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CENTRE FOR CO-OPERATION WITH NON-MEMBERS DIRECTORATE FOR EDUCATION, EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS EDUCATION COMMITTEE

THEMATIC REVIEW OF NATIONAL POLICIES FOR EDUCATION: SERBIA

Stability Pact for South Eastern Europe

Table 1: Task Force on Education

English - Or. Engl

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FOREWORD

This report on education in Serbia has been prepared within the framework of the Centre for Cooperation 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 Serbia, the OECD or the governments of its Member countries.

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SERBIA

General Data

Area: 88 361 sq km

Number of inhabitants: 7 807 000 (1998 provisional)¹. Population growth is negative,

with a birth-rate trend (1998 provisional) of -2.9 %. Age structure: approximately 30 % under 24 years old; life expectancy

65 for men and 72 years for women.

Population density: 95 per sq. km. Urban/rural distribution: 65 % urban, 35 % rural.

Ethnic composition: 80 % Serb; 4.4 % Hungarian; 2.3 % Muslim; 1.5 % Montenegrin;

 $1\mbox{-}2\,\%$ Croat; $1.2\,\%$ Roma (latest census, 1991: no recent data available; see footnote). Other small minorities include

Bulgarians, Romanians, Slovaks and Ruthenians.

Languages: Serbian (95 %), Albanian (5 %). Minority language rights in

education are protected by the Federal Constitution.

GDP (1998): 16.4m. US\$ GDP per capita \$1,793 US\$ 43 % lower than in 1990.

In terms of purchasing power parity, US\$ 3500.

Agriculture 20 %; industry 50 %; trade and retail 30 %.

Percentage of GDP on education: 3.2 % in 1999, excluding pre-

primary.

Inflation rate: 42 % (1999).

Unemployment: 731 400 at end 2000, about 37 % of working population. About

13 % are long-term unemployed (*i.e.*, for 10 years or longer). Serbia's total (active) work force was nearly 2 million (end

2000)).

Levels of education

governance:

The new Ministry of Education and Science was constituted on 20 February 2001. At the time of the OECD visit in January 2001, restructuring was underway and no new structure had yet been agreed upon. The issue of the administration structure for the

Vojvodina also needs to be settled.

¹ A census was planned for March 2001 but has been postponed.

Introduction and Context

In the aftermath of the last decade with its government and its wars the present day democratically elected Serbian government faces some difficult issues. The territorial future of Kosovo remains unsolved, there is a secessionist movement in South Serbia and the confederation with Montenegro is being questioned. The economy faces what one of our interlocutors called "a double burden", namely the former socialist system on the one hand and the politics of the last decade on the other. The economy has also suffered from a lack of investment in the last decade as well as from the damage caused by the war and the NATO bombing.

The unemployment rate is very high: 37 % (some 730 000) of the working-age population, plus another estimated 25 % "redundant" labour force (some 800 000 technically employed, but not working); yet only 0.4 % of the GDP is available for unemployment benefits. Fifty per cent of the unemployed are under 30 years old. More than 1 million people are engaged in the shadow economy which represents more than 40 % of the GDP. The people have unrealistic expectations of an improvement in their living standards in a short time.

Organised crime and corruption are pressing issues that need strong measures: "The problems linked to the emergence and growth of organised crime and corruption in Serbia can be resolved with the influx of financial resources and expert know-how, that is by introducing systemic stability as the basic precondition for the introduction of effective mechanisms to control corruption. Such financial resources and expert know-how are vital in order to achieve regional stability in South-eastern Europe."

As a consequence of the wars in the past decade Serbia has to deal with some 800 000 refugees and IDPs (internally displaced persons), some of whom want to return to their places of origin. On the other hand for many there will probably be no way to return and they will have to be integrated into Serbian society. Some 35 000 of them are still in collective centres living under very difficult circumstances.

Because of the political situation in the past decade and because of the sanctions, Serbian society was increasingly cut off from the outside world. This is true for all areas and has of course its especially negative effects in the field of education. As part of the process of political reform and normalisation of external relationships, links with the outside world need to be newly established.

The Education System

Some key facts about the education system:³

Age at which compulsory

education starts:

7.

Age at which compulsory

education ends:

15 (compulsory education is 8 years).

Structure of education system:

(see also chart): pre-primary (up to age 7), primary, lower level 4 years, upper level 4 years; secondary education 4

² United Nations Development Programme, Federal Republic of Yugoslavia/Republic of Serbia: Vulnerability Trends & Perceptions. Suspended Transition. Background report. "0" edition (Serbia) of the Early Warning System for FRY, January 2001, page 6.

³ Education in Serbia 1999/2000, prepared by Victor Majic, Petnica Science Centre, Valjevo, Yugoslavia.

years, both general (grammar schools, gymnasiums), art schools, and various types of vocational schools. There are two main types of tertiary education – colleges (2-3 years) including art academies and university (4-6 years). More than 75% of students who continue beyond compulsory education enter vocational education; the remaining 25 % enter general secondary.

Examination/transition points:

Entrance exam at the end of compulsory education for entry to secondary education; Matura at the end of general secondary education; bridging exam at end of vocational secondary education; entrance exam for university entry.

Higher education:

There are five universities in Serbia with about 208 000 students enrolled (2000/01). In 1998, the distinction between full-time and part-time was abolished, and a new classification was introduced, based on source of student financing: "budget-finance" students (full- or part-time) and fee-paying students, *i.e.*, students who pay the full cost of their education (full- or part-time).

Schooling expectancy for a 5-year-old child in 1999 is about 13 years. Pupil:teacher ratios (P:TR) are as follows (2000):

Primary education: 16.7 : 1 Secondary education: 15.77 : 1

Tertiary education: 16.2:1 overall (university: 15.72:1; non-university: 24.15:1).

Table 1: Teachers (2001)

Level	No. of teachers	Percentage of women
Primary education (1-8)	44 064	61 %
Secondary education	24 603	53 %
Tertiary education	9 561	40 %
Total	78 228	

Source: Institute of Psychology, Belgrade.

Differences among cities and rural areas are significant in most education indicators, especially in the rate of students who leave primary or secondary education.

School facilities (buildings, equipment, libraries) are in poor condition. Out of about 5 500 school buildings, 25 % are over 60 years old. More than 55 % of buildings need partial or complete reconstruction. Moreover, the typical architecture of school buildings is inefficient in terms of heating and optimum use of space (large hallways but cramped classrooms; concrete construction; poor insulation; ill-fitting windows). According to the MoES, 50 % of schools lack even basic furniture such as desks and chairs.

Statistical Data⁴

About 165 000 children under 7 were in *pre-primary* education in 1999/2000. This represented a considerable increase since 1993/1994, when enrolment was 132 000, but there had previously been a sharp decline since the beginning of the 1990s. In 1999/2000 there were 1 661 state/public kindergartens.

Table 2 shows statistics of basic education, covering children between 8 and 14.

Table 2: Basic Education

School Year	N° of Schools			N° of Pupils		
	State	Private	Total	lower grades 1-4	higher grades 5-8	
1999/2000	3 616	0	731 427	350 819	380 608	
1995/1996	3 626	0	794 664	386 761	407 903	

Source: Federal Statistical Office.

In 1999/2000 there were $1\,443$ eight grade – full primary schools – (2A level ISCED). Other school units may have four or six grade classes only.

According to the Ministry of Education and Sport (MoES) report (Education in Statistics, Belgrade 2000) there were in 1999/2000 1 239 central schools with several units/branches, in total 3 626 schools. These figures do not include special education schools (227 special schools, with 937 classes, according to the MoES, 2000). Several mainstream schools also have students with special needs. In 1999, 242 primary schools were damaged by NATO bombing. Table 3 shows the secondary level with about 330 000 students with the great majority in vocational education.

Table 3: Upper Secondary Education

School Year	N° of Schools		N° of Students		
•	State	Private	Total	General ed.	VET
1999/2000	473	2	332 559	80 643	251 916
1995/1996	466	0	318 809	71 426	247 383

Source: Federal Statistical Office.

Table 4 shows the number of students completing various levels of education in 1991, 1995 and 1999.

Instructional time in Serbian schools is well below international standards, particularly in the initial primary grades. In grades 1 and 2, students attend for just 18 hours per week (576 hours per school year), and some experimental schools offer even less (11.5 hours per week or 368 hours per school year). This is far lower than the OECD average of more than 800 hours⁵ and should be increased significantly, especially since children enter school late (at age 7 rather than 6) and learning capacity between the ages of 7 and 10 is at its height. Since average class sizes are small by international standards and teachers' working hours

⁴ These are enrolment data, but it is difficult to determine what proportion of the relevant age groups they represent because of the massive fluctuations in population since the last census (1991). In 1989, for SFRY in general, coverage was said to be 95% for 8-year primary; 80% for 4-year secondary, and 19% for higher education.

⁵ Education at a Glance: 2001. OECD.

are not high (single-subject teaching starts in grade 5), it would seem important to ensure that instructional time for students is increased significantly.

Table 4: School Leavers and Graduates

ISCED levels	11	2^2	3^3	5	-
1991	99 934	96 437	68 765	15 140	
1995	99 943	95 415	73 516	15 194	
1999	92 501	97 998	82 546	15 607	

Source: Federal Statistical Office.

Notes:

- 1. First grade of compulsory school (four years of schooling)
- 2. Second grade (eight years of schooling-basic/primary education)
- 3. Upper secondary.

The team accepts that a sizeable number of primary schools (more than 2 000) have fewer than 50 students, and that most of these are in small rural communities and offer only the first four years of primary education, often in multi-grade teaching, which is highly demanding for teachers (while generally beneficial for children). Nevertheless, it appears that schools and students could work more effectively than they do at present.

Legal and policy framework

A complete list of all current Laws and major Regulations applicable to education is found in Annex 1 to this report.

It is expected that a number of important changes will be passed at the September 2001 Assembly with immediate effect. In spring 2002 more substantial legislative changes pertaining to primary and secondary education in Serbia will be prepared by the 6 strategic expert teams which are currently being formed by the MoES (decentralisation, quality monitoring and assurance, school system structure, democratisation of education content and governance, minority education, and vocational education and training). The main objectives of these changes are:

- Stronger responsibility of local communities, and devolution of power from the Ministry of Education and Sports and the Republic Administration;
- More significant role of stakeholders in the education process (teachers, parents, municipalities) concerning school management;
- Separation of functions of governance and professional pedagogical supervision, to emphasise the educational function of schools;
- regulation of in-service teacher training.

⁶ Statistical data from CEPS, Ljubljana, (January 2001) indicate that there are 2 008 primary schools with fewer than 50 students; there are 491 four-year primary schools with a single teacher for all four grades, and an average of 11 students per school. Some multi-grade teaching occurs in 60% of primary schools in Serbia.

The following are among the more important changes expected by 2002:

- School Boards consisting of nine members three representatives each of School Council,
 Parents Council, and local authorities (for primary schools and gymnasiums); or of the
 Ministry (three representatives of secondary vocational schools).
- The Directors (Heads) of some schools will be elected by the School Board, on nomination by the School Council. Selection remains subject to approval by the Minister of Education.
- More precise determination of the role of supervisors (management supervision) and school inspectors (professional/pedagogical supervision).
- School Boards to manage any non-budgetary income that is collected into the School Fund (e.g. through donors' assistance, sponsorships, profit made by commercial activities, membership fees etc.).
- Ministry's right to revoke legal documents if it has been proven that they were issued without proper authorisation.
- Professional development of the teaching staff will be regulated, publicised and offered in a much wider scale.

In addition, a new law has been proposed to give universities their autonomy back. This is seen as a first step but other steps have to be taken to tackle the above mentioned problems of which the ministry is well aware. One reason for this awareness is that the many of the people working in the ministry were personally affected by opposing the introduction of the 1998 Law which stripped the universities of their autonomy.

Education Forum (Obrazovni Forum)

A number of organisations, including NGOs, are involved in the discussion and development of an education strategy for Serbia. One of these, the Education Forum (see above), is an independent think tank whose aim is to analyse the current state of education in Serbia, as well as to investigate the perspectives and modalities of its future development. The Forum brings together experts in various fields dedicated to the modernisation of education in Serbia, as well as to reform.

The goal of the Forum is to "contribute to the planning and practical implementation of an education system that will be able to meet a variety of societal and individual needs that will emerge during the future development of the country". Its central tenet is that a high quality system of education represents the keystone of successful and stable economic and social transition, and that as such it constitutes the necessary precursor that will enable Serbia to join European and global integration processes. The current MoES leadership maintains contacts with the Forum, as well as with a number of other interest groups and stakeholders, as an important part of education policy development and reform.

209.4

Education finance⁷

Total Serbia

The financing formula introduced under the former Government remains in force, although both Serbia and Montenegro propose some decentralisation of financing in the future. The FRY budget for education in Serbia declined sharply during the decade of the 1990s. The decline is especially pronounced in comparing Republic expenditures on education in 1998 and 2000; they declined from \$621 million or about 3.8 % of GDP⁸ in 1998 to \$209 million, or 2.3 % of GDP in 2000. The central budget predominantly finances the salaries and social benefits of teachers and other school staff; as well as facilities construction and maintenance, educational equipment and materials, and operations and maintenance for university faculties. In principle, the municipalities are responsible for financing all school construction, school maintenance, utilities and heating, and provision of furniture, educational equipment and educational materials for primary and secondary schools, but they lack the resources to do so. In some cases, the Republic budget also helps to finance these expenditures, although the procedure for selecting schools and municipalities to receive this financing has lacked transparency and objectivity. For higher education in Serbia, there are major expenditures in several poorly defined categories of "special expenditures", which together account for almost as much as total salaries of higher education staff. Funds from the Republic budget finance 76.4 % of total expenditures for education in Serbia.

Secondary Primary Higher Total Serbia¹⁰ salaries 80.8 37.4 34.7 152.9 educational materials 6.8 3.9 4.7 15.4 Administration 0.7 0.1 0.8 Stipends and other 0.0 40.3 6.2 34.1

73.6

Table 5: Republic Expenditures on Education by Level (US\$ millions)

Source: World Bank, 2001, based on figures supplied by the Education Forum.

135.8

Municipalities are responsible for financing the "material costs" of primary and secondary schools, comprising construction, furniture, educational equipment and materials, maintenance, heat, water, and electricity. The expenditures of the municipalities on education vary by needs in each local area, but account for a surprisingly small share of municipality expenditures: the amount spent on education amounts to just 10 % of total municipal expenditures. This is a much lower share of local government expenditures than in many OECD countries.

There is no doubt that a major injection of resources is needed within the next year if Serbia's school system is to avoid a further breakdown in quality. An expanded share of GDP could be negotiated with the Ministry of Finance as an emergency measure, to boost teachers' salaries in anticipation of the planned review of their public sector employee status.

⁷ This section draws heavily on M. Mertaugh's Federal Republic of Yugoslavia (Serbia and Montenegro), Recovery Needs in the Education Sector Unpublished paper. Washington: World Bank, 2001, pp. 11-12.

⁸ Statistical Data for Background Purposes of OECD Review: Serbia, University of Ljubljana Faculty of Education, Center for Educational Policy Studies (CEPS), January 2001.

⁹ Education, a background paper for the Educational Forum prepared by Mirosinka Dinkić.

