteria for VET optimisation are still vague, and insufficiently linked with parallel efforts in the general education system. Decentralisation and optimisation processes are not interlinked; better interfaces would support a coherent reform process.
- *Uneven quality of VET provision.* The newly established National Agency (NAVET) is expected to ensure quality in a number of ways; however, NAVET is still under-staffed and its tasks are highly demanding.
- *Lack of VET specialists at the inspectorates.* This means that inspectorates are unable to offer VET-specific monitoring and training to schools. This problem is compounded by the fact that many VET teachers come from industry, and have not received training in didactics and

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55. Donors include the European Union, the World Bank and bilateral and international contributors.

pedagogy; they are therefore even more in need of expert support than teachers in general education.

- *Lack of balance in VET curricula.* General education requirements are usually taught at the beginning of VET study programmes, leaving the remaining years predominantly for vocational studies. Students from VET schools thus arrive at their higher education entrance exams much less well prepared, and failure rates are high. Skills provided by VET schools rarely meet the needs of the labour market; there need to be much better linkages, and responsibilities should be shared.
- *Need for wider use of Open and Distance Learning (ODL) in VET.* ODL would be particularly useful for (re-)training of adults and unemployed youth.

## Higher Education

### *Context*

For almost half a century, prior to 1990, Bulgaria's higher education system had been moulded in the Soviet model. It was strongly state controlled in terms of ideology, curricula, organisational and administrative framework. Of the 30 higher education institutions (HEIs) by 1989, only three – the Universities of Sofia, Plovdiv and Veliko-Tarnovo – were multi-disciplinary institutions. The others followed the specialised professional training institute model favoured by the Soviet approach, e.g. pedagogical, technological, agricultural, and medical institutes. While high levels of scholarship were often promoted, the communist party greatly influenced the ethos of HEIs. The predominant course model was the Master's Degree, usually following a five-year course structure. Further graduate studies were highly selective, with the government determining the number of students going forward for the degree of a "science candidate", equivalent to doctoral studies. The numbers of entrants to all courses were centrally determined and the curricula laid down in detailed format. Student teacher ratios were low, at about 7.5:1, student lecture loads were heavy, at about 30 hours per week, and the style of lecturing tended to be of a formal expository type. Student enrolment in higher education was traditionally small, numbering 101 000 in 1980. However, a spurt in student numbers took place in the 1980s, so that by 1988/89 almost 127 000 students were enrolled.

With regard to research, while the law from the 1960s had strict requirements regarding the research output of academic staff in the universities, seriously affecting their tenure and promotion prospects, it was the Bulgarian Academy of Sciences (BAS) and its institutes which were most favoured with state funding for research. The Academy of Agriculture and the Academy of Medicine were funded for research and were also engaged in professional education. For instance, the latter trained doctors, dentists and pharmacists, and is today known as the Medical University. Research groups in the higher education institutions did much creditable research work, without benefiting from the scale of resourcing and the prestige of the academies. The general research agenda was influenced by political considerations and was totally reliant on state funding. Some publicly funded enterprises also had research institutes.

The political changes of 1989 created a greatly changed the context for Bulgarian higher education. The adoption of a democratic political regime oriented towards a market economy and greater international integration, creates a framework for higher education in strong contrast to that which went before. However, there is an organic character in the formation of education systems through which the elements which shaped them continue to influence them and cast shadows over them when they seek to develop in new directions. Traditional ways of thinking and habitual modes of procedure do not change

overnight. New challenges and aspirations call forth new energies but it is also to be expected that tensions and apprehensions will exist as the old order yields place to the new. The recent history of higher education in Bulgaria provides a fascinating case study of a higher education system in transition. It needed to discard many of the inhibiting features of the older era and to devise a host of new policies and procedures in keeping with democratic principles and a greatly changed socio-economic order.

As early as 1990 the Academic Autonomy Act was passed which provided a much more open, flexible and liberal development framework for higher education. Institutions were granted full autonomy, private institutions were authorised, courses could be developed without having to comply with designated standards, fees for teaching were permitted, new branches of existing institutions could be established, and so on. The heady excitement of the new de-regulation policy soon gave rise to concern that higher education was evolving in a rather chaotic way which could imperil its quality. Over 100 new faculties were established, programmes increased from 150 to 490, five private universities were established, a multitude of outreach branches of higher education institutions mushroomed. Student numbers expanded enormously within a short time, and now included students who were able to pay tuition fees, and who often were admitted on the basis of lower qualifications than the state-supported students. The total number of students in higher education increased from the 127 000 of 1988/89 to reach 248 570 in 1995/96, an increase of about 95%.

By the mid-1990s the government had become concerned about its lack of control over developments in higher education. Thus, in 1995, the Academic Autonomy Act was replaced by the Higher Education Act. This was a much more regulatory measure which sought to establish a balance between the authority and responsibility of the state relating to higher education and what the state regarded as the appropriate degrees of autonomy and freedom of the institutions in the conduct of their affairs. This included the right of staff in the higher education institutions to elect their own rectors and governing bodies independently of the state, and the freedom to teach according to the institutions' academic standards. A clear intention of the legislation, however, was to rein-in what the government judged to be over-liberal legislation which deprived it of a steering role for higher education in the building of the new Bulgaria.

### *Current status*

In 2001 there were 91 higher education institutions (Higher Schools) in Bulgaria. There are 47 universities and equivalent institutions, including 33 public universities and higher institutes, 6 military institutions, and 8 private universities. In addition, there are 47 colleges of which most are attached to universities, and 6 of these are private. The Higher Schools are located in 26 towns throughout the country and cater for a total of 234 604 students.<sup>56</sup>

Thus Bulgaria now has a very large higher education infrastructure to maintain. The institutions vary greatly in quality, prestige, range of subjects and student enrolment. The higher education system would benefit from greater co-ordination and rationalisation. However, the closure of institutions is not politically easy to achieve in current circumstances. In the context of a declining population, new accreditation procedures and new competitive funding initiatives circumstances are likely to encourage rationalisation. Some institutions may close, but others could be encouraged to merge, form networks or establish partnerships which could facilitate a diversity of tertiary education provision of good quality, and geographically accessible to the general population.

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56. Ministry of Education and Science (MoES). *Higher Education 2001*, Volume II, Sofia 2001.