¹⁰ Realized Republic Expenditures for 2000, Republic of Serbia

Administration and systemic reform

The new Government is developing policy, governance and strategic reforms across a number of areas. These include reform of the Ministry of Education and Sport, the pre-school and school sector (on which a strategy document, "Strategic Priorities in Pre-schools, Primary and Secondary School Education." has been issued as an agenda setting document by the Education Development and International Co-operation Section of the MoES), higher education and vocational education. The following sections summarise the reform proposals. Reforms are also planned in the areas of teacher education, textbooks information technology and computers.

Re-organisation of the Ministry

The Government plans to reorganise the Ministry with the aim of building an efficient and functional structure, compatible with similar European institutions. A parallel, major aim is to decentralise management and finance of schools to municipal (or school¹²) level, and for the Ministry to focus on standard setting, policy making and quality monitoring.

The proposed reorganisation includes the following changes in the functioning of the Ministry:

- Shifting the emphasis from controlling schools to directing and supporting their performance;
- Development of an information based educational policy;
- Team working with external experts on the development of the strategies for educational system changes and their implementation;
- Intensive and open international co-operation.

It proposes to do this by surveying the current state of the Ministry, establishing new units or departments and training personnel for new tasks within a short time – February –April 2001 (except for the training in the department of educational policy and statistics staff, which is anticipated to take longer).

The OECD team fully supports the aims of this planned reorganisation. The MoES paper suggests that until the finalisation of a broad policy framework, enabling legislation, and an implementation plan occurs in Autumn 2001, the new Ministry structure should remain temporary, with flexible teams, so that a more permanent structure for 2002 onwards can be developed learning from the experience of the developmental process in 2001.

The Strategy Paper also suggests that a project management model be developed, *i.e.* defining all the existing and reform tasks as projects, with a defined task and duration, to enable management and staffing resources to be diverted to emerging priorities as parts of the reform process are implemented in planned phases and stages. Rigid structures early in the reform process could hamper effective change management. The use of a flexible structure and project management techniques should also assist in making the most effective use of the assistance of international organisations, NGOs and donors in an overall planned approach.

¹¹ The following sections draw on this report issued by the Ministry of Education and Sports, Belgrade, 2001.

¹² Discussions are still taking place (June 2001) about which functions will be devolved to which level(s).

Pre-School Primary and Secondary School Education – Policy and Governance Issues, Legal Framework and Policy Objectives

The Ministry of Education and Sport (MoES) has developed three main goals as part of its overall strategy (described in detail in the Strategic Priorities document). They are:

- Establishment of schools as democratically framed institutions fostering democratic education and atmosphere.
- Channelling education towards modern educational goals essential for social and economic
 development, notably towards acquiring the skills of independent learning, critical opinion
 and co-operative problem solving in all areas.
- Linking secondary vocational education and adult education with the future requirements of the economy.

The first of these heralds major changes in governance and a "new way of school managing". The Ministry intends to establish "independent institutions" to deal with the reorganised school system, "school system centres" at the local self-government levels, and to reduce the Ministry's current "interfering" role to a "co-ordinating –directing role". At present the aim is to have the new independent institutions developed through new legal and expert frameworks and an implementation plan established during 2001 and in place by Autumn 2001, in time for actual implementation to occur in 2002.

A key element of the policy and governance reforms proposed are the "activation and reformulation of the role of school councils and initiation of school co-operation with the local community". The Ministry anticipates that this work will be carried out with the assistance of the NGO supporting group in co-operation with local self-government representatives and the MoES.

The Ministry anticipates the following steps:

- Survey of the current state (law and regulations, functioning, identified problems) by expert teams;
- Survey of foreign experience (possible roles of school councils, methods of their selection, ways of functioning and responsibilities);
- Selection of experimental schools for the appointment of new school councils (about 5 % of all schools);
- Six-month follow-up period, evaluation and reporting;
- Recommendations for constituting new school councils;
- Implementation.

It recommends "a short-term project, open for the strategic decision results regarding school system decentralisation, focused on the identification of recommended forms of council selection and performance, rather than on laws and regulations".

The OECD team supports the aims of the "Strategic Priorities" of the MoES and the following suggestions are made for consideration by the new Government: first, the initial creation of a "strategy of educational system goals directed towards democratically framed institutions", for "the (proposed)

independent institutions", for "local self government" and "for school councils" to be developed as a shared vision in genuine partnership with local schools, institutions and communities. The creation of the framework should occur through open and intensive local consultation processes involving all stakeholders – teachers, parents, principals, community organisations, teacher associations and local government – to ensure maximum ownership of both the vision and conceptual aspects and the details of how it will be implemented. A number of phased consultations may be needed as the detail of the total reform package is progressively designed.

Secondly, building into the reform management model as a fundamental principle that management of the reform will be responsive and flexible so that sensible change and adjustment can occur whenever it is required.

Thirdly, the establishment of an enabling legal framework rather than detailed prescriptive legislation and regulations. International experience indicates that highly legislated and structurally managed educational reform often fails, because successful reform requires the individual elements of the reform being developed in harmony with each other, a shared vision and ownership, particularly at the local school or institutional level and sufficient time for new tasks, capacities and behaviours to be learned by individuals and team. A flexible, consultative, continuous improvement approach enables easier, more carefully managed transition from the old to the new.

This will enable agreed strategies to be continuously modified and improved by testing models and systems adopted by the Government and making any necessary changes by administrative instructions. In this way flexibility during the reform process will be retained to enable consolidation of those elements of the reform process which work and the amendment or replacement of those which do not. It is suggested that continuous improvement over a significant period, *e.g.* 3-5 years would allow elements of the reform to be revised yearly, assisted by evaluation received from the proposed independent institutions, local authorities and school councils and the Ministry.

This approach will enable the Ministry to build the reformed education system from its existing base and respond in a timely and flexible way to the views of all stakeholders – thus ensuring ownership of and commitment to the reforms at all levels.

Fourthly, it is suggested that a voluntary process designed to unlock the local energy and creativity which is the hallmark of successful reform be considered. The establishment at the local level of school, school council and local community of partnership arrangements operating within the concept of "democratically framed institutions fostering democratic education and atmosphere" requires special attention in the design of the reforms. Unless the reforms at this level are fully and enthusiastically embraced by principals, teachers and parents, international experience suggests that the reform process will have little effect on school operations and on student learning outcomes unless the reform process specifically allows for teacher "ownership" of the reform. Unless professional development programmes allow for new skills, attributes and understandings to be gained by teachers, the reform will not actually pass through the classroom door, and unless parents and the local community are similarly committed, the hoped for benefits from community support will not occur.

It is recommended that:

Volunteer schools and communities be actively sought for trial of the reform model after the
completion of proposed survey of current laws and regulations, the proposed survey of
international experience and the design of a reform model for local self management, school
councils and community co-operation.

- Allow admission to the trial through submission by volunteer schools on the basis of three
 year strategic and operational plans including targets for school improvement. These plans
 would be assessed and agreed by the MoES with the proposed independent institutions.
- Use the first group of volunteer schools to be part of the development process for refining the chosen reform model and the training of later intakes of volunteers.

In this way the process of reform will be enhanced and accelerated because the volunteer trial schools will be highly committed to the reform process, better able to constructively comment on it because they will have first been through a creative planning process involving the principal, all staff and their communities. For each year of the first three years, an additional intake of volunteer schools could join the reforms based on readiness. An advantage of this approach is that the most able and ready schools who join first can be used to work with the second and third intakes enabling fast and orderly mobilisation.

Changing the Framework

A number of important changes to the existing legal and policy framework are under consideration (see above). To reorganise the school system, however, a new institutional framework is needed that includes newly established independent institutions. With the assistance of international partners, the Government proposes to establish a number of these by the end of 2002. Given the very strong emphasis on local self governance, school councils and co-operation with the local community, it is suggested that the following principles and ideas from international experience be considered.

First, the school should be seen as the key unit for reform and innovation *i.e.* support systems and institutions need to be designed to enable the school to operate as a creative, high performing unit within a broad national policy framework.

Second, in designing control, local self governance management and school self-management responsibilities, care should be taken to ensure that only two levels of decision making and reporting occur *i.e.* for some matters the school might relate to a central body and for others to a local/regional authority but not to both for the same things. Three tiers of administration and reporting creates a middle level of bureaucracy which is an expensive use of resources and reduces both flexibility and responsiveness.

Third, encouragement should be given to collaborative local structures and service centres where expert support can be accessed easily by schools and through which schools can share their experiences in implementing reform with colleagues. Involving schools in the governance of shared service centres can enhance the matching of school needs to services provided.

Reform of the Inspectorate

A key aspect of the reform of the MoES is the Government's proposal for the reform of the Inspectorate. The planned changes to school management will require the role of school inspection to be changed to facilitate democratic school development. The Ministry acknowledges that most of the current inspectors "probably shall be inadequate for this transformation, yet it is but rational to try the re-training of those potentially competent for the new task". The Ministry aims to "forge a new model of school development facilitating experts through the training of selected inspectors along with the elaboration of most suitable forms of training for the future personnel for this job".

The Ministry anticipates the following steps for the project:

- Study of school development facilitating models in other countries, elaboration of experimental training for inspectors;
- Selection of inspectors for the training;
- Training;
- Monitoring the performance of newly trained inspectors;
- Evaluation:
- Elaboration of the model of training for future personnel.

This project is strongly supported. Most countries that have moved from a centralised to a decentralised system have experienced the need to reorient their leaders, particularly at the supervisor level between the school principal and the central or regional components of the Ministry.

In a decentralised system featuring local self government and activated and reformulated school councils, changes in the role of inspectors must take account of the need for complementary changes in the role of principals. The model proposed by the Ministry intends to confer greater freedom, authority and responsibility on school councils and principals than in the past. It is suggested that expanding the project to include a re-examination not only of the role of inspectors – but also of principals – would offer great benefits for the reform process. The Inspectorate should, as proposed, be given a key role in the design, explanation, consultation and marketing of reforms in partnership with principals and the leadership team within each school (*i.e.* all those in positions of responsibility). In this way the reform implementation team can be expanded to include every site. To achieve these roles will require a different division of labour between principals and inspectors.

To free inspectors for these tasks could require principals being formally given some of the existing Inspectorate responsibilities, particularly the key role in assessing and reporting on teachers work and subject standards within their schools. This significant change would free inspectors to become more involved in training and developing principals' personal capacity to implement the reforms within their schools. Inspectors would continue to be responsible for the performance management of principals.

Principals would be expected to focus less on internal administrative roles which would be reallocated and delegated internally. They would instead focus on their core responsibility for implementing the teaching and learning reforms elaborated elsewhere in this report as their top priority. As a consequence of the change in emphasis on the principal's role, the administrative staff in the school would require training in the necessary skills for a locally governed and managed school. In summary, planning for the training and capacity building of inspectors and principals together would substantially enhance the chances of successful implementation of the Government's reforms by mobilising a much larger human resource available for deployment to reform tasks.

It is also recommended that the Ministry's proposed programme for training of directors in their new managerial roles should focus in part on how they can support and add value to the role of inspectors and principals.

Vocational Education Governance Issues¹³

The vocational education and training (VET) system is highly centralised. The Ministry of Education nominates the directors and is responsible for financing, the qualifications provided, curricula and textbooks.

There is a relatively broad network of vocational schools (378 out of the 550 secondary schools in Serbia are vocational) which are mainly concentrated in bigger cities. In fact the bigger the city, the better the chances for provision of quality vocational education and training. Due to many years of underinvestment, vocational schools, in particular those south of Belgrade, are in poor condition. The equipment available for the theoretical and practical work is outdated (computers hardly exist in schools) and occasionally there is a lack of materials for practical training.

The funding of the vocational education and training system has been very low for the past years, due to the economic situation of the country. As finances are unlikely to improve very quickly, it will be necessary to mobilise sources from the private sector. However, there are two possible impediments to that, namely:

- (i) the limited resources of enterprises to contribute to training, and
- (ii) the lack of fund raising skills of the schools to attract money from the private sector.

The Government envisages the linking of secondary vocational education and adult education with the future of the economy as one of its three main goals.

An Educational Task Force which had been developing education policy prior to the change of government has advised the incoming Government of the need for legislation to create an authority and processes to accredit public and private vocational education. Serbia has not yet focussed on the link between secondary education and the labour market. The current priority is to restructure existing industries towards profitability and sustainability but at present there are insufficient funds to accomplish this goal. The Government has recognised the importance of education and training and has actively encouraged professionals to attend international symposia with beneficial outcomes. While it also has a well functioning labour bureau with an impressive network for information gathering and services, it has not yet determined how the links between secondary vocational education, adult vocational education and lifelong learning, and the labour market and economic growth can be strengthened and co-ordinated.

The proposed independent National Board for vocational education and training will have a vital task to make these links and develop a coherent and integrated national vocational training system to support the Government's economic growth policies. The lack of such a system means that existing vocational training is conducted mainly in vocational secondary schools and colleges in a way which is not adjusted to current and future needs. Vocational schools and colleges are not only inefficient because of outdated curricula and lesson plans; they are not in harmony with the needs of the economy and they are totally unprepared to deal with the challenges of privatisation. The skills, attributes and understanding for the level of entrepreneurship needed to work in enterprises of different sizes and types is almost entirely missing. It is recommended therefore that, as a matter of urgency, the Government develop:

- An education and training strategy to support its economic development strategy.

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¹³ Other aspects of Serbia's VET system are discussed in the VET section, below; additional recommendations are given at the end of this report.

- A national accreditation body, which would be linked to the proposed National Board and have responsibility for quality issues including accreditation of vocational education and training to international standards, regardless of whether it is provided in secondary schools, public or private colleges or within industry.
- A formal network of industry advice to Government on future training needs linked to labour bureau market information to reduce the current significant disparity that exists between existing labour market skills and those required for new and emerging industries.
- Reform of vocational curricula, including the exploration of possibilities for collaboration in the use and development of curriculum and learning materials from other countries of the region.
- Development of enterprise education skills and attributes for all students at appropriate stages
 in primary, lower secondary and vocational secondary education to assist in mobilising the
 future workforce to be ready for the new economic environment.

Equity in Access, Attainment and Achievement

Equity: access is not enough

Access to education, and a reasonably fair distribution of resources, are only two aspects of "equity" not only in Serbia but in any national education system. There must also be equity in terms of "school survival" (the number of years children stay in school; drop-out rates), in terms of teaching and learning conditions (quality, content, school friendliness), and in terms of life opportunities resulting from education (jobs, university access).

Provision of schooling, in Serbia's case, is fairly evenly spread across the country, although some areas have suffered more than others from war damage, lack of routine maintenance, internal migration etc. In fact it can be argued that in some respects there is an *over*-supply of education: low pupil:teacher ratios, many small, barely viable schools, and falling birth rates.

School survival is increasingly a problem. While the numbers for primary education (grades 1-8) have declined only slightly between 1990/91 and 1999/00, the large influx of refugees and internally displaced persons (IDPs) from other parts of FRY should have caused those numbers to *rise* rather than decline. The team suspects therefore that the percentage of the compulsory age group actually attending school has dropped significantly; fewer children enter school, and fewer children complete their basic education, than was the case in the past. Thus far, this can only in small part be ascribed to Serbia's negative population growth (-2.9 %), although in future the effects will be felt more acutely.

At secondary (post-grade 8) level, absolute numbers have increased slightly, by 4.3 % between 1995/96 and 1999/00; but average participation in secondary education in OECD countries has risen sharply to 76.3 % of the relevant age group, while participation in Serbia is virtually stagnant. ¹⁴ This will have serious implications for Serbia's labour force, at the very time when the country needs a well qualified workforce for its recovery. Improving transition and retention rates at secondary level would seem a priority.

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¹⁴ M. Mertaugh . (2001) 'Federal Republic of Yugoslavia (Serbia and Montenegro): Recovery Needs in the Education Sector.' Washington: The World Bank, unpublished report, p. 5.

Youth unemployment is a further indication of a mis-match between schooling and the needs of the labour market. Unemployment (2000) stands at 37 % of the total working-age population; 50 % of them are under 30 years old. Job opportunities are few, especially for youngsters with low qualifications. *Access to university* has widened with the introduction of fee-paying students, but at some cost to quality; moreover, many students now enrolled in higher education are there to "fill in time" while they are looking for a job. Non-completion rates are high, and those who do stay take on average far longer than the normal time to complete their degrees.

As in other countries, there is growing evidence of, and concern about, inter-generational transmission of poverty and unemployment; in some families no one has a job, or any hope or expectation of getting one. Low expectations among young people, and despair about their future, contribute to underperformance by students and to increased drop-out rates.

Equity in finance and resources. The Government has acknowledged that the development of new systems of funding is a priority. Recognising the enormous financial difficulties facing the new Government and the problems faced in developing an education master planning database, it is considered that the opportunity should be taken to concurrently plan a new funding system which takes into account equity in both access and quality and which is designed to allow a fair distribution of resources to all levels of schooling while at the same time being inclusive by building in formulae for special needs.

International experience in financial reform indicates that major changes in finance and staffing allocations are very difficult to achieve in a running system because vested interests often make variations in allocations politically sensitive. Reforms now offer a window of opportunity to implement transparent, formula-based funding systems, which build in equity and inclusiveness from the beginning. For example, formula funding could be established with base funding for a particular type of school, taking into account the provisions for staffing, facilities, maintenance and infrastructure common to all schools of that type, according to size. To that base would be added a general per-capita enrolment-based allocation, according to type of school, student enrolment, transport needs etc. A third increment to the base could be indexing for the characteristics of the student population -e.g. taking account of the requirements of schools with high numbers of low-income families, bilingual entitlements, refugees and internally displaced students, and special needs students. Other indices could also be identified, for example linked to students' learning achievement, but these would require sophisticated and reliable forms of measurement that at present are not available.

The development of an equity-based global budget for schools, in which all costs, including teacher salaries, would be covered according to the type of school, its enrolments and other characteristics, would create greater transparency and demonstrable fairness. Although at present there is very limited community capacity to contribute to education costs, such transparency might encourage voluntary contributions by individual parents for specific activities, contributions from local authorities and local industries to support schools, together with other kinds of voluntary in-kind contributions including labour for individual school projects such as grounds improvement, playgrounds, etc. Such an equity based system of funding may also be more sustainable; and, as the economic situation of the country improves, school funding can be enhanced through increasing the base rate, per-capita and indexed allocations – again in a way that is seen by all to be transparent and fair.

Parents already contribute in substantial ways to the cost of education – for example, they pay for private tuition by their children's own teachers in what is referred to as the "grey" economy. It was suggested to the team that if ways could be found to "harness" these *ad hoc* contributions and bring them into the school system, it would increase school budgets considerably, help raise teacher salaries, and combat the inequities and possible corruption that result from the "grey" tutorial market.

Equity for Children with Special Educational Needs (SEN)

The present legal and policy framework for SEN children is weak¹⁵ and practices still reflect the Soviet view of "defectology": a highly centralised, "medical" approach to services for all groups of children and adolescents with special educational needs. Little distinction is made between physically handicapped and mentally disabled, socially or emotionally deprived, psychiatrically or psycho-socially disturbed learners or those with mild learning disabilities such as dyslexia and attention-deficit/hyperactivity disorders.

In SFRY times, few alternatives existed to (often large) institutions. Children were placed in orphanages or "closed" correctional institutions, or in units for children within adult psychiatric hospitals, often on the basis of superficial, prejudiced or faulty diagnoses at a very young age. It is said, for example, that the large majority (as high as 80 %) of all children in special educational needs (SEN) education in Serbia are Roma. It was not possible for the team to verify this claim, but there is undoubtedly a serious issue that cannot be ignored.

After the changes of 1991/92, society in post-communist countries became more sensitive to the needs of SEN children and adolescents. Modern approaches towards social welfare and the empowerment of families (which had for years been stigmatised and blamed for having exceptional children) began to make inroads. Social attitudes in Serbia, however, have been slow to change, partly due to Serbia's increasing isolation during the 1990s.

Yet many more families now face economic, psychological and social difficulties. The trauma of conflict, the rise in poverty, unemployment, suicides, juvenile delinquency, violence towards and by children, alcohol and drug abuse reflect the dark side of Serbia's troubled decade of wars and transition. More children and youngsters are at risk; and the narrowly "medical" approach towards special educational needs must now be replaced by a broader view which accepts that these needs and social disorders require a more inclusive, professional and community-based approach. At the same time, experience in other countries has shown that the ideal of "care in the community" easily slides into "neglect in the community", especially where support services are fragile and resources few. Families in rural or deprived areas, for example, would find it very hard to look after the medical needs of disabled children at home; a certain level of institutional care will, therefore, remain necessary for some time.

Issues and barriers in Special Education

- The debate about mainstreaming children, insofar as their condition allows, in "regular" schools is still only just beginning in Serbia. Public attitudes are not always friendly. Teachers in "regular" schools do not consider themselves sufficiently trained to deal with a variety of learning difficulties, needs and handicaps among their pupils. Pre-service teacher training now includes some work on slow learners, but the quality of these courses varies. Inservice teacher training tends to be directed at teachers already teaching in SEN schools, and rarely at teachers in regular classrooms (where the need is greatest). Little interaction takes place between special and regular schools, or among special and regular teachers.
- The practical ability of schools to provide a suitable environment for SEN students is still very limited. Buildings are old and in poor repair; wheelchair access and appropriate sanitary

¹⁵ The team has been able to find only two regulations pertaining to SEN: one sets out the syllabus for one-year vocational training for children with mild handicaps (1994), and the other pertains to teacher qualifications for teachers in schools for mildly handicapped children (1995).

facilities are still a rarity, even in newly rehabilitated school buildings. Most schools have concrete staircases, narrow doors, high thresholds, narrow toilet cubicles, and other features that are barriers to physical access.

- As for financing and co-ordination, several Ministries (e.g., Ministry of Labour, Health, Social Welfare as well as Education and Sports) share some responsibilities for SEN children and adolescents and their families. This fragmentation hinders co-ordination and competent supervision, financial efficiency, and information sharing. Moreover, the lack of a strong, coherent legal framework aimed at social protection of families with SEN children increases the risk of children "slipping through the net": those in institutions do receive special funding, but the team is not convinced that the same support reaches children who are cared for at home, or those who are struggling to cope in regular classrooms. Resources should be targeted for maximum benefit to children wherever they are being educated; it will be important to scrutinise any new rules or legislation carefully to ensure that this is so.

Equity and Ethnicity

The situation here is complex and politically sensitive, and for the purposes of this report we will highlight only two main issues that affect education, while acknowledging that others exist. In relation to minority groups in Serbia, the first issue is minority-language education; the second is the chronic underenrolment and under-attainment of Roma students.

Minority-language instruction

The Federal Constitution gives all minority-language groups the right to mother-tongue education at all levels of schooling. There are 284 primary and secondary schools in Serbia which deliver the full curriculum to 46 500 students in the Hungarian, Albanian, Romanian, Ruthenian, Slovak and Bulgarian languages, with Serbian as a second language as required by law¹⁶ While the team supports the inclusive spirit of Serbia's language policy, there must be some concern about its affordability, and about the capacity of the system to supply qualified teachers in all languages in every subject. The European Charter for Regional and Minority Languages requires initial minority-language instruction in any region where the minority constitutes at least 20 % of the population; the Constitution of FRY-Serbia calls for minority-language to be provided wherever the population of any particular class exceeds 15 students. Because of the low average class sizes (approx. 16.3 students per teacher), this is entirely fair; but in practice, in many classes minority-language instruction is offered to classes with only four or five (sometimes three) students. Again, the team supports the spirit of the practice, but questions whether it contributes to schools having to work in double or triple shifts to accommodate various language groupings.

Moreover, there is a question about the effectiveness (in terms of maintaining a diverse cultural heritage) in that the minority-language curricula and textbooks are translations of those used in Serbmajority schools. There is little evidence of minority-specific teaching and materials in schools, partly because of the disproportionate costs and partly because teachers are inexperienced in school-based curriculum and materials development.

¹⁶ Figures from Statistical Data for Background Purposes of OECD Review: Serbia. CEPS, Ljubljana, January 2001; and from Evaluation of Elementary Education in the Federal Republic of Yugoslavia, Svetlana Marojević, draft working paper, 2000; cited in M. Mertaugh, unpublished paper, World Bank 2001, p. 6

¹⁷ M. Mertaugh, op.cit. p.6.

Roma

Despite its relatively large size compared with other ethnic minorities (*e.g.*, Romanians and Slovaks), the only linguistic minority that does not have a minority-language programme is Serbia's Roma. The standard response to this question is that there is no agreed orthography for (or indeed version of) the Romany language, and that therefore it is difficult to provide instruction and materials. Nevertheless, there are now a considerable number of books, materials, dictionaries and other publications that could be used, in collaboration with NGOs working throughout the SEE region, perhaps adapted to accommodate the Serb curriculum. The most urgent need for this to happen is in the compulsory grades 1-8, where a serious gap exists that affects education coverage of Serbia as a whole.

Of the Roma population, 40.7 % are under 14 years old. Statistics available to the team suggest that 75 000 Roma children of compulsory school age are *not* in school; this constitutes roughly 10 % of total enrolments grades 1-8 in Serbia. Most Roma children do not start school at all, start late, or drop out after only one or two years. Only one-third of Roma children who enter school complete primary education. Literacy rates among Roma are much lower than those in the general population; their access to jobs, health care, social services, and housing is severely restricted. Moreover, schools and communities tend to be less than welcoming, causing even more children to withdraw from the education system which they experience as hostile. Because of their social isolation, few Roma children have a command of any of the languages of instruction offered in schools. A large proportion of those who do attend are classified as having "special needs", and relegated to programmes or institutions for learning disabled children, regardless of their own intellectual abilities. The low participation rates among Roma are hardly surprising; but they are unacceptable.

There are now some excellent early-childhood initiatives by NGOs in collaboration with Roma associations, parents, and communities, that show excellent results not only in preparing children for Serbian-language primary school but in encouraging children to stay in school beyond the first grade. Other approaches are to offer grants to schools that attract and retain Roma children; "drop-in" classes for drop-outs, and special training for teachers in lower primary grades to assist children with language difficulties.

Curriculum and Assessment

Before 1990, the Serb educational authorities – through the Ministry of Education, Science and Culture – were responsible for developing and approving the curricula and controlling the whole educational system of the Socialist Republic of Serbia (SRS). At that time, in primary and secondary schools, Serbian and minority languages (Albanian, Hungarian, Romanian, etc.) functioned as parallel mediums of education. This arrangement was based on the Yugoslav constitutional framework of 1974 that included regulations for minority protection, which guaranteed national equality among all the nations of the former SFRY. The educational system, curriculum included, was relatively successful in raising quality and standards. In fact, up to 1989/90 it was an advanced, liberal and Western-oriented educational systems in comparison to other former communist countries.

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¹⁸ Aleksandra Mitrović and Gradimir Zajić, cited in Mertaugh, op.cit., p. 6.

¹⁹ As mentioned previously, the team heard that 80% of all children in special education in Serbia are Roma. It was not possible for the team to verify this claim, but an investigation is needed.

The Current State of the Education and Curriculum Systems

The current education system in Serbia is composed of pre-primary (from 3 to 6/7 years), primary (with two cycles: grade 1 to 4, and 5 to 8), and secondary education (either Gymnasium of 4 years or Vocational Secondary for 3 or 4 years). In the first cycle of the Primary, children are taught in self-contained classes. After the fourth grade, students enter a four years second cycle of primary where different teachers independently teach all subjects.

The curriculum includes mother tongue (Serbian or minority languages), Serbian for minority students, a foreign language (primarily, English, French, German and Russian), mathematics, biology, physics (from the sixth grade), chemistry (from the seventh), social sciences, arts and physical education. The gymnasium curriculum is much like a continuation of the compulsory 8 years education with some additional subjects, as many as 15.

The Quality of the Curriculum

With the exception of pre-primary education (with two alternatives) piloted from 1999 -current curricula are old-fashioned and most still pay tribute to curriculum practices harking back to the seventies or eighties. The curricula were designed and approved by the Ministry in a highly centralised procedure and design with most of the syllabi dating back to the late 1980s or early 1990s. It appears that groups composed mostly of academics (university professors or researchers), some inspectors and a few teachers drafted a first version. There was little or no communication or horizontal co-ordination across the different groups working in different areas of study. Generally, the syllabi were discussed with teachers and other experts and then approved without any major changes. Teachers' participation in the process has been minimal. Subject matter syllabi mostly consist of "lists of content items" without any reference to the real learning process in the classroom, and the curriculum contains only compulsory subjects which must be completely covered in the classroom. Managers, teachers and inspectors all know that it is simply impossible to teach and/or learn all the information the curricula cover. In addition, the curricula offer a narrow variety of learning opportunities and experiences. Even if those appear, they do not encourage personal views and opinions, creative or critical thinking or the development of life skills. There is no choice of subjects for the students. Furthermore, the narrow subject-based approach excludes any interdisciplinary or cross-curricular connections.

As school-based curriculum processes have no tradition in Serbia, teachers continue to look for central management and decision-making in curriculum design and development. It seems that in ten years of totalitarian regime and international isolation, personal and local initiative quite disappeared: there is a chronic lack of enthusiasm and personal commitment for change.

Approach to Teaching and Learning

As in many other countries of the region, the teaching and learning methods are behind the current European trends and developments and do not reflect any of the major evolutions in OECD countries or some of the former transition countries over the last 10 years. They are out-of-date, and the teacher-centred model (the "frontal" and "directive" *ex cathedra* approach, and lecturing) predominates.

Students are not encouraged to express their opinions: debate, discovery, problem solving, classroom interaction, group work, individual or group projects, are rare. Many teachers would like to change, but lack the necessary training to become facilitators for students to learn according to their own interests and rhythm. The result is a lack of student initiative to engage in their own learning and in developing a "school culture".

Another issue is the bias towards gifted students at the expense of the majority. Substantial progress will need to be made for education for all, quality education and equal access to become a reality. Even excellent centres, like the Petnica Science Centre, focus principally on the "best of the best". All these characteristics offer the image of an "elitist" educational philosophy and a system in which exclusion is not seen as a problem. There are of course exceptions, such as the experimental programmes introduced by various local and international institutions. During the Milosevic regime some local organisations, mostly of academics, have played a tremendous role in maintaining relations with the external world, promoting successful models and fostering educational policy and strategic thinking and development for the future (e.g. the Education Forum, the Alternative Academic Educational Network, the Petnica Centre as well as an important part of the academic community).