Distance education is not well developed in Bulgaria. Working in conjunction with the Phare Multi-Country Programme for Distance Education (1995-99), the National Centre of Distance Education, involving an association of 20 Bulgarian universities, was set up within the University of Sofia. While interesting, innovative work has been conducted there, with the ending of the Phare project the finances for the Centre and for the operation of a distance education system are no longer sufficient. The review team formed the view that, for the present at least, distance education is not high on the priority list of either academics or Ministry. Nevertheless, many of the part-time students use forms of distance education by correspondence. In the longer term, and in the context of a lifelong learning policy approach, the potential of qualitative distance education should be explored and developed.

A notable feature of higher education in Bulgaria over recent years is the extent to which it has opened up to international linkages. The availability of much needed expertise and resources through partnerships with external agencies has been a major motivating factor. There is also the desire that Bulgarian standards be in line with western European and international trends. Bulgaria ratified the Lisbon Convention on the recognition of qualifications in July 2000. Support from the European Union has been valuable. Involvement in Tempus projects has helped to cultivate awareness of best international practice and contributed to staff development at senior levels within the higher education institutions. Participation in Phare projects such as “The European Dimension of Institutional Quality Management” and “Quality Assurance in Higher Education” has helped to prepare the way for significant policy initiatives by the Ministry in such areas. Now a budget line has been established to facilitate co-financing of EU initiated projects such as Socrates, Erasmus, Leonardo da Vinci. The Socrates section of the Ministry was established in December 1998 and Bulgaria became a participating country on 1 April 1999.

Bilateral aid programmes with countries such as Austria, Germany, Denmark, the United States and international assistance by the World Bank have also been drawn upon by Bulgaria for system analysis and policy projects in education, including higher education as part of the “Education Modernisation Project”. The Ministry of Education and Science’s “Strategy for the Development of Higher Education in Bulgaria” (1999) has been significantly influenced by the views of World Bank experts. The emphasis is on the strategic development of managerial and administrative capacity and on quality improvement in teaching and learning within the higher education sector. These aims are being assisted by the Open Society which is also supporting efforts for the improvement of information on the education market. The Open Society has begun the operation of its “Inter-University Fund for Development”, in 2000, aimed at the institutional reform of Bulgarian higher education institutions. Prompted by a concern about a possible lack of coherence and strategy of the many aid programmes during the nineties, the Open Society has initiated a project to create an integrated knowledge source on international involvement in the development of Bulgarian education institutions.

While the higher education system was expanding, the resources for sustaining it were contracting. Expenditure per higher education student declined significantly during the 1990s. In real terms the ratio of unit cost per capita GNP dropped from around 42% in 1991 to around 22% in 1998.<sup>57</sup> It has been a very difficult period for those seeking to sustain what is worthwhile in Bulgarian higher education while, at the same time, seeking to improve its quality and to modernise processes in line with best international practice. Despite the difficulties much is being achieved, and an admirable commitment is observable among many politicians and academics in seeking to promote the reform process.

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57. José J. Brunner, “Bulgaria: Higher Education – Policy Design and System Management” (1999) Mimeo, p.9. MoES, “Strategy for the Development of Higher Education in Bulgaria,” 1999, Mimeo, p.9.

### *The Legislative Framework*

The Higher Education Act, as amended in 1999, regulates the establishment, functions, management and financing of higher education. In contrast to the former regime, Article 3 states “Higher secular education shall be free of ideological bias, religious, and political doctrines. It will comply with universal human values and national traditions”, and Article 4 rules out all forms of discrimination. The Higher Education Act is a very comprehensive and detailed measure, incorporating 11 Chapters and 96 Articles. It reflects a tendency, also noticeable in other central and eastern European countries, of a great reliance on getting things framed in legislation, even if the implementation of the law can sometimes lag significantly behind. The Act serves as a major reference point for all aspects of higher education.

The state’s authority in relation to higher education is exercised through several structural tiers – the National Assembly, the Council of Ministers, the Ministry of Education and Science (MoES) and the National Evaluation and Accreditation Agency. The legislation reflects the very detailed regulatory framework through which the state seeks to control higher education. The Council of Ministers is responsible for the “Regulations of Unified State Requirements” for each of the 194 registered programmes. These state requirements specify such elements as length of studies and minimum study hours; distribution of core curriculum time; mandatory minimum lecture hours; minimum hours that part-time students must attend; proportions of lecture hours to be conducted by high-ranking staff; provision of state examinations. The state sets out students’ admission procedures and determines the number entering each higher education institution every year, and the number of students for each speciality. It also determines the amount of the application fees and the tuition fees to be charged for state higher schools. The establishment of new teaching programmes or new academic units such as a department or faculty need to be approved by the Council of Ministers. The National Assembly reserves the right to establish, transform or close higher schools. The National Evaluation and Accreditation Agency evaluates and provides accreditation for institutions and programmes, and is designed to promote quality assurance in higher education.

The balance of authority in relation to higher education policy decisions is strongly in the state’s favour. While some academics with whom the review team discussed this issue were comfortable with the situation, others considered that the state’s role was now too intrusive and restrictive. The re-assertion of state control in response to the earlier very liberal Autonomy Act is understandable, but it may have gone too far in seeking to codify so many features of the work of the institutions. The capacity of the Ministry to guide and oversee the whole of higher education is also in question. Article 10 requires the Ministry “to exercise control over the higher schools as to the observance of this Act and the state requirements”. The bureaucratic dimension involved in this surveillance is a time consuming process, particularly in the absence of efficient and qualitative data and information processing. More importantly, this policing role is likely to marginalise areas of responsibility which should be the central concern of the Ministry, *e.g.* strategic planning and the promotion and co-ordination of modernising and quality improvement initiatives.

### *Quality Assurance and Accreditation*

The National Evaluation and Accreditation Agency (NEAA) is a state-subsidised legal entity and “specialised governmental authority” for the quality assurance and accreditation of the activities of the higher schools. The Decree establishing the Agency was issued in August 1996 and the Agency became fully operational in December 1997. The legislation affecting the Agency was amended in 1999 and the reconstituted NEAA has begun operating under Chapter Ten of the Higher Education Act. The Agency has the responsibility for institutional and programme accreditation.

Under the amended legislation institutional accreditation has to precede programme evaluation. Accreditation is conducted along a four-grade scale: Very Good, Good, Satisfactory, Unsatisfactory. The accreditation is valid for five years when the grade is Very Good or Good, and for three years when the grade is Satisfactory. Accreditation is not granted when the grade is Unsatisfactory. Accreditation is necessary for state recognition and financial subsidy.