Textbook Provision and Teaching Aids

In Serbia, textbooks are *not* free-of-charge, and parents must buy them for their children as the state only gives some modest subsidies for a small category of really disadvantaged families. The National Textbook Publishing House is the highest authority in producing and supervising all textbooks and educational materials in the country. In principle, the Ministry is expected to approve textbooks in order for them to be used in the classroom, but the team formed the impression that this does not always happen. The Publishing House selects the authors through rather unclear procedures. Sometimes, a competition is organised in order to appoint a group of authors; on other occasions the Publishing House "invites" a group of authors to write a certain textbook, mostly university professors or researchers who —sometimes — work in co-operation with primary or secondary teachers. A committee made up of 3 to 5 persons, including both teachers and university professors, reviews the text and gives advice before publication. There are quite strict lines of division between selection committee and authors; this is basically a good idea because it limits potential conflicts of interest.

The National Textbook Publishing House is not only unprepared for, but is openly against, alternative textbooks and an open textbook market. The Institute considers that its hegemony on textbook production is more than normal as over time it has been able to cover the market. In the last two or three years, private publishing houses have issued two or three textbooks for mathematics and sciences that have been approved by the Ministry. Even so, the Institute (in league with the inspectors) does not encourage these books.

Although the Publishing House considers its textbooks the best, they are with relatively few exceptions (*e.g.* the textbooks for the first cycle of the primary school), old-fashioned, overloaded with information, encyclopaedic, and unappealing to students. Since the curriculum did not change in the last 10 years textbooks have not changed much, and inspectors, students, teachers and students consider all textbooks for grades 5 to 12 as being mostly "university level" books, sometimes nearer to encyclopaedias than to students' textbooks. In addition, they do not offer any challenging or exciting learning activities for students, nor are they adapted to their interests and to real life needs. Despite these shortcomings, the Publishing House has no short—or long-term strategy for change. The team learned that there is now a plan to create a Textbook Commission that would give "licences" to books that can be provided to and used in schools. Anyone would be free to write a textbook and submit it to the Commission for a check on compatibility with the curriculum and general suitability for use in schools, and if a licence is issued teachers would be free to use it. The National Textbook Publishing House would no longer have a monopoly, but would be on an equal footing with other commercial publishers. The team supports this plan, although care should be taken that books remain affordable for parents, and that unprofitable (small) publishing runs (for example, in minority languages) are not neglected.

Assessment, Examination and Evaluation

Assessment and evaluation in Serbia involve daily marks given to students in the classroom based on oral examinations, some written tests prepared by the teacher, rare testing when inspectors visit schools, entrance exams to the secondary school, the Matura after the secondary ²⁰ and, finally, the entrance exam to the university. Most controversial at present is the secondary school entrance examination, which is in essence a selection exam for varying types of upper secondary schooling. The questions for this exam are set by the MoES, but administration and marking is done within (receiving) schools, who then set their own entry requirements in accordance with the profile of the school and places available. There are some concerns about the fairness and transparency of the selection process, as well as the prevalence of private (paid) after-school tutoring by teachers of their own pupils, which disadvantages poorer youngsters.

Most assessment is "internal", carried out by and in the school. Cases when a group of teachers would decide together on the type and content of a certain assessment are exceptions rather than the rule. In the last ten years there were no base line surveys conducted, so it is difficult to have any reliable data or idea on how well the system is performing. There were no standardised tests applied; as in most of the other countries in the region, there is no independent body or institution that develops and implements nation-wide external evaluation. The Ministry has no special function that is supposed to carry out this task. Generally, the subject inspectors in the Ministry develop the tests or questionnaires for the Matura exam. The format and content of university entrance examinations to (either oral or written) are decided by the faculties. There is a powerful "backwash" effect of university entrance exams on teaching and learning in upper secondary schools, and great pressure on parents to pay teachers privately to prepare their children for these exams. The ethics of this practice are of course questionable; but until the examination system is reformed and teachers receive better salaries, it will be difficult to change.

Because the assessment of student learning is decentralised and teachers are not trained in systematic assessment of learning against agreed standards, very little is known about what students in Serbia really know, understand, and can do. The emphasis in classrooms is on teaching; not on how, and what, children actually *learn*. There is some anecdotal evidence of good performances by high-ability students – for example, in "Olympiads" in various subjects – but only one recent study of actual achievement across the ability range.²¹ The results were disappointing, to say the least.

In this study, a representative sample of 1 300 grade 8 students (who had just been promoted on the basis of end-of-grade-7 exams) were tested on basic "literacy" skills in language, mathematics and science. The results are worrying for a number of reasons. First, the test covered only 25 % of curriculum content, but the majority of students could answer less than half of the (basic) questions. Second, there was a wide divergence between teachers" evaluation of their pupils and the results of the external tests: in the survey, 48 % of the students would have failed outright, 22 while in the school-based promotion exams from grade 7 to grade 8 not one student had failed. Third, teachers gave 36.5 % of these students a mark of 5 (highest) and 31 % a mark of 4, while in the survey not one single student achieved the highest mark, and only a few achieved the second highest. In basic scientific literacy, 53 % of students scored less than 50 % of available points.

Some important conclusions can be drawn from this. First, it is *not necessarily* true that teachers are the best judges of their own pupils' attainment: external evaluation can throw a clearer light. Second, a majority of Serbian children now arrive in grade 8 without basic literacy in language, mathematics and

²⁰ For the past two years, this exam has essentially been abandoned, and students are assessed on course work and project work undertaken in the school itself.

²¹ Professor Nenad Havelka, Faculty of Philosophy, Belgrade, 2000.

^{22 &#}x27;Failure' defined here as getting less than 50% of available points.

science, even though schools assume that "all is well". Third, it is not enough for teachers to simply "deliver the curriculum according to the timetable". Basic skills, which need to be learned by all, are not reflected in teaching programmes; yet it is those skills that enable youngsters to progress in further schooling, find employment, or participate usefully in daily life. The emphasis needs to shift from teaching to learning, and teachers need to have a much better understanding of standards-based, formative assessment in their own classrooms.

Vocational Education: curricula

Many of the above problems also apply to vocational education. Curricula do not prepare young people for work. According to teachers and students, at the end of their studies, young people are not able to perform in the work place. This can be attributed to the fact that, curricula are overburdened (there are approximately 15 subjects in the programme of one school year), too broad (in the sense that they include too many general subjects) and they provide too little opportunity for practical experience. In principle, in the 3-year vocational schools general subjects account for 35-40 % of the whole programme, theoretical subjects linked to the vocational profile account for 21-31 % of the programme and practice and practical instruction for 29-45 %. The corresponding percentages for the four-year vocational schools are 47-53 %, 15-31 % and 16-38 %. However, it seems that in reality the percentage of practical instruction is lower.

On the other hand, vocational profiles are too narrow and lead to over-specialisation of the students who at the end of their studies are destined for work in one or two occupations. In addition, there are clear barriers among different vocational profiles determined by the differentiation of the curricula from one profile to another and the lack of articulation among the curricula of different profiles. This does not permit students to move from one profile to another, thus introducing rigidity into the system.

Future Plans

The Need for Change

Immediately after the September elections and the events of 5 October 2000, the change process gained new dimension and dynamics. At the time of the OECD visit, some models of change were being discussed and promoted, and the *Educational Forum* – which intends to keep its independent status *vis-à-vis* the Ministry – has developed a basis for dialogue and common ideas concerning a possible strategy for the education change.

Key representatives of the Ministry are fully aware of the fact that Serbian education must recover as soon as possible to meet current needs and expectations of the young generation as well as the so-called and undefined "European standards". In such a context, in Serbia, the discussion of school reform is now fully aware that curriculum improvement and change is one of the key elements necessary to meet these challenges. In fact, concerns for curriculum and curriculum standards generate many questions about the learning process and student achievement.

In February 2001, the newly created Ministry of Education and Sport (Ministarstvo Prosvete i Sporta) issued a document called "Strategic Priorities in the Pre-school, Primary and Secondary-school Education". The Strategy highlights some of the main issues and priorities for curriculum development, textbook issues, assessment and evaluation as well as of teacher training for the new curriculum. First, activating teachers' teams in schools on the first steps of curriculum reorganisation and reduction seem to be an important preparation for future curriculum change; second, setting the stage for a new generation of

textbooks (training of textbooks' authors, teachers for their application, and publishers); third, joining the next round of OECD PISA (Programme for International Student Assessment).²³

Overall, there seems to be a consensus that current syllabuses need to be replaced as soon as possible with a more up-to-date curriculum framework and a set of consistent performance standards. Both teachers and students are looking forward to better education for all; however, teachers want textbooks and basic teaching aids while students seek more freedom of choice in curriculum. Both agree that reform is needed but, remembering the Communist "reform", they prefer to use the word "change". This time they would like a change where their real participation and ownership would be valued, rather than a change designed by a small number of experts.

Issues and barriers in Curriculum, Assessment and Standards

- Curriculum development as a participatory process. In Serbia, the current curriculum change is the first sound renewal in the domain in the last 10-20 years. Consequently, there is no appropriate institutional structure or function in or outside the Ministry that can undertake this task; there are no professionals in curriculum design and development, and there is no culture of ongoing curriculum development. It should be noted, however, that the MoES is well aware of these shortcomings and has solicited assistance from the international community.
- Building public awareness. In Serbia there is no clear-cut curriculum policy or mechanism
 that can ensure the ongoing curriculum change process. The change should be undertaken in
 a very short time in order to build up public awareness and confidence in the fact that the
 change process is necessary, effective and successful.
- Top-down attitude of many experts. Because of the situation before the elections and the lack of experience among teachers and other stakeholders, different groups of highly qualified academics tend to believe that curriculum change and educational change in general can be designed by a small number of experts and then implemented in schools by teachers.
- Curriculum coherence and consistency. The curriculum in place in Serbia is mostly a
 collection of subject-based syllabi with little horizontal and vertical coherence. There is no
 systemic consistency within the curriculum for primary, and secondary and specific
 objectives and outcomes of different subjects are not defined, nor is there conceptual and
 structural coherence across different subjects.
- A student-oriented curriculum. Courses are too rigid, overloaded, information- and content-centred. They are too theoretical and there is no room for students' individual practical work, critical thinking and life- oriented learning and questioning attitude. The unattractive and outdated textbooks are a serious obstacle to positive change.
- School-based curriculum and teacher training, school improvement, Climate. Lack of school-based curriculum and school-based curriculum culture. Schools and school staff have no kind of curriculum culture. Local needs, students' interests, and teachers' creativity are not taken into account and, at the same time, there is a lack of exposure of the staff to new methods and procedures.

²³ The international overheads of joining PISA 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.

- Assessment and standards. Currently, in Serbian education there are no standards that can offer the basis for comparison, nor is there a coherent system of monitoring learning outcomes. Among teachers, principals and public servants of the former Ministry there is no awareness of the importance of such data for designing future educational policy and there is no reliable evidence concerning the quality of education in Serbia. There are no common standards or criteria for the school-based marking system; and, consequently, data concerning the results obtained by the students are not reliable, nor are they comparable with the results of other students' school. In addition, assessment and testing are not seen as approaches to improving students' or school performance and effectiveness, nor to monitoring school improvement or to certifying learning outcomes.
- The need for data. A series of baseline surveys for a number of key subjects (for instance mother tongue, mathematics, and sciences) and certain phases of schooling (for example, grades 4 and 8) should be carried out in a relatively short period of time, to offer a clearer picture of why educational change is needed and where and how some changes should start. In addition, training for teachers is needed in order to develop a new culture of marking, and a modern culture of reliable assessment and examination throughout the system.
- Vocational education. Both vocational profiles for which young people get trained and the knowledge and skills that they receive through the present curriculum correspond to an outdated economic and industrial structure. These vocational profiles and the content of vocational education, overall, need to be reviewed taking into account the needs of the newly emerging market economy. However, at this stage there is a lack of expertise in the country on modern techniques for standard setting and development of curricula for vocational education that are responding to the needs of the labour market.

Human Resources

General observations

Serbian teachers have been under a highly politicised regime since the late 1980s. For example, school principals were appointed by the Minister and were thus in the service of the political leadership. This system did not necessarily guarantee that the best managers and educational leaders were selected and, consequently, Serbian teachers have been for a long time under close control not only by their chiefs in schools but also by the government inspection system.

The OECD team found the situation concerning teachers' work was somewhat confusing. First, data are frequently unavailable or unreliable. Second, new legislation had not been adopted and schools continue to function under the old laws but with new intentions and promises. Third, there was no comprehensive policy for education that would outline the main directions and strategies for renewing the education system. There seems to be still rather wide-spread beliefs concerning good schooling that are based on the old paradigm of quantity-driven goodness — achievements in national competitions, international Olympiads and the number of students enrolled in foreign universities. Finally, and most importantly, the salaries of Serbian teachers are relatively much lower than in other countries of the region. The previous high status of teachers has dropped dramatically and many teachers simply have to take additional jobs in order to earn a living for themselves and their families.

In some respects Serbian teachers face the same problems related to their working conditions, challenges and threats as their colleagues in other parts of South Eastern Europe. However, what makes

Serbia particularly interesting and important is its size as country and its influence not only in education in other Serb-populated areas of the SEE but also in political and economical development of the region.

Preparation and training of teachers

There are approximately 112 000 teachers in pre-schools, ²⁴ primary schools, secondary schools and tertiary schools in Serbia. Practically all teachers were prepared in the teacher training system of the previous system. A common characteristic of teacher preparation in Serbia, similarly to other republics in the region, is the predominance of subject knowledge over pedagogic understanding of how to compose lessons that enable pupils to learn and comprehend. Hence, one of the most frequently mentioned needs for reforming the education system is related to teacher training.

Teachers for pre-school are trained in a variety of ways, set out in detail in the section on Early Childhood Education and Care, below.

"Generalist" teachers for elementary classes 1-4 are trained in five relatively new teacher colleges that were set up at higher education level in 1993. Four of these are networked under the University of Belgrade, and one is independent. Training lasts 8 semesters. There are approximately 3 000 students in these colleges, which are just now beginning to produce their first graduates.

Single-subject (specialist) teachers for classes 5-8 and for secondary schools are trained in a wide range of faculties and departments in universities. Duration of the training is 8 semesters (4 for pedagogues). Enrolment totals about 2 800, with approximately 200 students graduating each year. This training is highly decentralised and non-standardised, and diplomas are given by a variety of faculties in various subjects (mathematics, philology etc.) not necessarily specialising in the training of teachers.

Training for teachers of children with special educational needs (SEN) is done at university level ("Faculty of Defectology"); the approach is still heavily medical, focussing on "correcting defects" rather than on the optimum development of the whole child as she or he happens to be. The team heard it said that the Faculty of Defectology is now the "main obstacle to SEN reform" in Serbia. Moreover, teachers trained for SEN tend to remain trapped in separate schools or classes, with little chance to interact with other teachers or participate in in-service activities that might be important to their professional development or indeed to the development of "regular" teachers who will increasingly need to know how to deal with SEN children in mainstream classrooms.

All pre-service teacher training is said to be heavily *content* oriented, focussing on the delivery of the curriculum; there is little or no emphasis on students' *learning*, or on developing an understanding of child psychology or different learning styles suitable for students of varying personalities or levels of ability.

Typically, trainee teachers first obtain a university degree or teaching certificate in their chosen subject. However, these study programmes do not normally include practical training in schools. In some cases, brief introductions are given to the topics of educational psychology, child development and teaching. Issues such as curriculum planning, learning assessment, or social psychology or special educational needs are not included in these courses. The present pre-service training system in Serbia does not prepare teachers adequately for their work in schools and classrooms.