The workload of the NEAA is daunting. Under the former Council 21 Higher Schools have achieved accreditation; the others were required to apply for institutional accreditation by January 2001. There are plans for 500 programme evaluations. This will require a massive amount of organisation and processing. The time scales set out in the legislation for the processing of applications are very tight and appear unfeasible. The reconstituted Council has set about its work in drawing up regulations and organising its committee frameworks in an impressive way, but it is being given very little time to “bed down”, to establish itself and to lay the foundations for its satisfactory and efficient working. It may well be that it is being asked to do too much too fast. There is also a danger of over-drawing on the goodwill of experts who agree to work on panels for very small honoraria.

Questions also arise regarding the outcomes of the elaborate accreditation procedures. If a decision is negative, the institution can continue to operate until a second evaluation takes place which can be delayed 18 months, or longer, at the discretion of the Council. If the second evaluation is negative, the Minister can propose to the National Assembly to close the institution, or at least withdraw recognition. However, this can be a complex process and be subject to political interests. It is too early yet to evaluate the true import of negative decisions by the Council. On the other hand, it could happen that the Council might be used as the agency which could lead to a greater rationalisation of the fragmented higher education sector.

### *A Strategy for Higher Education*

Drawing on the experience of the Tempus and Phare projects and on the analyses of World Bank experts, the government has prepared “A Strategy for the Development of Higher Education in Bulgaria” (1999).<sup>58</sup> While the Higher Education Act and the NEAA form key planks of the state’s regulatory apparatus for higher education, the ‘Strategy’ is devised as a policy document. It provides an overview of how the Ministry views higher education at this time. It attempts to contextualise higher education, to identify its problems, to set out a strategic vision for the future and to designate means for achieving the Strategy’s objectives. As a major, recent policy statement the document deserves close attention.

Section III of the Strategy sets out a range of policy objectives. The admirable main objective is “To improve the quality and relevance of Higher Education while retaining accessibility and increasing equity” (p.7). Important strategies include:

- Reduction of the participation rate from the present 60% of school graduates’ enrolment to about 40%.
- Rationalisation of the number of institutions.
- Increases in staff/student ratios.
- Financing based on demand-driven priorities of the market economy and social changes.

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58. MoES “A Strategy for the Development of Higher Education in Bulgaria,” 1999, Mimeograph.

- A change in the distribution of student places from 194 specialities to 19 or 20 “scientific spheres or areas”.
- Involvement of employers and social partners in educational standards, programmes and ancillary equipment.
- A view of lifelong learning as “the only way to satisfy the needs for new knowledge and skills”.
- An intention to introduce tuition fees for everybody, with a scheme for student loans and stipends. The 1999 amendments to the Higher Education Act allowed for the introduction of overall tuition fees “which shall not exceed 30% of the actual costs”.<sup>59</sup>
- Introduction of unified entrance examinations to higher schools.
- Replacement of state requirements for the specialities with standards, “which will create conditions for the design of wider-profiled, flexible, modern curriculum”.
- An emphasis on the necessity for students to learn how to study, thus preparing them for constant training throughout their lifetime.<sup>60</sup>

Resources to achieve the Strategy objectives appear unrealistically limited. The review team understands that the funding for the higher education section of the reform initiative is about USD 6 million for the first period of three years, largely from World Bank loan sources. Institutions will be glad of any financial assistance, but there seems to be a mismatch between the range and depth of the policy expectations and the capacity and resources being provided to deliver them.

### *Students and Teachers*

While students and teachers are affected by all aspects of the higher education environment, there are a number of issues which impinge on them very directly and because of their importance are dealt with specifically in this section.

#### Patterns of student participation

A striking phenomenon over the 1990s was the steady increase in the rate of student participation in higher education, as shown by the following table:

**Table 11. Total student numbers in higher education, 1990-91 – 1999-0**

1990-1	1991-2	1992-3	1993-4	1994-5	1995-6	1996-7	1997-8	1998-9	1999-0
183 453	181 269	192 270	203 601	221 207	248 571	260 682	257 929	259 169	258 230

*Source:* Statistics supplied by the Human Resource Development Centre, 2000.

59. A student loan scheme is to be developed, with the help of a World Bank loan and the state budget.

60. While listing this range of rather radical policy objectives, Section III does not indicate how most of them might be realised in practice.

This represented an increase of slightly over 40% in the decade. However, it is noteworthy that the main surge occurred from 1990/1 to 1996/7, after which the numbers have remained constant. Only a small proportion of students are enrolled in private institutions – about 10%. The proportion of part-time students to total enrolment increased from about 25% to 36% over the decade.

Part of the major expansion in student numbers was caused by the new found freedom of institutions to recruit fee paying students, even though they had not reached the entry standard required of students whose fees were paid by the state. This was a valuable source of income, but created problems for maintaining standards, as well as problems of equity. This pattern of student recruitment has now been forbidden. Legislation now states that students can be required to pay up to 30% of the real cost of their education. The state pays the rest for students, all of whom have to pass entrance examinations. In reality, due to the difficult economic circumstances, most students pay much less than 30% of fees at present.

Females have consistently formed more than 50% of the student body throughout the 1990s. Statistics are not available for the participation rates of ethnic minorities or for different socio-economic categories. However, it is accepted that the proportion of ethnic minority students in higher education is minuscule. Overall, it is established that students enrolled in higher education in 1999/00 amounted to 35% of the 19-24 cohort.<sup>61</sup> This is a strong performance by Bulgaria and is ahead of countries with a similar GDP per capita.<sup>62</sup> The proportion of school leavers going on to tertiary education is 60%.

In the Strategy Document the Ministry has indicated its intention of reducing this to 40% of school leavers. This does not seem to be a wise strategic approach. One of the key problems in the school system is the actual high dropout rates involving ethnic minority children, but by no means those alone. The aim should be to increase the proportion of children who complete secondary education in the first instance, and then take an informed view of the percentage of those who should go on for tertiary education. There is a danger of the 60% *transfer* being interpreted as 60% *of the age cohort*. In the context of human resource development as well as social equity, there may be merit in seeking to support a 35% or more of the age cohort going on to tertiary education.

The increase in enrolment has occurred against a background of population decline. This decline is expected to continue and it has been projected that graduates from secondary schools who numbered about 93 000 in 1995/96 will be reduced to about 78 000 in 2005/06 and to about 43 000 in 2015/16<sup>63</sup> Demographic forecasting is an inexact science, but if such a massive decline took place it would have very serious repercussions for higher education. In any case, the demographic trend should ease the pressure for places, and a sharp reduction in the student numbers authorised by government would seem to be misplaced. According to statistical data supplied by the HRDC, the student annual drop-out rate is relatively small at 5%, but more detailed research is desirable on drop-out and success rates.

During the early surge of student expansion there was a massive influx into the Educational Sciences and Economics. This pattern has now changed, except in the case of Economics and Management. Figure 1 shows the pattern of enrolment in some key professional areas in recent years.

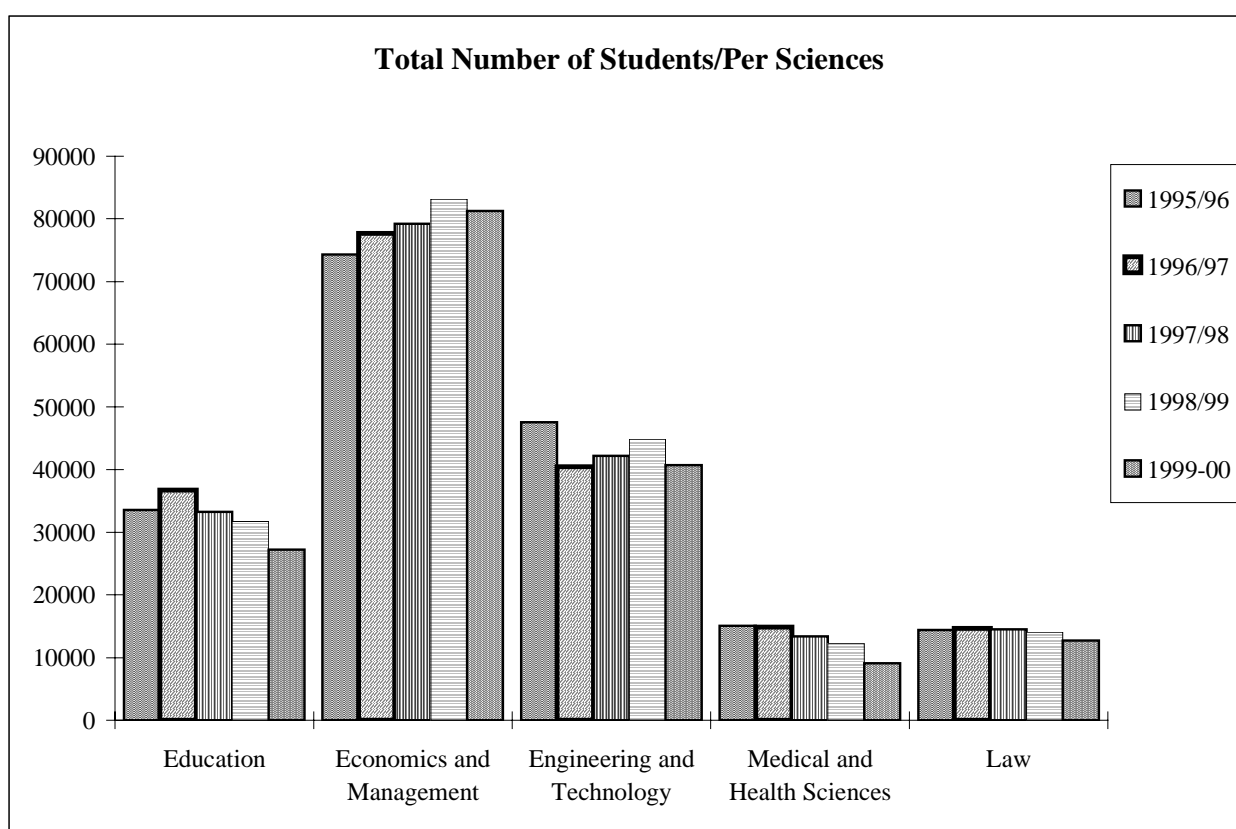
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61. Statistics supplied by the Human Resource Development Centre, 2000

62. José J. Brunner, "Bulgaria Higher Education: Policy Design and System Management," Report for the World Bank, 1999, p.5.

63. José J. Brunner, *op.cit.*, p.6.

Figure 1.



The intention of giving students a role in the affairs of the institutions is admirable, but the reality is much less impressive. The review team was informed that Student Councils have not been established in many institutions, their input to course design and evaluation does not occur, there is no unified national body representing student interests.

Fees for all students have been introduced, albeit at a low level. The government has announced its intention of introducing a student loan scheme and has had discussions with various agencies on the most appropriate format. The public is apprehensive about the operation of such a scheme and students are concerned about it. However, if a satisfactory scheme can be devised for Bulgarian circumstances, it would be of long-term benefit to the system.

The government is also in the process of reforming the student stipend system. Hitherto, these have been mainly awarded on the basis of social criteria and on academic excellence. In current circumstances, the review team sees little justification for the academic excellence criterion, and agrees with the government's attempt to combine these elements, giving the main emphasis to social need. Plans have not been finalised, but it is expected that the *number* of stipends will be less but the *amount paid* more significant and better targeted.

The student representatives whom members of the review team met were very concerned about deteriorating conditions in student hostels. The ceiling on the rent of a room for students is reasonable at between 20 and 30 leva per month, but it may be that this is at the expense of very unsatisfactory living conditions. Overcrowding, poor heating, poor sanitary arrangements, and non-functioning elevators do not make for congenial living or study arrangements.

## Courses and study patterns

The Bulgarian government has introduced the multi-degree level framework in place of the older system seeing it as more in harmony with the needs of contemporary Bulgarian society and international trends. Thus, Article 42 of the Higher Education Act sets out the following framework:

- First Degree: a minimum of 4 years of training – ending with a Bachelor’s degree;
- Second Degree: at least 5 years of training or at least one year after the Bachelor’s degree – ending with a Master’s degree;
- Third Degree: a minimum of 4 years of training after the Bachelor’s degree or 3 years after a Master’s degree – ending with a Doctor’s degree.