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²⁴ Teacher pre- and in-service for pre-primary education (ages 3-7) is discussed in the section 'Early Childhood Education and Care', below.

The problem is made worse by the lack of systematic organisation in in-service teacher training. Despite comments from teachers saying that they have several opportunities to attend professional teacher training workshops and training, there is a lack of coherence and relevance in in-service training, certainly in terms of the real needs and requirements of reform. Furthermore, the availability of such training is often limited to the upgrading of knowledge and skills of foreign language teachers, and class teachers teaching in the early grades of elementary school.

Petnica Science Centre near Belgrade is one of the exceptions in this. This centre provides inservice training courses for small groups of teachers in foreign languages, information technology, science education, cultural studies, geography and the Internet in education, among other courses. Some of these courses are international programmes. Within the premises of this Centre there is the only functioning Teacher Resource Centre in Serbia. Teachers from throughout the Republic attend the courses organised in Petnica Science Centre. At the same time, Petnica Science Centre serves as a parallel-to-school learning arena for students.

Teachers in vocational schools

Teachers in vocational education (as in the rest of the education system) are seriously under-paid. This not only creates dissatisfaction and lack of motivation among teachers but it also endangers their social status. They also lack training and exposure to modern teaching and learning methods. In addition, controls are exerted by the Inspectorate on teachers for the way they teach in the classroom. As a result, the best teachers are leaving the profession for more rewarding occupations. The improvement of the financial conditions for teachers and also the increase of their motivation through training in new teaching and learning methods, their involvement in the development of new curricula, and the improvement of their social status will be pre-requisites for any further steps in education reform.

There is already a shortage of qualified teachers with knowledge of new technologies, foreign languages and other areas in demand such as management. This shortage is expected to increase in the future taking into account the big demand for skills in these fields.

Working conditions

There is a striking disparity in Serbia between what can be called good schools and those in very poor condition. Obviously, the physical conditions in which teachers deliver their daily lessons play an important role in overall quality of education. Most schools in urban areas function in two, three or even four shifts and with over-crowded classes. In general, educational facilities are in poor condition or are lacking. In addition, the salary level of those in the teaching profession is so low that it has led to a decreasing social status and morale in schools.

Lack of capacity

Due to returning refugees and refugees from other parts of South East Europe, schools in Serbia are heavily over-crowded, especially in Belgrade and other urban areas. Some of the suburbs of Belgrade are growing so fast at the moment that one single primary school has to fulfil the educational needs of the catchment area of what normally is done by four schools. Obviously, this pressure on school places leads to multi-shift functioning, shortening the lessons from 45 minutes to 40 or even less in order to maintain at least a minimum level of schooling. There is also evidence of some schools (particularly the more prestigious ones) selling places above the regulatory maximum 30 pupils per class. The incentive to do this

is based on the current funding mechanism that is by class. The MoES intends to take measures to stop this practice in the 2001/2 school year.

More importantly, lack of appropriate school space and classrooms has led to increasing class numbers in many schools. Instead of working in classes of 25 to 30 pupils many teachers have over 40 and sometimes 50 students in their classes. Unfortunately, there are no accurate statistics on this but according to informal reports it appears to be typical situation in many urban schools.

Large classes have other consequences for quality of teaching and learning. One of these is the emergence of parallel semi-private tuition systems for those students who can afford to pay for additional lessons. In large classes students and parents feel that they do not have opportunities to learn and understand and, therefore, they hire private teachers to teach them properly after normal school hours. Many teachers working in schools also have private students to top-up their salaries and help the students to achieve their goals. In a way this is a vicious circle: the fewer opportunities there are in regular schools for students to learn, the more markets exist for private tuition.

Another issue concerns the overloaded curriculum. The curriculum that is in use in Serbian schools is a heritage of the socialist era and thus has all the peculiarities of the previous party/state ideological system. All of the teachers seen by the team emphasised that the over-loaded teaching programmes and heavy focus on mathematics and natural sciences are the biggest single problems in Serbian schools today. This forces teachers to deliver information and facts to students without providing them with opportunities to discuss, reflect or critically review the knowledge they are supposed to learn. An inspection system that still functions primarily as a control mechanism is a formidable regulative threat for teachers to do anything that goes beyond the official curriculum.

Salary and employment

As is the case in other SEE countries, it goes without saying that the level of financial compensation for teachers is too low in Serbia. At the time of the OECD mission the fixed salary of teachers was DM 66 (USD \$365 per year) while the minimum amount for covering basic only food and housing is 300 DM, and it is often paid with delays. Average net salaries of teachers and other workers in the education sector in Serbia were 18 % below the public-sector average in 2000, when a teacher earned less than 10 % of what he or she was making in 1990. Amazingly, there seems to be no major attrition to other professions. However, due to the opening of Serbia to the international community there will be more opportunities for foreign language teachers, computer specialists and other teachers who are able to work in international circumstances. Hence, in the near future, if the political development is towards opening and democratisation, many teachers are expected to leave their professions for better salaries and more comfortable working conditions creating the possibility of a serious brain drain from the profession.

Control, authority and responsibility

There is very little autonomy or local management at the level of schools, particularly in the teaching field. The curriculum, regulations related to study programmes, and the control-type of inspection create a system in which teachers' work is almost totally externally regulated. Because this culture of control has a long history in Federation of Yugoslavia, it is difficult for most of teachers to imagine a situation in which they had some authority over planning and deciding what to do in their schools.

As the Minister appointed school principals, they were seen, therefore, as controllers of order for the central authorities. The principal was not an educational leader but a manager of order and work. At present, most of the school principals of that era still work in schools, and this creates some tension within

the schools and among their staffs. Under that arrangement teachers had no authority, and no possibilities to participate in decision-making. Their responsibility in school was limited to coverage of study programmes and filling in the lesson plans and reports.

Disparity between good and poor schools

Quality of schooling is not evenly distributed in Serbia. Good schools are good by international standards while poor schools are next to impossible settings for proper learning. At the time of the OECD visit, little data existed on the physical infrastructure. Based on the team's observations, many schools had broken windows, inappropriate heating and sanitation facilities and out-dated furniture and equipment. Disparity in terms of infrastructure and facilities has other consequences as well. So-called "good" teachers move from poorer schools to the better ones, and thus there is a "the rich get richer and the poor get poorer" syndrome. There is also a remarkable mobility among the students as they look for better learning opportunities, especially in upper secondary schools.

Issues and barriers in Human Resources

- Salaries and professional status are low. Teachers' salaries in Serbia are relatively lower in comparison to their colleagues in other parts of the region. Low salaries gradually lead to decreasing professional status in the labour market. Most of the teachers, especially in lower educational levels of the system need additional income in order to make a proper living. In some cases the teaching profession is only a minor source of income. The multi-shift school system actually makes it easier for many teachers to have other occupations. Naturally, the quality of teaching and other duties in schools are not improved under these circumstances.
- Pre-service training is weak. Some Serb experts commented that "the initial teacher training system is practically non-existent". As noted above, the emphasis on educational and practical pedagogical studies is very weak in pre-service training programmes; the entire Serbian teacher training system is not harmonised; and standards for the professional training of teachers are lacking. There is a huge disparity between the theoretical content of subjects and pedagogical skills training in the university faculties and teacher training institutions. Pre-service training of vocational teachers is particularly unsatisfactory, in that few vocational teachers receive adequate training in teaching methodology and didactics.
- In-service training is not in accord with reform needs. Teacher in-service training is not aligned to the needs of the changing education system. Several agencies are providing teacher in-service training courses and workshops while the government is unable to deliver these services to the teachers. There is the danger that when the intensity of teacher in-service training grows and more external agencies penetrate into the schools, the situation will become even more confusing and chaotic. As a result, there may be a huge number of isolated and loosely connected initiatives that are not able to help the schools but only provide temporary assistance to individuals. It is important there be a holistic policy with clear priorities that will guide teacher development initiatives. There should be an increasing focus on whole school development as well as the professional development of individual teachers.
- Local decision-making opportunities are inadequate. Teachers, students and parents have little opportunity to participate in decision-making concerning their school. For historical reasons it is sometimes difficult for the individuals to see how they could be involved. Many

teachers seemed to welcome more choice in their work concerning curriculum and teaching arrangements. It was also reported that schools as communities should have a more active role in assessing the achievements of pupils and the quality of teaching. Teachers also need to be much more aware of the different learning styles of pupils, and shift their main focus from "delivering the curriculum" to ensuring that their pupils do, in fact, *learn* and develop basic competence to the best of their ability.

University teachers deal with huge numbers of students. Universities faced several problems during the 1990s due to political reasons culminating in the new University Law of 1998 which forced several professors to leave their faculties. From that time many of these professors began to work in parallel institutions and networks, such as the Alternative Academic Educational Network (AAEN). As the number of university students has started to increase, so has the size of "courses" or "classes", and generally speaking, professors and university lectures are working with groups that are too large to make teaching effective. Supervision and guidance are practically impossible, especially since the number of students forces lecturers into presentation-recitation modes of teaching.

Early Childhood Education and Care

According to data available to the team, about 165 000 children under 7 were in pre-primary education in 1999/2000. This represents a considerable increase since 1993/1994, when enrolment was 132 000, but there had previously been a sharp decline since the beginning of the 1990s. In 1999/2000 there were 1 661 state/public kindergartens.

Regulation, Organisation and Access

Pre-school education is regulated under the Social Child Care Act. Under this Act, municipal authorities can organise education and health care for pre-school children within their geographic jurisdictions and cover the expenses for children from low income families who are educated in pre-school institutions. The budget of the Republic provides funds for pre-school and for children without parental care, emotionally or mentally disturbed children and children who have to be hospitalised for a long time.

Aspects of pre-school teaching and education pertaining to establishing and carrying out the functions of pre-school institutions are regulated by a series of legislative "normatives" based on the Social Child Care Act. Conditions that must be met – premises, equipment, the number and type of employees, the numbers of children in teaching groups etc. – are agreed to by the Social, Health and Education ministries. Municipal authorities have responsibility to verify compliance with the requirements before an institution can open. Pre-school education is provided in Hungarian, Slovakian, Romanian, Ruthenian and Albanian, as well as bi-lingually with Serbian.

However, no instruction is offered in the Roman language, a barrier to Roma participation that has been identified earlier in this report (see Equity and Ethnicity: Roma). There are some small-scale but excellent NGO initiatives for Roma children between 3 and7 years old that work with families on health care, family participation and school-readiness for Roma children. Follow-up studies indicate that 100 % of Roma children attending one such programme passed the school entry test; 97.3 % were competent in the Serbian language (compared with 33.3 % among other Roma entrants); and nearly all (99.8 %)

completed the first year, compared with 40 % of the others.²⁵ This indicates strongly that early-childhood, comprehensive work with families with young children pays off handsomely.

Private pre-school institutions are permitted, although they receive no funding from the state or municipality. While they can establish their own programmes of activity, MoES endorsement is required. There are no data available on private providers and their work is not supervised regularly, but the current economic conditions provide an incentive for them to register under one of the related provisions, for example as a baby-sitting agency or a pre-school institution which organises foreign language courses rather than as a private nursery or kindergarten.

Pre-school institutions provide day care and education for children from age 1 to 7 through programmes for 1-3 year olds, and 3-7 year olds. Pre-school programmes designed to prepare children for school may be provided for 6 year olds. There is considerable flexibility in whether a pre-school provides for only one age group or the whole age range – and sometimes space for other children's activities as well. Similarly the one pre-school institution may provide any or all of whole day (up to 11 hours), half day, short stays or occasional attendance. Three-hour programmes of teaching and education are provided for children in hospitals and in pre-school institutions for groups of children with special needs because of physical, emotional or intellectual difficulties.

In addition to the predominant pattern of full day and half day programmes in pre-school institutions, a wide range of other education services exist for pre-school for 6 year old children in rural areas; playgroups of children aged 3-7 years of age and their parents or other adults; clubs for children aged 3-7; workshops in various arts and in ecology for different age ranges between 3-7/10 years; and groups of 3-7 year olds learning foreign languages. Recreation centres, comprising separate buildings for children's holidays and recreational activities throughout the year, come within the framework of existing pre-school institutions in a number of cities also. Outlines for the programmes in such centres are put out by the ministry in charge of pre-school teaching and education.

The level of pre-school provision does not meet the needs of families with young children, or those of the children themselves. Members of the OECD team heard that in Serbia a smaller proportion of children (the suggested proportion ranged between 20 %-30 % overall) have been involved in early childhood education and care than in other countries with similar economic and social development. Older children comprised the greatest number attending.

There are significant regional differences in the number of pre-school institutions which are found predominantly in big cities, urban areas, and municipal communities. There are few in rural areas. More than one child can be enrolled per child place and there are regional differences in this also.

Decentralisation from the state budget to cities and municipalities in the allocation of funds for erecting new buildings and maintenance of premises is said to have increased regional and local differences, with pressure in some areas while buildings may be empty in other, *e.g.* where the distance between the pre-school's location and where families now live is too great. It is suggested that perhaps 50 % of groups have a greater number of children than the regulations allow. The economic crisis has meant that buildings are often in need of repair, and equipment is in short supply and poor repair. In addition, the design of some pre-school buildings does not lend itself to modern approaches to pre-school education.

²⁵ Cassie Landers, Early Childhood Development in the Federal Republic of Yugoslavia: Suggested Strategies for UNICEF. New York; 2001.

An insufficient network of provision and overcrowding can have negative outcomes for children's health and learning, makes both the teaching process and interaction with parents more difficult, and puts even greater strain on buildings and equipment. Increasing the numbers of children in a classroom rather than establishing new ones also limits the opportunities for new teachers to come into the profession, exacerbates the trend towards an ageing teaching force, and makes it more difficult to introduce new practices.

Lower cost constructions or re-locatable buildings, which would still meet safety standards, could be used to overcome the shortage of pre-schools, particularly in areas with small populations, or where there have been or are likely to be significant population changes. This would increase the ability to provide services for a greater number of children and families and respond to population change while minimising the likelihood of being left with an under used or inappropriate building.

A larger number of smaller pre-school centres rather than few large ones may make it easier to find a site for the pre-school, help parents who may not be comfortable with a large institution to be more easily involved in smaller settings, and make it easier to develop links with the local community. Any possible disadvantages for staff, such as a feeling of professional isolation or a lack of administrative support, could be overcome by forming networks of smaller pre-schools or through links between smaller pre-schools and a larger one (a "hub and spoke" effect as exists in Croatia). The re-introduction of travelling or mobile pre-schools to increase access to pre-school experiences should also be considered.

Curriculum

The "Outlines of the Basic Programme for Pre-school Institutions" for children up to three years of age were introduced in 1994, while similar "Outlines" for children from 3-7 years of age and those for children in ethnic minorities came in to being in 1996. Their aim is to define the goal and tasks of teaching, create an adequate atmosphere for child development in general, social and emotional relations between the children and those who take care of them, and establish the potential activities designed for children and the terms of co-operation with the family in the process of children's development. Legal regulation, including defining the "Outlines", does not guarantee, however, an automatic change in the actual practice of pre-school institutions.