While the new framework is gaining acceptance, the review team found evidence of continuing allegiance to the previous scheme, uncertainty about the value of the Bachelor’s degree, and unease that one could gain a Master’s degree with less research input than formerly. The review team considers that the government approach is the correct one and, following a transition period, is likely to become the norm. However, students have a need for greater career guidance and counselling during what can be a confusing transition period.

The review team also supports the attempt to reduce the over-specialisation which was traditional in higher education. Any moves towards greater flexibility for student course choice, while maintaining standards, would be beneficial for the system.

The review team was concerned about the high numbers of course contact hours required of students. The average attendance requirement is 30 hours per week. This tends to foster a very teacher-dependent ethos. In particular, it cuts down the time available for study, reflection and research by the students themselves. In modern society self-reliant learning by students and the skills and motivation of a “learning to learn” approach are crucial for the era of lifelong learning. As the Strategy document states the curriculum and timetable design are “often designed to suit tutors’ interests, not the students” (p. 9). It is also the case that while there is a formal requirement of extended attendance, it is increasingly being honoured more in the breach than in the observance, and so can be self-defeating. The absences, however, are not usually for study purposes, but more frequently to earn some money through part-time work.

The quality of education available to the large percentage of part-time students gives cause for serious concern. The number of lectures and workshops available to them amounts only to three weeks in a semester, compared to 15 weeks for a regular student. They have very limited access to lecturers. Access to library facilities and good textbooks is very difficult for the majority of them. Unlike regular students, too much is expected of part-timers’ own efforts, working from a non-academic environment. Statistics are not available for the success rates of such students, but the obstacles in their path are formidable. More than one in three enrolled students now engage on a part-time basis, although current MoES policy is to reduce the number of part-time places because of low quality. In the period 1998-2000 the percentage decreased from 34% to 31%. Nevertheless, the issues involved for part-time students need urgent attention, policies are needed to strengthen the quality of their higher education. More attention must also be paid to post-graduate students, who now form a declining proportion of students. It is important to ensure that a good proportion of the brightest graduates are encouraged into post-graduate studies, some of whom might form the “new blood” so urgently required within academic staff.

### Teachers

The academic staff of HEIs in Bulgaria have faced great difficulties over recent years. Many are highly qualified academics and researchers who, despite greatly reduced conditions of work, have shown admirable dedication and professional commitment. Others have left the institutions for other employment at home or abroad. There is a dearth of “new blood” entry to academic life. A range of problems now affects academic life which must be addressed urgently. Legislative reforms and new accreditation and evaluation structures will not achieve a great deal unless the system has a teaching and research force of high calibre, with a good sense of morale, who enjoy reasonable salaries and conditions of work. The quality of higher education depends upon the quality of teaching and research staff. Profile of the teaching force.

The staff/student ratio in Bulgaria, as has been the tradition in Central and East European (CEE) countries, is very favourable by OECD standards. Recent statistics show that the average ratio is 1:10. (The real ratio may be somewhat lower than this when adjustments are made for part-time students.) Of course, ratios vary between disciplines; it can be as high as 1:50 in Economics, and as low as 1:2.5 in Medicine. Nevertheless, the general pattern is a generous provision by the standards of more developed countries.

Linked to staff/student ratio are the regulations regarding teaching hours of staff. The necessary annual minimum number of academic hours per teacher is 360. The curriculum is organised to ensure this number of hours for each lecturer. Apart from the economic weaknesses of such a system, it leads to an overload of teaching hours for both teachers and students and is linked to the previous tradition of narrow specialisms. If the lectures are also of the old-fashioned teacher-centred expository model, it can be even more unproductive for both parties.

The age pattern of academic staff is a cause of major concern, reflecting a great imbalance in its structure. 69% of professors in Bulgaria are between the ages of 60 and 69. On the other hand, only 9% are in the age group under 54 years of age.<sup>64</sup> While many fine scholars are to be found among these elderly professors it is also the case that the great majority have been formed in an earlier era and became used to the procedures of academic life during the previous regime. Many of the new policy approaches are not congenial to them; yet they are reluctant to retire at pension age due to the low pensions. The age imbalance in the teaching force has many disadvantages; but with good personnel planning there is also an opportunity to restructure staffing policy, including staff/student ratios.

**Table 12. Ageing staff in higher education, 1998/99**

	Total	Up to 54		55-59		60-64		65-69		70+	
		No	%	No	%	No	%	No	%	No	%
Professors	1 122	104	9.27	238	21.21	453	40.37	326	29.06	1	0.09
Assoc. Prof.	3 369	1 983	58.86	921	27.34	446	13.24	18	0.53	1	0.03
Chief Assist.	5 512	4 884	88.61	511	9.27	117	2.12				
Senior Asst.	1 613	1 597	99.01	14	0.87	2	0.12				
Assistants	1 362	1 360	99.85	2	0.15						
<b>Total</b>	<b>12 978</b>										

Source: MoES, 2000.

64. MoES, “Strategy on Higher Education,” p.5.

Higher education has suffered from an internal brain-drain to other occupations and an external brain-drain to foreign countries. In particular, very bright young academics are attracted to institutions where salary and research conditions are far better than in Bulgaria.

The Higher Education Act (Article 57) requires each institution to assess the contribution of each member of the academic staff to the teaching, research, artistic, administrative and other activities of the institution. For non-habilitated staff the performance assessment should take place once every 3 years and for the habilitated staff once every 5 years. The criteria are demanding and appropriate for normal circumstances, but show little cognisance or understanding of the day-to-day circumstances in which many Bulgarian academics have to work. There needs to be a much greater concordance between the supply side in terms of resources and staff development provision and the appraisal side as set out in the legislation. However, it does not appear that much progress has been made in the implementation of Article 57, as yet. Quality promotion and quality assurance with regard to academic staff need to involve support as well as pressure and need to be conducted sensitively if they are to promote improvement.

### *Research in Higher Education*

During the 1950s and 1960s, the Bulgarian Academy of Sciences (BAS) evolved as a large system of research institutes. By 1989 BAS had more than 100 institutes, centres and other units with a staff of over 15 000, half of whom were researchers. The mission of BAS was focussed on advances in basic research in almost all fields of knowledge. The Academy of Agricultural Sciences (AAS) had also been created and comprised over 70 research institutes and units around the country (This is now known as the National Centre for Agricultural Sciences [NCAS]).

The creation of two parallel networks for basic research – the universities and the institutes of BAS – has been quite costly for a country of the size and resources of Bulgaria. It should also be underlined that during the communist period a much greater proportion of the funding for research was provided to the institutes of the Academy of Sciences. Under these conditions, the funding for the research infrastructure and programmes in the HEIs has remained a lower priority. University researchers were forced to seek alternative ways of funding. Many HEIs, especially the technical universities, established strong links with particular industries. These mechanisms of co-operation were successful though they could not compensate fully for the neglect in funding by the central authorities.

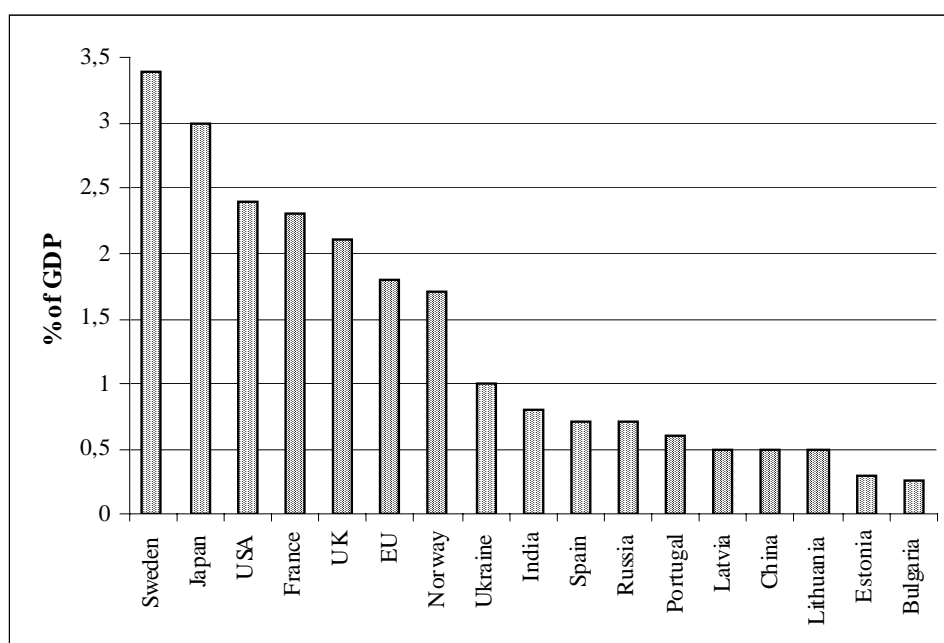
The third large part of the Research and Development (R&D) sector has been the network of applied research institutes and development units belonging to branch ministries or bigger enterprises. Some of these institutes attracted the best researchers in particular technical fields. A good example in this respect was the famous Central Institute for Computer Technology (CICT) with a staff of over 2000. Over the years CICT developed some of the most sophisticated computer systems exported throughout Eastern Europe and the Soviet Union. Bulgaria was probably the biggest producer of computers in the region. After 1990 CICT was dissolved and the majority of its highly qualified staff is no longer engaged in research activities. Some have emigrated to the United States.

The R&D system, which Bulgaria inherited from the communist past, was quite large in size, though rather ineffective. The funding per researcher compared to the OECD countries was low. The dispersion of resources between the universities and the Academy of Sciences did not contribute to either high level of research output or high quality of education. There was a lack of co-ordinated research policy in line with modern requirements.

### Research during the period of transition

The research sector during the past 10 years reflects many of the difficulties of Bulgaria's transition to a free market economy and a civil society. The transition has been marked by political and economic upheavals, including the financial collapse that marked the end of the socialist government early in 1997. The current government (United Democratic Forces), in power since 1997, had the difficult task to restoring the normal functioning of the state institutions and the economy. The stabilisation programme has been quite successful, but it did not focus on the development of R&D. At present only 0.34% of the gross domestic product (GDP) is invested in the publicly funded research sector. For comparison, data for other countries are presented in Figure 2. The overall number of researchers in the country has been reduced by about 20% over the past 10 years (Table 12). The reduction was inevitable since many institutes had been over-staffed.

Figure 2. **Percentage of G.D.P. allocated to research activities in some countries in 1995**



The network of R&D institutes and units belonging to ministries and bigger enterprises was most negatively affected during the past decade. Many of these institutes and industrial R&D laboratories have been closed and a considerable part of the research staff has gone on to the labour market. Currently only the biggest enterprises in the country possess R&D units, though with reduced size and activities.

Table 13. **Number of researchers in Bulgaria**

1990	1991	1992	1993	1994	1995	1996	1997	1998
31 704	29 060	26 598	26 284	25 616	25 557	25 853	25 871	25 192

Source: K. Simeonova (Editor), Analysis of the State and Development of Scientific Research in the Bulgarian Academy of Sciences and the Country 1988-1998, Center for Science Studies and Science History, Bulgarian Academy of Sciences, Sofia, 1999.

## Legislative framework for research activities

Several legislative acts regulate the R&D activities in the country

- Higher Education Act (1995, as amended in 1999);
- Law for the Bulgarian Academy of Science (1991);
- Law for Scientific Titles and Degrees (1973);
- Patent Law (1991),

The Higher Education Act (Art. 62) clearly sets out research as a key responsibility of the HEIs: “Higher schools shall encourage research work and projects in high priority areas”. Article 63 states: “The pursuance of research activities shall be an integral part of the academic staffs’ activities”. The Act further states that payment of the research activities of the HEIs should not be less than 10% of the cost of the teaching and learning process. Such provisions are indicative of a governmental concern that research should form an integral part of the work of HEIs, albeit the implementation of such a policy still leaves a good deal to be desired. As noted above, the Law for the Bulgarian Academy of Sciences defines the principal mission of the Academy and regulates its activities. It provides for autonomy of BAS from state institutions.

The new proposed Law for Promotion of Research Activities defines different mechanisms that would facilitate R&D activities in high technology, the commercialisation of research products, the establishment of technoparks, and other measures. It also provides for state funding in priority research fields.

The existing legislation does not stipulate clear mechanisms for the establishment of a national strategy and priorities in the R&D sector. For a country with the economic capacity of Bulgaria it is necessary to develop procedures for the adoption of coherent and well designed R&D policies so that the limited resources are focussed in areas closely linked to the economic and social development of the country. It is noteworthy how little attention is given to research policy in the MoES’s *Strategy for the Development of Higher Education in Bulgaria* (1999). Research is not listed as one of the “problems”.