For children up to the age of three years, evaluations show that while there has been progress in achieving the desired change established in the new "Outlines", practice is still in general closer to the traditional rather than to the contemporary approach to supporting very young children's development by integrating care and development activities. Routines and practices still tend to be based on adult convenience and large group sizes, insufficient and inadequate supplies of education materials, and insufficient professional support to staff have been identified as exacerbating difficulties in changing practice.

The essential feature of the curriculum for children from 3-7 years of age is the provision of conditions for the positive physical, intellectual, social, emotional and moral development of children who are viewed as active, interactive and creative beings. Two models exist, with pre-schools able to choose between them:

Model A is the curriculum applied in an open system of teaching and education, wherein the starting point is the child with his need and right to be what he is, to grow and develop. The pre-school teacher provides the conditions for and directly stimulates children's learning; is an autonomous decision maker and a member of a team of pre-school workers; and involves, works with, and is responsive to parents as true partners in the pre-school endeavour. She

operates on a cycle of observation, programme planning and evaluation of the child's achievement and her own work. This model not only leads to the transformation of the institution and the teaching practices within it, but it also transforms the professional development of practitioners.

Model B is more of a structured curriculum model and therefore somewhat more traditional in approach. It deals separately with principles, goals of the system of activities, and to some degree with the content of the programmes, the organisation of the daily routine in the preschool, and co-operation with the family and the local community.

Evaluation indicated that the choice of model was influenced by the suggested method of work, pre-school teachers' previous experience and teaching, their greater autonomy, their desire for changes and knowledge, and the possibility of children opting for certain activities. In an evaluation of the "Outlines" by 10 % of all teachers, specialists and managing directors of pre-school institutions in Serbia, factors identified as making their work more difficult were: lack of financial means and insufficient educational materials, method of planning a programme of activities, difficulty in accepting a working relationship with parents and children, traditional organisation of work, more open relations with the family, the burden of stereotypes, and reluctance to accept innovations.

The introduction of the 1996 "Outlines of the Basic Programme of Pre-School Education in Language of National Minorities" involved a series of stages: collecting data on existing conditions of pre-school education; identifying relevant socio-linguistic factors and developing ethno-linguistic profiles of teaching groups; familiarisation with the Outlines and their new methodological approach; and the writings of manuals designed for the specific purpose of teaching pre-school children in the language of ethnic minorities. An evaluation of the "Outlines" application in the first few years showed that communication between children and their teachers had improved considerably, although one problem identified was teachers' insufficient knowledge of Serbian as a second language.

Co-operation among NGOs, the Ministry of Education and Sport, some academics, and teachers has brought about some major changes towards the more open programme approach that involves parents and children as active participants with teachers. The teachers involved have found the implementation and impact of the new approach professionally stimulating and satisfying, despite the limits imposed by outdated physical conditions and many of the educational materials themselves. They also have no doubt of the value for children and their families. However, the institutions and teachers implementing these new approaches appear to represent only a relatively small proportion of the overall system of pre-school education in Serbia, with the "closed pre-school institution" of the past still predominating. While the changes that have occurred are very positive, the consequence has been an increase in the differences in conditions and the quality of the teaching and educational practice between pre-schools. Unfavourable conditions – lack of specialists, isolation of practitioners, lack of an ongoing network of in-service training, insufficient funding etc. – have limited the implementation of the new approach. The changes introduced in 1996 are really only the beginning of the process of diversification and responsiveness.

The new Outlines provide a sound basis for supporting young children's development and learning, and for involving their families in a true partnership. Their impact will however remain limited by the lack of a comprehensive programme of in-service professional development and appropriate physical conditions in pre-schools. A further extension of options to enable introduction and evaluation of a wider range of pre-school services and programmes that incorporate different approaches to teaching and education practice would be in keeping with today's understandings of social sciences and pedagogy. It would also increase the potential of services to respond effectively to young children and their families who live in a wide range of contexts and may have very different needs.

Teacher Training for Pre-School Education

Pre-service training for pre-school teachers

Staff currently working in pre-schools will have received their initial training during several different periods and according to different approaches. Initial training was given at high school level; at the higher professional level, incorporating a preparatory stage; as a two-year course of study at higher professional education without a preparatory stage; or in one of the 11 higher education institutions of pre-school teacher training (colleges), where a curriculum established by the Associations of Institutions of Pre-School Teacher Training of the Republic of Serbia and accepted by the Ministry of Education was implemented in 1993. At this time the training of primary school teachers moved to the university level, and pedagogical academies became pedagogical faculties where all pedagogical specialists, apart from pre-school teachers, are now educated. The current curriculum in institutions providing pre-school staff training consists of four basic categories; general and specific subjects; professional disciplines; practicum/practical subjects; and pedagogical practice.

There is concern that the schools from which students come do not provide the necessary kind of introduction to the teacher training that is provided. As students can enrol from general or vocational schools, provided they have passed the entrance requirements, their previous education can vary considerably. A two-year training course does not allow for students from a wide range of backgrounds to continue their education and develop practical teaching skills adequately. Today there are more complex requirements of teachers. They are expected to provide a wider range of programmes, activities and services, better matched to families in a variety of circumstances (e.g. co-operating with parents and promoting their knowledge and understanding of young children's learning). A higher level of education among parents in general also increases expectations that pre-school teacher will have a fully professional training that prepares them to work in institutions that are responsive to the needs of individual children, parents and communities.

The number of classes in the methodology of each discipline is generally regarded as insufficient for practical work. Practical training is not designed to develop more critical attitudes towards offered models or to ones own teaching, but rather follows a pattern of imitation. Neither does it develop an ability to provide new creative solutions to pedagogical problems, which would result in activities designed specifically for particular situations and children's needs. Large classes mean that teachers cannot follow the practical work of students appropriately and large groups observing in pre-schools disrupt routines. Apart from observations, future pre-school teachers have only five weeks of experience during their professional training. A further problem at both the teacher training institution and the pre-school is the lack of equipment and resources that are needed for effective practical training.

In-service training for pre-school teachers

In Serbia, in-service training at the level of the pre-school institution is compulsory and forms part of the Programme of Activities in every pre-school institution. In the last decade however, in-service training has been affected by insufficient funding, and inefficient standards in the organisation, implementation and co-ordination of training. Motivation for professional development has also been affected in some cases by inadequate income and difficult work conditions.

Recently, NGOs have also contributed to in service education (*e.g.* topics on children's rights and "active learning" have been organised by experts from Serbia in co-operation with UNICEF). While there is no over-arching framework, in-service education is provided through seminars, lectures, conferences, workshops and meetings and professional discussions. In addition, centres of methodology (represented by

one of several pre-school institutions where in-service training for that region or area of training is organised) and model centres have been used very effectively to bring about changes in professional practice.

Ongoing opportunities for in-service training are needed to assist teachers to connect initial training with practice and with the actual needs of children and parents in various environments; to develop further in areas of understandings which can only be introduced in a pre-service programme *e.g.* involving and working with parents and working with children with specific needs and to remain abreast with contemporary knowledge and practice. A system of in-service education is also important for bringing about changes associated with new curricula or other government "directives"; mandating changes will not in itself bring about changes in practice – those who are in charge of the procedures, the pre-school teachers, have to be involved. In-service training is particularly important since many staff received their initial training some time ago and under different systems.

Training of Pedagogues, Psychologists and Special Education Teachers for Pre-schools

The initial training of pedagogues, psychologists and special education teachers employed in preschool institutions is regulated by the Higher Education Act, but as their status and role are not specified, the nature of their role can depend on the head of the institution, other staff, or themselves. This does give important flexibility to meet particular needs in different institutions, but in practice their ability to plan and organise children's activities appears to be limited by a lack of practical training in planning, designing programmes, observation, and evaluation procedures. Pre-service training in special education does not appear to suffer a similar lack of practical experience; the theoretical frameworks and practical experience in the disciplines selected by students are brought together in the ninth semester of their training.

More systematic connections between training at initial and higher levels are needed. This would decrease misunderstandings between pre-school teachers and other professional staff in pre-school institutions that are based on different concepts and training, lead to more effective outcomes for children and families, provide a better pathway for pre-school teachers moving on to higher level studies and roles, and increase the effectiveness of the other professional staff employed in pre-school institutions. The balance between the numbers of pre-school teachers and pedagogues, psychologists and other pre-school specialists being trained also needs to be considered given evidence that the number of pre-school teachers is (in many cases) below what it should be according to the planned pupil:teacher ratios.

Training for Specialist Roles

The director of a pre-school institution and the supervisors/inspectors from the MoES can have a major impact, both tangible and intangible, on the operation and tone of pre-schools. Given the considerable size and complexity of many pre-school institutions in Serbia, and the desire for early childhood education and care provision and practice to be consistent with modern understandings and meet diverse family and community needs, training for these roles is needed.

A "training framework" for the pre-school sector that identified in broad terms the training provisions needed, the appropriate level for different elements (*e.g.* initial/pre-service training; in-service provision; higher qualifications; specialist roles) and the links between them would assist in achieving, and maintaining a coherent, and thus more effective and efficient training sector that was consistent with the requirements of the sector. Such a framework could assist those wanting a professional career in the pre-school sector to identify appropriate training pathways.

Vocational Education and Training (VET)

Initial Vocational Training

Vocational schools provide 2- 3- or 4-year vocational education (only the 4-year type provide the possibility for access to higher education). After two years of working experience, holders of a vocational qualification can receive one year additional training to acquire a specialist diploma. Each vocational school provides education in one of 15 vocational fields. Within each vocational field, there are vocational profiles specialising in one or more occupations. There are 118 profiles for the 3-year vocational schools and 131 profiles for the 4-year schools.

The secondary vocational education and training system remains as it was 10 years ago; *i.e.*, it is still designed to serve the needs of a centralised economy, mainly based on heavy industry. An example of this is that 20 % of the students in secondary vocational education are enrolled in metallurgy and mechanical schools, despite the fact that, since the sanctions, the attractiveness of these types of schools has declined, and drop-out rates have increased.

Overall, vocational education and training do not enjoy a high reputation among parents and students today. Although 75 % of all students in secondary education are enrolled in vocational schools, the majority of the pupils who finish primary education would prefer to enrol in secondary general education. Because the number of places in general secondary schools is limited, most pupils are obliged to enter vocational schools.

The preference for secondary general education is well justified, considering that in recent years 90 % of vocational school graduates have been unemployed for 1 to 5 years before they were able to enter the labour force. Meanwhile they often enrol in higher education, which helps to explain the steep rise in the number of young people in universities (142 000 in 1997 to 200 000 in 2000). Students finishing 4-year secondary vocational education usually apply to enter university. Also the government, in order to postpone the problem of high youth unemployment, purposely lowered the criteria for entry to the university. ²⁶

Adult Education and Training

Adult education and training are currently almost non-existent. It is estimated that in the past few years only 1 % of the adult population received training. Traditionally, adult training has been provided by a number of institutions, including:

- 11 schools for adult education; however, most of the participants have always been young people between 15 and 18 years old, thus using these schools as a second-chance facility rather than a (re)-training facility.
- Workers Universities, where adults can take short or longer-term courses to complete their knowledge or develop new skills. However, today only 10 WUs are functioning.
- Facilities of the Employment Offices, which provide training for job seekers and employees.
 They function well, and have good links with enterprises. They provide mainly courses in computing, project management, management, and job-seeking methods. However, the

²⁶ See the Higher Education section of this report.

volume of training they provide is not enough to cover all needs due to financial and capacity constraints.

- Enterprise training centres; however, at this stage it is not clear to what extent they are in a position to train their personnel adequately.

The future demand for (re)-training of the labour force is expected to be extremely high, due to the large-scale economic re-structuring Serbia will have to undergo. Large state enterprises need to be restructured in terms of ownership, production technologies and products. Accordingly, new managerial capacities have to be developed for the management of those enterprises, but also for their staff who have to be (re)-trained in the use of new technologies and products. Official estimates are that approximately 800 000 people will become redundant as a result of the first phase of re-structuring.

In addition, 730 000 people (25 % of the labour force) are registered unemployed today. The low-qualified are over-represented in this number, and 13 % of all unemployed are unemployed for 10 years or more. This demonstrates that a serious (re)-qualification effort is needed to avoid discouragement of the low-qualified and long-term unemployed, and keep them economically active where possible.

However, there are a number of impediments to retraining and re-qualification of Serbia's labour force. First, there is a lack of a clear view and strategy on how to modernise the vocational education system to adapt it to the requirements of an economy in transition. Second, there is a lack of knowledge of new technologies and management skills at the level of the trainers themselves. Third, there is a lack of training capacity in terms of infrastructure and organisation of this infrastructure. Fourth, there is a lack of funds for investing in a massive training effort.

Issues and barriers in VET

- The discrepancy between demand and availability. One of the main problems is the discrepancy between the demand for certain types of vocational education (vocational fields and vocational profiles) and the availability of places in the schools. Places in the 3-year vocational schools exceed the demand for those places, while the opposite is true for 4-year vocational schools. Also, in the 3-years schools there is high demand for profiles linked to the provision of personal services, engineering, transportation and administration while production-related profiles (in mechanical engineering, metal processing, mining, etc.) are not popular. In addition, in the 4-years schools, the demand for nursing and commercial services, trade and tourism, art, etc. is double the available capacity. This demonstrates that the present provision of vocational education and training does not correspond to the requirements of the economy and also lacks flexibility. Rationalisation and optimisation of the school network and of the places offered for different vocational fields and profiles should be reconsidered according to the present needs of the economy and society.
- Are the regions ready for decentralisation? The future decentralisation of the management of the whole education system towards the schools and municipalities, which was announced by the MoES, will be a positive step towards this rationalisation and optimisation of the school network, as it will bring decisions about training provision closer to the needs of the local economy and society. However, it is questionable at this stage whether agents in vocational schools and in municipalities are ready to undertake this responsibility, taking into account the long period of passive attitude and the lack of skills and motivation. A capacity-building effort will be required to activate local actors and develop their skills.

- The role of stakeholders. The role of enterprises in the definition of skills and qualifications needed, the structure of the training provision, and their impact on the training programmes have been marginal for several years. The current economic restructuring, the privatisation process and the development of a private sector will require a reconsideration of the relation between education institutions (Ministry of Education and Sport) and economic agents (enterprises, trade unions, chambers of commerce, employment services, etc). In fact, economic agents will have to become more active in the definition of the qualifications to be provided and in the training programmes themselves. New institutions and processes will need to be developed to ensure that there is close communication between education and the economy. The reactivation of the Educational Council which will bring together a large number of stakeholders is a good opportunity for the promotion of better links between the two sides.
- Need for labour market information. To improve the responsiveness of the VET system to the changing needs of an economy in transition, together with better communication links between education and the economy, there is also need for a developed labour market information system which can give early warning messages on skill shortages and mismatches. Today, there is a well established information system in Serbia. The Employment Office runs detailed registers of unemployed and vacancies, the Statistical Office runs monthly surveys of the enterprises and undertakes an annual household employment survey. However, this system has been developed to function in a centralised economy. There is a need for a close review of this information system and its (eventual) adaptation to the needs of a market economy. Moreover, there is also a need for capacity building in the analysis and interpretation of the information produced.

Higher Education

Background

In Serbia, Higher Education Institutions include universities and arts academies on the one hand, non-university higher schools or colleges (teacher training *et al.*) on the other. There are five universities with a total of 90 faculties. These faculties will want to stay as they are, but regrouping them according to academic fields would bring synergy effects (*e.g.* university for medicine, social sciences, technology etc.). One possible reason for resistance on the part of the faculties could be that they receive funds according to the number of students enrolled. These numbers do not reflect the actual number of students in class nor the output of academics. Students' unions and other stakeholders have had little or no influence in reforms since 1998.