## Funding of research

Basic research has been funded mostly through competitive project grants awarded by the National Council for Scientific Research (NCSR), established in 1990, at the MoES. The procedures for funding through open competition are well established. During the past several years, however, and especially as a result of the financial collapse in the country at the end of 1996, the level of funding decreased about five-fold. Currently, NCSR, through its 10 subject panels, distributes the equivalent of approximately USD 500 000 per year for all subject fields. The policy is to finance only a limited number of projects at the level of about USD 10 000 per project. Currently, about 50 research projects are being supported. Some sub-commissions, however, award more grants but with only nominal funding. The competition is open to both Academy of Science personnel as well as to staff in the HEIs. In recent years there has been a decline in interest by researchers in the competition, probably due to the limited resourcing available.

### Basic research in the HEIs

The academic staff of the HEIs now represents 61% of the human capital in the R&D sector in Bulgaria. The higher education institutions in the country traditionally focus their research activities on basic studies. Under a very limited budget, researchers have great difficulty in keeping up with the latest developments in their fields. The supply of scientific journals and books for university libraries has been highly restricted: the budget does not contain specific provisions in this respect. HEIs are forced to seek alternative ways for funding subscriptions, for only a fraction of what is needed. The possibilities for investments are limited, since the earned incomes of the state HEIs have plummeted after the abolition of paid education by recent amendments in the Higher Education Act (1999).<sup>65</sup>

The infrastructure for research in HEIs has not been renewed in most fields, except in laboratories that took part in international research and educational projects. The problem is particularly serious for the technical HEIs, as well as for the natural sciences departments in classical universities. An exception in this respect is the gradual development of a national ICT academic network. These developments have been facilitated through a number of international and national initiatives, co-ordinated by the MoES.

### Applied research in the HEIs

The Bulgarian HEIs have been quite successful in research directed towards development of new products and technologies. Until recently much of the research of the numerous technical universities had been focussed on the development of projects financed by enterprises or technology funds in universities. The decline of Bulgarian manufacturing industry during the past decade resulted in substantial reduction of these activities. Most of the new private enterprises are still not in the position to seriously finance technological developments. On the other hand, foreign investors entering the local economy rely, in most cases, on products and technologies developed in the parent companies abroad. Nevertheless, the traditional links of technical HEIs and the respective industries are still continued. Some institutions have established their own manufacturing or consulting SMEs. The Technical University in Sofia has effectively established a big technopark of SMEs that use the developed infrastructure for applied research.

Another development in the applied research field is the establishment of co-operative links of university researchers with big international companies. In the absence of funding from the national economic structures, the co-operation with foreign companies emerges as an important resource for keeping alive the research activities in many laboratories. In the chemistry departments of HEIs much of the current synthetic work is funded through contracts with foreign chemical or pharmaceutical companies.

The Patent Law of 1991 has stimulated the commercialisation of research products. Under the new legislation the interests of the different stakeholders – HEIs, individual researchers and external companies – can be well represented and balanced.

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<sup>65</sup> According to the MoES, the fact that *all* students now pay (some) fees compensates for this loss of income, but evidence from the HEIs themselves shows that this is not the case and that losses are considerable.

## Issues and Barriers in higher education

- *Problematic relationship between the MoES and higher education institutions*, and lack of a strategic, systematic approach to policy formulation and the development of clear lines of accountability.
- *Quality assurance mechanisms* need support and time in order to function properly.
- *National policy on student numbers* needs review, in consultation with stakeholders. Conditions for students (financial as well as material) place great stress on students and their families, and are an important factor in drop-out and long completion times for degrees.
- *The Strategy for the Development of Higher Education* needs further refinement and supporting policy.
- *Serious under-resourcing*, especially of learning support services such as libraries and ICT facilities for students.
- *Inefficiency in the system*, due to a lack of co-ordination and collaboration among HEIs.
- *Lack of a coherent national policy for the R&D sector*, and lack of budget provisions for the funding of research in line with requirements of recent legislation; insufficient funding of the two research councils of the MoES.
- *Need to take advantage of OECD and EU experience* in technology transfer, management and commercialisation of research, and intellectual property rights.

## Recommendations by Section

### *Equity in access, attainment and achievement.*

Child well-being and the development of their and Bulgaria's future are closely linked. Families with children, rural and minority families are most at risk of being poor, have less access to health services, housing, safe water and sanitation, and are disproportionately subject to social exclusion. Children who are disabled, live in institutions, or are in conflict with the law are among the most vulnerable. A comprehensive child welfare strategy is needed, developed by ministries responsible for family and child welfare (Health, Labour and Social Protection) as well as the MoES and relevant NGOs. This strategy could have the following educational aspects:

- *Set up a national database* consisting of municipal and school-level data on at-risk, drop-out, and drop-in patterns and trends. Once a relatively simple data collection system is set up, municipalities could require schools to report on their at-risk, drop-out (and drop-in) numbers, trends, and reasons, which could then be summarised and reported to the Statistical Information Centre or to the MoES. Databases already created by the EC-Phare 'School for Everyone' Project could be used and expanded.
- *Reformulate and refine* the way enrolment, attendance and absence are measured and recorded.

- *Emphasise drop-out prevention* rather than punishment for non-attendance. Community outreach and child-friendly ‘drop-in’ programmes are more likely to persuade students to stay in school than punitive measures like fines and exclusion, especially since the most common reasons for non-attendance are related to circumstances beyond the student’s control such as poverty, social problems, or an inhospitable atmosphere in the school. For prevention and ‘drop-in’ programmes to succeed, this vicious cycle must be broken.
- *Promote bilingual education for minorities* especially at pre-school and grade 1 levels, and especially for Roma children and others in non-Bulgarian-speaking families. Such programmes already exist in some regions (e.g. Kardzhali, Targoviste) and should be built upon. A Roma specialist has now been appointed in the MoES (2002) but more are needed in those regions with a significant Roma population such as Sliven where the drop-out rate is 19%. Given the size and problems of the Roma population, it is unacceptable that their educational interests are not given the same MoES attention as those of Turkish or Jewish minorities. The reality still is that out of 100 Roma students in first grade, only five (three girls and two boys) have a slim chance to complete secondary schooling, and that many physically and mentally healthy Roma children are channelled into so-called “relief schools” for mentally and physically handicapped children.<sup>66</sup>
- *Clarify the role of NGOs in medium- and long-term education renewal policy.* Many education reform efforts are currently funded and run as pilot projects by NGOs, with little thought to their long-term expansion, sustainability, or links with MoES policy.
- *Improve the relevance of curricula to employment opportunities,* especially in general and vocational secondary schooling where unemployment among graduates is high.
- *Widen the definition of ‘special educational needs’* to reflect a less medical and more educational view of SEN; review and clarify the Law as it relates to SEN; and ensure educational opportunities for every child in the least restrictive, and most flexible, environment appropriate to his or her needs.