One interesting development in higher education was the founding in 1998, when universities lost their independence and some 200 professors were fired, of the Alternative Academic Educational Network (AAEN), an association of non-governmental and non-profit oriented organisations and programmes. The basic aim is to provide additional and alternative graduate education for young academics (students and junior faculty members) and a model for university reform, thus helping the processes of transition towards an open civil society, a market economy and political democracy. The initial intention was to "preserve and advance excellence and social relevance in higher education". The programmes offered were very well received, in fact there are three to four times more applications from students than they can accept. In the near future AAEN will try and develop a centre for advanced post-graduate interdisciplinary studies (probably also changing the name to Advanced Academic Educational Network) putting the stress on the disciplines and problems not present in the curricular of the state universities. Students graduating from

these programmes will be ready to fill the positions that are opening within the public and local government, market economy, civil society, modern business and engineering etc. In addition they will be capable of taking up posts at the state universities as junior staff and disseminate the knowledge further. At the time of writing, AAEN has 96 professors, 100 visiting lecturers and 180 students. In the academic year 2000/2001 it offered six graduate programmes. AAEN has received support from OSI/HESP, the Association of European Universities (CRE), the Council of Europe as well as World University Service, Austria and the German and Austrian Rectors Conference.

In the coming years AAEN will face some structural questions: on the one hand it could change its NGO status to that of a regular school, on the other hand the question of re-integrating into a university or remaining independent will have to be tackled. All in all, AAEN can be seen as a highly innovative and flexible institution providing a good example in terms of curricula and teaching methods. It is to be hoped that they will influence university reform in such a way that there will be higher standards, more accountability and more orientation towards the needs of society.

A new legal framework for higher education has been proposed providing for university autonomy to be restored, and this is expected to be passed by Parliament as one of the first pieces of legislation of the new Government. New regulations have enabled elections for all positions of Rector, deans and professors, thereby making it possible for any appointment improperly made in the past to be rectified. This process was almost complete at the time of the team's visit. The new legislation provides for an accreditation board, which will initially operate for three years. While the purpose of the board is supported, regional universities are concerned about the dominance of the board by one central university which has six out of the nine board members. It is understood that this is a matter which will be resolved during Parliamentary debate on the new legislation. There is general support for the direction of the new legislation and the open processes used to remedy past difficulties. At the same time, other issues will need to be considered.

Financing

The Ministry receives a lump sum for education and sport, and is in the process of developing a system to share the budget between the various levels. In principle, only state universities and higher education institutions (2-4 year vocational schools) are financed by the Ministry, while private universities are supposed to finance themselves completely. The system has been funded in recent years according to a decree (1995) which gave a formula to calculate the total amount of money that should be allocated monthly to each faculty. There are two categories. One is related to salaries based on the number of faculty members, their grade and years of employment as well as the number of students, courses, study groups, etc. The assumption is that the weekly norm is four lecture hours, (which the current Ministerial team believes is too low and plans to increase). The second category covers teaching and material expenses. This is based on faculty groupings, type of course and estimated cost (e.g. the material costs of delivery of a chemistry course are higher than a mathematics or history course). In theory there is also a line in the budget for capital investment in buildings and laboratories, but in reality there has been no funding for these items for the past several years. Another item that has not been funded in recent years is financial support for academics to attend conferences or take part in exchanges.

The Material Situation

Universities suffered from a severe lack of investment over the past decade, which means that some premises need renovation, libraries are under-stocked and under-equipped, modern technology is outdated or does not exist, and means for experiments and research are lacking. All these constraints

combine to cut off Serbian universities from the rest of the world and seriously impede their possibilities to compete in the scientific world. Of course, the students also suffer from these shortcomings – especially when it comes to teaching materials, learning to work with computers, and research. Since the change of government, there has been a "rush" from foreign universities to work with their Serbian counterparts, but it will take some time to see the benefits of these exchanges and to assess the quality of these projects, agreements and other activities.

Curricula

Although it has been stressed that in former years the achievements of Serbian students were good and comparable with other universities in Europe, it was also stressed that the curricula are overburdened, in some respects outdated and too heavily information-oriented and too little skills-oriented. "The entire educational system focuses on the implementation of set curricula. Due to the excessively detailed nature of curricula and exceptionally outdated teaching methods dominated by "transmissive" forms (*i.e.* teachers' lectures), the activity of pupils and students is basically reduced to pointlessly memorising myriad unrelated facts."²⁷ In other words: the curricula need to be adapted to the needs of the society and to European standards. It will be difficult to change the well entrenched system of teacher-centred teaching techniques and adopt more skills-oriented methods. Consequently, it will be important to combine curricular reform with the retraining of university teaching staff since the introduction of new programmes into a rigid faculty system may have little effect on teaching methods. Another point is that the faculties offer only compulsory courses, and no electives.

Teachers

Standards and evaluation. Universities complain that over the past decade they have had to lower their standards because of the great influx of students -many of whom were refugees. On the one hand, many vocational school graduates were unemployed for periods of up to five years, and have used this time to enrol at university. On the other hand, there was a strong influx of refugees, many of whom also entered universities. In most academic fields this resulted in an unfavourable student:teacher ratio, although some fields appear to be overstaffed (e.g. over 90 professors for surgery at the medical faculty).

So far, the quality of departments and faculties has been measured only against the academic achievement of their best students; little attention has been paid to the average student's performance, or to the teaching-learning environment. Students have so far not been involved in evaluating the performance of their university teachers. Evaluation methods are needed to enhance curriculum development, teaching techniques, communication with the scientific community etc. "The quality of education is a special problem. There is no objective mechanism of evaluating educational achievements (objective knowledge tests, achievement tests based on national norms, participation in international school achievement evaluation, etc.) nor any established rating of educational institutions."

Issues and barriers in Higher Education

A long period of isolation. As a result of the politics of the past decade, the impoverishment
of a large part of the population, and the sanctions, it was very difficult or even impossible

^{27.} Ivič, Ivan: "Transformation of Education – Education and the Transformation of Yugoslav Society", Institute of European Studies, Belgrade 1998, in the process of publication in English; page 11.

²⁸ Ibid., p 9.

for the teaching staff and the students to travel. Thus neither could take part in programmes such as TEMPUS, and most academics could not attend conferences abroad. Teaching staff, therefore, could not keep in touch with scientific developments in their field nor establish or keep up personal links with staff of other universities abroad. Today they are confronted with a whole generation of students who have never been abroad, and whose experience is limited only to Serbia in the past decade. To include Serbian students and teaching staff from all academic fields in international networks is of great importance to the future of the universities and society as a whole.

- University as an alternative. Only about 30 % of enrolled students ever finish their studies. Thirty per cent of students take more exams than do all the rest together. A reason for this is that "being a student" has so far been perceived more as a permanent social category rather than as a temporary occupation leading to an academic degree. Thus the university does not function as an educational institution producing graduates, but as an alternative to the labour market.
- The effect of shortened classes on student achievement. Over the past decade the academic achievement of students has suffered from the fact that the teaching staff had to engage in all sorts of non academic activities (including black market, smuggling, catering etc.) to make a living during the academic year (this is especially true for the academic year 1999, which ended on 24 March because of the NATO bombings). Prior to that, heating problems and strikes for higher salaries caused significant loss of teaching hours. Predictably, student learning and achievement suffered.
- Missing links. There is no in-service training institution, and there are only scattered inservice teacher training initiatives (e.g. from the Department of Psychology, Belgrade University). "What is dramatically missing is a non-formal system, i.e. an educational system for the population above the age for regular schools. This system would include primary education for adults, vocational education, in-service professional training, education through the mass media, education in the media, educating adults for the role of citizens, education of the village population, etc."²⁹

Recommendations

Recommendations: Policy and Management

- Establish comprehensive, coherent and clear policy and strategy for education reform. With the new government in position, previous education policies are no longer valid or useful. Despite their recent arrival, the new team at the Ministry of Education and Sport has already had important opportunities to choose its future directions. The role of the Education Forum and other advisory bodies and NGOs in policy formulation has been especially useful, and should be drawn upon.
- Redesign the functions of the Inspectorate. Fundamental transformation of the roles and functions in education administration cannot happen overnight, but the MoES should make the reorganisation of the existing Inspectorate a priority in management reform. Inspection should be transformed from a purely control function to a support and advisory function.

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^{29.} Ibid., p 10.

Obviously, this will not be possible only by re-training existing staff; new experts will need to be recruited as well.

- Train education leaders and school principals. Again, because school heads were politically appointed and under mandate from the Minister, reform of education will be difficult with the old leadership. The MoES should seek to recruit new school principals and establish a compulsory training structure for all new school heads. Training should also include municipal authorities in charge of education locally.
- Extend support to developing local management. In political and economic transitions, the majority of interventions (in terms of both financial and technical support) flow usually through the central administration. In the case of Serbia, it is of paramount importance that education reform be designed so that local management structures and regional administration receive a sufficient slice of intervention resources.
- Co-ordinate external co-operation. It is probable that the restructuring of a democratic society in Serbia will awaken the interest of external donors and other partners. There are alarming examples elsewhere that, when fragmented project proposals enter a fragile and ill-prepared education system, actions are driven by bureaucratic models of project approach and the interests of external experts. In order to avoid chaotic management of numerous single initiatives, the MoES should prepare a strategic plan for co-ordinating and managing the emerging foreign support.

Recommendations: Equity in Access, Attainment and Achievement

- Ensure that state and municipal legislation and policies are family- and child-friendly, both in intention and effect. Some child-related benefits and services that used to be linked to the workplace are no longer available; as the state retreats from daily life, new social networks and the emergence of a non-government civil society need to fill the gap. However, poor families, families in deprived areas, families in "marginalised" groups, and families with special-needs children are more vulnerable than others to changes in state-funded social protection; adequate provision must be made for them. In particular, ensure that health care for women is maintained, as this is a prime determinant of children's physical and mental health, and therefore of their educational attainment.
- Support efforts to co-ordinate the work of various ministries (Labour, Health, Social Protection, Finance, and Education) for the maximum benefit of families and children, especially those at-risk socially, geographically, or economically.
- Ensure that no child in Serbia is denied her or his right of access to quality and equality in education.³⁰ This includes children of minority-language groups (especially Roma), children with special educational needs (including gifted and talented children), children at risk (such as street children, juvenile delinquents, children in poor or dysfunctional families) and children traumatised by war and dislocation (refugee and returnee children, orphans, internally displaced [IDP] children).

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³⁰ United Nations Convention on the Rights of the Child. A number of articles are relevant; *e.g.*, Art. 19 (protection of children against all forms of violence); Art. 22 (rights of refugee children); Art. 23 (rights of children with disabilities); Art. 24 (child health); Art. 30 (children of minorities); Art. 28 (education as a right for all); Art. 29 (respect for the child's parents, cultural identity, language, and national values, as well as respect for others).

- Work towards full integration of disabled people in community life. "De-medicalise" the
 approach; abandon the term "defectology"; improve teacher preparation and in-service
 training; and fit provision to the needs of children, rather than to the convenience of schools
 and teachers.
- Widen the definition of "special needs" to include common learning disabilities like dyslexia
 and behavioural and post-war stress disorders, which can be even more detrimental to
 successful learning than the more obvious handicaps traditionally catered for in the previous
 system.
- Require that the specifications for all building and rehabilitation projects take full account of the needs of disabled youngsters.

Recommendations: Curriculum, standards and assessment

- Make curriculum development a participatory process. The Curriculum Development structure or unit of the MoES should be upgraded as soon as possible inside the Ministry, or moved outside it as a professional (semi) autonomous body but under policy direction from the Ministry. This unit should have clear functions and tasks, as well as a body of highly professional curriculum developers. Technical assistance and exposure to current day experiences is needed most urgently.
- Develop a coherent and valid curriculum policy. This should be formulated as soon as possible, based on a clear educational philosophy and a set of firm curriculum principles. It should encompass short-, medium- and long-term curriculum development policies and practices for the education system.
- Combine a bottom-up and top-down process of curriculum design. Curriculum design and implementation processes should proceed simultaneously: bottom-up (as firmly stated in the recent Strategy Paper issued by the Ministry) and top-down. The development of the curriculum framework should be done with the participation and ownership of all those interested. It should advance in parallel with concrete changes that are introduced at the level of the "real classroom curriculum and setting".
- Promote curriculum coherence and consistency. A Curriculum Framework should be
 established as conceptual basis for all further changes (introduction of new subjects,
 reduction of the content, new pedagogical outlook etc.). This could offer:
 - A coherent conceptual component (*i.e.* the rationale for the need for change; including educational philosophy as assumed and promoted by Serbian society; a common set of educational principles concerning curriculum, learning, teaching, assessment and evaluation; common national standards and expected outcomes of the system; core and school based curricula).
 - A strategic component (i.e. short- medium- and long-term curriculum priorities, procedures for planning, designing, implementing and reviewing curriculum on an ongoing basis; clear actions and timelines).
 - An institutional, managerial and monitoring component (i.e. establishing professional bodies as well as a set of appropriate capacity building and staff development policies and

regulations for implementing, managing and monitoring the ongoing curriculum development process).

- Create a student-oriented curriculum. The range of student learning activities should be enlarged; exercises, debate, group work, interactive learning, project work, field studies, problem solving and discovery should be introduced into current classroom practice. It is time-consuming to develop higher order learning strategies, and they cannot be developed if all the available teaching time is used to satisfy the requirements for factual knowledge and rote learning.
- Work towards a more holistic view of education. While not neglecting the traditional basics such as literacy, numeracy and scientific knowledge, the school should devote more attention than at present to wider humanistic fields such as citizenship, values, culture, economy and ecology. The conduct of each individual citizen towards others is a main outcome of an educational system. Schools must respect their educational responsibilities and strive to enable students to grow both personally and socially, thus allowing them to mature from their school experience to society at large.
- Give more scope to the development of school-based curriculum and teacher training, school improvement, school climate. Schools, teachers and principals should take part in the design and development of the new curriculum. In-house training of teachers that supports school-based curriculum development should be fostered, involving teachers and administrators from the same school as groups to ensure that changes have a discernible and sustained impact on classroom practice. The improvement and curriculum renewal process in schools should target the group of professionals and administrators in fact the whole school fostering its status as a learning organisation.
- Overhaul and liberalise the textbook approval and provision process. Open it up to competition, and ensure that textbook content reflects new emphases on higher-level thinking skills (e.g., problem solving, critical thinking, application of concepts to new situations, etc.) rather than knowledge and repetition of facts.
- Ensure quality through agreed standards and standards-based assessment of student learning. A professional institutional structure preferably independent or semi-independent from the Ministry should be created as soon as possible, in order to develop a clear policy and strategy concerning assessment and examination in Serbia. Such a unit would have an important technical task in developing standards and criteria for different types of educational measurement, including sample-based national assessments and better ways for teachers to assess pupils' progress in the classroom, as well as "external" examinations.
- Conduct a series of baseline surveys in a number of key subjects (for instance mother tongue, mathematics, and science) at certain stages of schooling (for example, grades 4 and 8) in a relatively short period. The results will offer a clearer picture of why educational change is needed, and where and how changes should be made. (A useful start has already been made with a recent national study of basic literacy skills among grade 8 students, discussed earlier in this report.) In addition, training for teachers is needed to develop a new culture of standards-based marking, a modern culture of reliable measurement, and assessment and examination throughout the system.