### ***Curriculum, standards and assessment***

- *Continue efforts to slim down curricula* and increase curriculum integration and local, teacher involvement in curriculum development.
- *Ensure that curricula for compulsory, core subjects cater for the whole ability range,* and that standards are set at a level achievable by most.
- *Re-formulate the legal definition of ‘general educational minimum’* to reflect the reality that the majority of school leavers need to be prepared for the world of work rather than for “the next level of schooling”.
- *Ensure that reforms reach the classroom in a coherent manner* and that teachers and school directors receive the necessary in-service training to cope with change.
- *Review and simplify textbook approval and provision procedures* and work with schools to develop a way to subsidise textbooks for needy children or provide them free.

- *Improve the salaries and status of inspectors.* Unless inspectors are respected and adequately paid, they cannot fulfil the key role they must play in reforming Bulgaria's education system.
- *Work with universities towards a single-examination system at the interface between secondary and tertiary education.* Once the new Matura has established itself as a reliable and respected measure of learner achievement, separate university entrance examinations should be phased out.
- *Investigate the decline in student performance in mathematics and science at grade 8 level.* While the recent TIMSS-R results may just be a temporary set-back, they may also be symptomatic of a more serious problem in teaching and learning in primary schools.

### ***Education Personnel***

- *Develop a comprehensive strategic policy on teaching* that addresses the range of interconnected elements which affect the teaching career in a modern society.
- *Reform pre- and in-service policies and structures.* The MoES should take a pro-active role in developing new policies, together with the teacher training institutions and with inspectorates and schools.
- *Give high priority to developing a needs-driven (rather than the present supply-driven) provision of professional development courses.* Co-ordination of all agencies involved, working to an agreed national programme, is needed. There is an impressive number of personnel (about 850 within the inspectorate and the institutes alone) whose potential could be used much more effectively than at present. Their training, salary and status need to be improved. Secondment of experienced teachers on a part-time basis to lead in-service work could also be useful.
- *Allow teachers to receive qualification credits for courses other than those formally provided – e.g., in-service offered by NGOs.*
- *Improve the resourcing and equipment of both pre-service and in-service providers, including the new decentralised locations.*
- *Provide in-service training for school directors, e.g. on whole-school planning, school-based professional development, curriculum development, pupil assessment and inter-active methodologies.*
- *Reconsider the integration of in-service training institutions in the universities.* This may not be the most effective or efficient arrangement for both parties, although close liaison between pre- and in-service providers remains essential.

### ***Early Childhood Development and Education***

- *Widen access to early childhood and pre-school education, especially in poor and rural areas where early contact of a child with trained staff is vital in the early detection of health or social difficulties that are likely to affect that child's development and learning.* While more

children are now attending a preparatory year before entering grade 1, this may come too late for some children where early intervention might have made a significant difference.

- *Ensure that the poorest and most vulnerable families are not excluded* from sending their children to pre-school by the necessity to pay fees (see section on equity, above). Fees are not high in themselves, and local authorities meet most of the cost, but if there are several children in a family with unemployed parents, such fees can be prohibitive. These children are also the most likely to have nutritional and health problems that should be detected as early as possible. Collaboration with the Ministry of Health is essential for ensuring a smooth transition of 3-4 year olds into MoES care.

### ***Vocational Education and Training***

- *Investigate reasons for VET drop-out*, and help VET schools to introduce drop-out prevention programmes and ensure that all students leave school with employable skills.
- *Improve efficiency in the VET system* by a carefully worked out programme of optimisation. Because this inevitably means a reduction in the teaching force and closure of non-viable schools, it is important to ensure that stakeholders and social partners are consulted in drawing up optimisation criteria, and that these criteria are made known to the general public. Strengthen and train the staff of the National Agency (NAVET) so that it can play a key role in improving efficiency and quality in VET in Bulgaria. Its tasks are highly demanding.
- *Ensure that every inspectorate has at least one specialist VET inspector* capable of providing VET teachers with appropriate support.
- *Review VET curricula and timetables to ensure that students keep a balance* between general and VET-specific studies throughout their studies, so that they are not disadvantaged when they take university entrance examinations.
- *Introduce and expand* the use of computer-based and other forms of open and distance learning, especially for adults and for long-term unemployed youth.

### ***Higher Education and Research***

- *Restructure MoES's role* regarding HE, reducing its bureaucratic and regulatory role but strengthening its strategic capacity and its powers to hold HEIs accountable for the quality of the education they provide. In particular, a vastly improved data information system is needed, as well as more sophisticated skills in policy formulation and implementation.
- *Support the accreditation and quality assurance mechanisms* by a better understanding of the dynamics of these processes and more realistic time-scales and conditions.
- *New competitive funding schemes* should be beneficial for the quality of teaching and learning. However, too much may be expected from the limited resources available, and from the ability of HEIs to make the schemes work.

- *Revisit the Strategy for the Development of Higher Education* and, with the help of stakeholders, create a comprehensive policy document that has a built-in monitoring process to make sure it is regularly reviewed and updated.
- *Create a more coherent policy for student participation* in higher education: student numbers, student support and financing, learning and study patterns, issues affecting part-time students, and the promotion of post-graduate study.
- *Address the issues of the unbalanced age structure*, the prescriptive and unproductive regulations on teaching hours, and improvement of staff salaries in line with more affordable staff/student ratios and the injection of ‘new blood’ into the system.
- *Take a pro-active approach towards greater co-ordination and rationalisation* of the HE system, through mergers and networking, and – where necessary – closure of inefficient institutions.
- *Establish a coherent national policy for the R&D sector*, which identifies priorities and maximises the potential for research in Bulgaria. This would involve special budget provisions for the funding of research to reach the levels envisaged by legislation, development of national criteria for the evaluation of research activities, and a substantial increase of the funding for the research councils of the MoES.

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