Recommendations: Teachers

- Reduce the content of curricula. This is the first and most straightforward act of reform that should be done as soon as possible. Teachers are able to do much more with much less content. At the same time the workload of pupils should be limited to a reasonable level, teaching in the elementary grades should be more child-centred, and teachers should have more possibilities together with parents to decide what is best for their pupils in any given grade.
- Reduce the number of pupils per class, especially in urban areas. It is of paramount importance that during the early phases of educational reform in Serbia this recommendation be taken seriously. Over-crowding is a serious threat to reform and improvements in education. There should be a regulated limit to the maximum number of students per grade class for all schools.³¹
- Create a comprehensive strategy for teacher training and professional development of teachers, including in-service training. Initial teacher training should focus more on educational and pedagogical issues and less on content knowledge of the subject. A principle of pedagogical content knowledge (PCK) should be followed in teacher training reform. This strategy is particularly important now when there will be more external donors and cooperating partners who certainly will have intentions and interest to invest in in-service training of teachers. Therefore, it should be made clear that any activities in the field of teacher training should be based on the demands of reform and the overall system, rather than on the supply and expertise of foreign consultants.
- Improve the salaries of teachers. Salaries should be raised, certainly to put teachers on a par with other professional salaries in Serbia, and if possible to bring them in line with teacher salaries in other countries and republics in the region. Successful reform will only be possible if teachers are adequately paid. Emergency measures such as negotiating an increase in education's share of the national budget for the next three years are needed in the immediate future. Also, there should be incentives to keep good teachers in the profession, as more tempting opportunities appear for them. A major injection of financial resources in the next few years is essential if Serbian education is to make up for lost ground.
- Improve professional networking and exchange of ideas and experiences. At present, Serbia has no professional newspaper or magazine for educators, even though 120 000 people work in the system. Teachers and other interested people need some common forum to express their views, especially in times of reform. A monthly professional journal or magazine would be an important contribution to the reform; a high-quality web site would also be helpful.

Recommendations: Early Childhood Education and Care

Serbia's pre-school service has a committed and professional teaching staff which is supported by officials and academics with expertise and enthusiasm. Progress towards the reform of pre-school care and education has already begun, and provides a sound basis on which to build. The following

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³¹ The team is aware that the opposite problem – very small classes, multi-grade teaching, schools with fewer than 50 pupils – exists as well, especially in rural communities. Nevertheless, the recommendation to establish a maximum (if not a minimum) class size remains.

recommendations focus on expanding the good things that are already happening, and closing gaps – either in access for children, or in the overall system – that determine the quality of what is provided.

- Expand provision and access to pre-school through:
 - the use of lower cost constructions and re-locatable buildings (which still meet safety standards);
 - the adaptation of space in conveniently located buildings that have been used for other purposes;
 - travelling or mobile pre-schools; and
 - the development of community/family "playgroups" in neighbourhood or local community facilities (in co-operation with NGOs where appropriate).
- Strengthen professional practice and the provision of effective pre-school programmes through:
 - A comprehensive and ongoing programme of in-service education and training, with an initial focus on the further implementation of the new Outlines, implemented with the cooperation of all stakeholders;
 - Provision of a wider range of pre-school programmes involving different approaches (e.g. Montessori or Step by Step) to be implemented and evaluated.
- Improve the match between training provision and the requirements of modern pre-school care and education, through:
 - A "training framework" for the pre-school education and care sector that identifies in broad terms the range of provision needed, the appropriate level for different elements (e.g. initial/pre-service training; in-service provision; higher qualifications; specialist roles) and the links between them, with the participation of all stakeholders;
 - Comprehensive training provision for the entire pre-school sector.

Recommendations: Vocational Education and Training (VET)

- Develop an education and training strategy to support Serbia's economic development strategy. New profiles, corresponding to the needs of the new economic reality, new curricula and new training methods will need to be developed.
- Find new methods to ensure links between the economy and the training system (including a new institutional approach and the development of an appropriate information system). This could be achieved by the establishment of a national body linked to the proposed National Board which intends to accredit vocational education in line with international standards, wherever delivery occurs i.e. in vocational secondary schools, in public and private colleges, or within industry.

- Develop a formal network to provide industry advice to Government on future training needs linked to labour market information in order to reduce the current significant disparity between existing labour market skills and the skills required by new and emerging industries.
- Reform vocational curricula and explore possibilities for collaboration in the use and development of curriculum and learning materials from other countries of the region. All students should be able to acquire enterprise skills at appropriate stages in basic and vocational secondary education. This should be part of the proposed three- to five-year plan to comprehensively upgrade all vocational curricula.
- Become familiar with new concepts and approaches for VET developed in recent years in the EU Member states, and in other European economies in transition. At the same time, make a critical assessment of Serbia's present VET system, identify its strengths and weaknesses, evaluate short- and long-term needs, and on that basis rationalise Serbia's network of VET schools. Inevitably, such rationalisation will mean that some schools or specialisations have to close down; and others to open.
- Substantially increase the volume of training provision, for (a) the re-qualification of a large part of the adult population (low qualified and long-term unemployed, redundant workers) and (b) the (re)-training of employees in large state enterprises. However, it is essential to ensure that training develops skills needed by the local and national economy; there is no point in training people in skills for jobs that no longer exist.
- Attract private capital for investment in VET. Given the limited public resources available, it will be necessary to involve private investors in VET development.

Recommendations: Higher Education

- Use national and international co-operation to re-think the role of universities. The whole higher education sector needs restructuring. Ample time and consideration should be given to decide on the extent of changes. A thorough analysis of the whole sector with its many different faculties, as well as the role of universities in modern Serbian society, should form the basis of any decision. A broad public discussion of the role and function of universities would help to raise the social status of universities, and at the same time involve all stakeholders. Experienced advice from European countries could help facilitate the reform process, or help explore different models for discussion and adaptation. Communication with other European universities should be encouraged by extending the existing links, establishing new ones, exchanging teaching staff and students and designing joint research programmes.
- Rapidly improve the material situation of universities to ensure quality in teaching, and to enable students and staff to communicate with the outside world (e.g., through the Internet).
- Review and develop curricula. They are overburdened and outdated, and need to be brought
 in line with modern developments and practices. Stakeholders (students, teaching staff,
 representatives of the economic sector, social sector, etc.) should be involved in this
 developmental process. Reform steps should also take into consideration teaching standards
 and evaluation procedures.

ANNEX I: LIST OF CURRENT EDUCATION LAWS AND REGULATIONS³²

The following list contains all Acts (*i.e.*, Laws) applied to education, a selection of the most important regulations (from about 100), and a selection of rule-books (from about 50).

Acts relating to Higher and University Education:

- 1. Two-Year Post-Secondary School Act (adopted 1996)
- 2. University Act (1998)
- 3. Professional Titles Act (1995)
- 4. Act on Establishing Teacher Training Faculties and Abolition and Change of Activities of Teacher Training Colleges and two-year Post –Secondary Schools (1993)
- 5. Textbooks and Other Teaching Aids Act (1993)
- 6. Police Academy Act (1993)

Other Acts related to Tertiary Education:

- 7. Scientific Research Activity Act (1993)
- 8. Librarian Activity Act (1994)
- 9. Endowments, Foundations and Funds Act (1989)

Sub-legal Regulations in Tertiary Education:

- 10. Regulation on Standards for Setting the Price of Tuition Fees at two-year Post-Secondary Schools Established by the Republic of Serbia (1995)
- 11. Regulation on Scale of Norms and Standards for Working Conditions at Universities and Faculties Financed by the Budget of the Republic of Serbia (1995)
- 12. Resolution on Establishing the Republic Council for University Education Development (1997)
- 13. Resolution on Number of Students Enrolled in the First Year of Studies at Faculties Established by the Republic of Serbia and on Setting the Price of Tuition Fees for 1997/98 Academic Year (1997)

Regulations for Pre-School Education:

- 14. Children Social Care Act (1996)
- 15. Rule Book on Professional Qualifications Type for Educators, Nurses and Associates in Kindergartens (1989)
- 16. Rule Book on the Curriculum Framework for Pre-School Educational Work and Education for Children Age Three to Seven (1996)
- 17. Rule Book on The Basic Facts of the Programme for Children up to Age of Three (1994)
- 18. Rule Book on Funds Scale of Norms Needed for Realization of Educational Work in Pre-School Institutions (1994)
- 19. Rule Book on the Basic Facts of the Programme for Social Welfare in Pre-School Institutions (1994)

Regulations for Primary Education:

20. Primary School Act (1994)

³² A number of changes are being prepared for some of these Laws and Regulations; see section on 'Legal and Policy Framework' in this report.

- 21. Textbooks and other Teaching Aids Act (1993)
- 22. Rule Book on Professional Qualifications Type for Primary School Teachers and Senior Associates (1999)
- 23. Rule Book on Professional Qualifications Type for Teachers Carrying Out Educational Work According to Primary School Selection Programmes (1987)
- 24. Rule Book on Professional Qualifications Degree and Type for Primary School Teachers at Music Education Schools (1979)
- 25. Rule Book on Certificates for Schoolchildren's Exceptional Performance at Primary Schools (1993)
- 26. Rule Book on Class Norm for Direct Work of Teachers, Senior Associates and Pedagogues with Schoolchildren at Primary Schools (2000)
- 27. Rule Book on Activities Programme for Senior Associates at Primary Schools (1994)
- 28. Rule Book on the Realization Method of Professional Pedagogical Supervision at Primary and Secondary Schools (1993)
- 29. Rule Book on Primary Education Curriculum (2000)
- 30. Rule Book on Educational Work for Adult Elementary Education (1991)
- 31. Rule Book on Method of Grading Schoolchildren at Primary Schools (1994)
- 32. Rule Book on Conditions and the Progress Procedure of Schoolchildren at Primary Education (1994)
- 33. Rule Book on Textbook Plan at Primary Education (1987)
- 34. Resolution on Competence, Number and Appointing of Education Council Members (1994)
- 35. Resolution on Number and Territorial Organization of Primary Schools in the Republic of Serbia (2000)

Regulations for Secondary Education, and Other Regulations:

- 36. Secondary School Act (1996)
- 37. Textbooks and Other Teaching Aids Act (1993)
- 38. Rule Book on Method of Passing on Examinations, their Contents and Standards for Schoolchildren Enrollment at Secondary Schools (2000)
- 39. Rule Book on Pedagogical Norm for all the Methods of Teachers and Senior Associates Educational Work at Secondary Schools (2000)
- 40. Rule Book on Passing on State Examination of Trainees, Teachers, Senior Associates and Pedagogues (1999)
- 41. Rule Book on Realization Methods of Professional Pedagogical Supervision at Primary and Secondary Schools (1993)
- 42. Rule Book on Legal Documents Issued by Secondary Schools (1999)
- 43. Rule Book on Certificates for Exceptional Performance of Students at Secondary Schools (1993)
- 44. Rule Book on Grading Students at Secondary Schools (1999)

Regulations for Gymnasiums:

- 45. Rule Book on Gymnasium Curriculum (1997)
- 46. Rule Book on Professional Qualifications Type for Teachers, Senior Associates and Associates in Gymnasium Teaching System (1999)

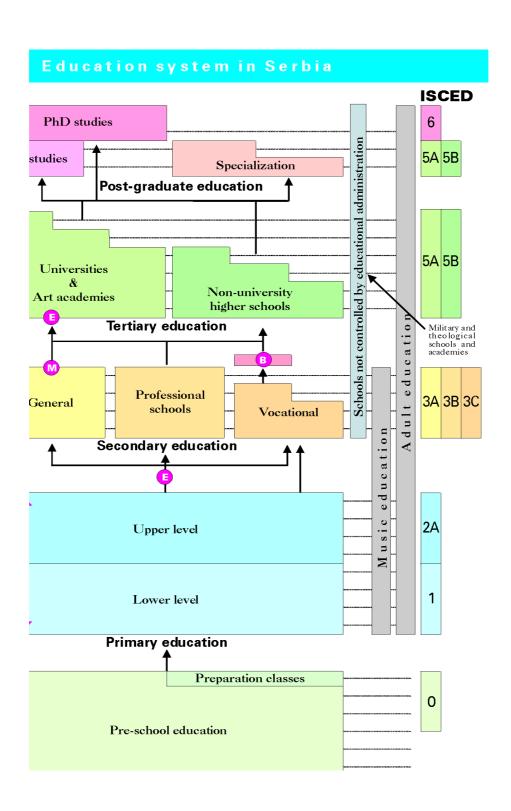
Regulations for Vocational and Art Schools:

- 47. Rule Book on Curriculum for General Education at Vocational and Art Schools (1996)
- 48. Rule Book on Syllabus for General Subjects in two-year Education Process at Vocational Schools (1993)
- 49. Rule Book on Professional Qualifications Type for Teachers, Senior Associates and Associates Engaged in Vocational School Teaching System (1999)

Regulations for Schools for Children with Special Needs:

- 50. Rule Book on Syllabus for One-Year Vocational Training for Schoolchildren with Special Needs (Light Handicap) (1994)
- 51. Rule Book for Professional Qualifications Type for Teachers, Senior Associates and Associates Engaged in Teaching at Schools Specialized for Children with Special Needs (Light Handicap) (1995.)

Figure 1. Structure of the education system and classification of educational programmes by stages and levels according to ISCED:



Source: Ministry of Education and Sport, 2000

REFERENCES

- Alternative Academic Educational Network, Academic Year 2000/2001, Belgrade.
- Center for Educational Policy Studies (CEPS), January 2001. *Statistical Data for Background Purposes of OECD Review: Serbia*, University of Ljubljana Faculty of Education.
- Dinkić, Mirosinka (2000). Education. A background paper for the Educational Forum, Belgrade.
- Havelka, Nenad (2001). "Survey of Basic Literacy Skills in Serbian Language, Mathematics and Science in Grade 8". Unpublished. Presentation at Conference on Perspectives of Education Change in Serbia, MoES, Belgrade, 3 June 2001.
- Ivič, Ivan (1998). "Transformation of Education Education and the transformation of Yugoslav Society". Institute of European Studies, Belgrade.
- Landers, Cassie (2001). "Early Childhood Development in the Federal Republic of Yugoslavia: Suggested Strategies for UNICEF". New York: UNICEF.
- Majić, Victor (2001). Education in Serbia 1999/2000. Petnica Science Centre, Valjevo, Yugoslavia.
- Marojević, Svetlana (2000). "Evaluation of Elementary Education in the Federal Republic of Yugoslavia". Draft working paper.
- Mertaugh, Michael (2001). "Federal Republic of Yugoslavia (Serbia and Montenegro): Recovery Needs in the Education Sector". Washington: The World Bank, ECSHD. Unpublished paper.
- Ministry of Education and Sports (2001). *Strategic Priorities in the Pre-School, Primary and Secondary-School Education*, Belgrade.
- Republic of Serbia (2001). Realized Republic Expenditures for 2000. United Nations Development Programme (2001). Federal Republic of Yugoslavia/Republic of Serbia: Vulnerability Trends & Perceptions. Suspended Transition. Background Report, "0" edition (Serbia) of the Early Warning System for FRY.