Improving Educational Quality (IEQ) Project

CASE STUDIES IN SECONDARY EDUCATION REFORM

IEQ undertaken by:

American Institutes for Research

in collaboration with
The Academy for Educational Development
Education Development Center, Inc.
Juárez and Associates, Inc.
The University of Pittsburgh

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June 2002

IEQ is an activity of the
U.S. Agency for International Development
Bureau for Economic Growth, Agriculture and Trade
Office for Education
Contract #HNE-I-00-97-00029-00

Table of Contents

ACRONYMS V

I. OVERVIEW OF REGIONAL SECONDARY EDUCATION REFORMS IN THE NINETIES 1

A. SECONDARY EDUCATION REFORMS IN SUB-SAHARAN AFRICA 2

B. SECONDARY EDUCATION REFORMS IN THE ARAB STATES 5

C. SECONDARY EDUCATION REFORMS IN THE ASIA-PACIFIC REGION 9

D. SECONDARY EDUCATION REFORMS IN EASTERN EUROPE 12

E. SECONDARY EDUCATION REFORMS IN LATIN AMERICA AND THE CARIBBEAN 15

II. THE REFORM OF SECONDARY EDUCATION IN ARGENTINA DURING THE 1990S 19

A. INTRODUCTION 19

B. THE ARGENTINE EDUCATION SYSTEM, THE CONTEXT, AND THE RATIONALES FOR SECONDARY EDUCATION REFORM 20

C. EDUCATIONAL REFORM DURING THE 1990S 22

1. The New Structure of the System 24
2. Curricular Reform 26
3. Teacher Training 27
4. Education Information and Student Evaluation Systems 28
5. A New Model of School Management 28
6. Compensatory Programs 29

D. IMPLEMENTATION STRATEGIES AND PROBLEMS 30

1. The Role of International Organizations 30
2. The Relationship Between the Central Government and the Provinces 30
3. Implementation at the Provincial Level 33
4. The Relationship Between Central Government and the Schools and the Movement toward School Autonomy 34
5. Teachers' Salaries and Political Resistance 35

E. THE EFFECTS OF THE REFORMS: QUANTITATIVE EXPANSION AND QUALITY IMPROVEMENT? 36

F. CONCLUSION 38

REFERENCES 41

III. SECONDARY EDUCATION REFORMS IN EGYPT: RECTIFYING INEQUALITY OF EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES 44

A. INTRODUCTION 44

B. SECONDARY EDUCATION REFORM, GOVERNMENT POLICY, AND ECONOMIC CRISIS IN THE 1980S 47

C. COMPREHENSIVE ECONOMIC REFORM, SECONDARY EDUCATION REFORMS, AND LABOR FORCE IN THE 1990S 50

D. SECONDARY EDUCATION REFORMS DURING THE ECONOMIC TRANSITION 51

1. Industrial and Agricultural Vocational Secondary Experimental Schools 52
2. The Mubarak–Kohl Project for Promoting Technical Education and Vocational Training 55
a. The Dual System: National Public-Private Partnership and German Cooperation 56
b. Implementation and Development of the Mubarak-Kohl Project 56
c. The Mubarak–Kohl Project from the State, Private Sector, and Students' Viewpoints 57
3. Secondary Education Reform Program (SERP) 59
a. Objectives and Interventions 61
i. Balancing Enrollments between Technical and General Schools 62
ii. Improving Curriculum and Assessment 64
iii. Integrating Technology into Classroom Practice and Teacher In-Service Training 65
iv. Local School Management and Accountability Procedures 66
b. The Reform Challenges and Risks 67
4. Secondary Education Enhancement Project (SEEP) 67

E. CONCLUSION 68

REFERENCES 71

IV. THE REFORM OF SECONDARY EDUCATION IN INDONESIA DURING THE 1990S: IMPROVING RELEVANCE AND QUALITY THROUGH CURRICULUM DECENTRALIZATION 73

A. SOCIAL, POLITICAL, AND ECONOMIC TRENDS IN THE 1990S 74

B. THE INDONESIAN EDUCATION SYSTEM AND SECONDARY EDUCATION REFORM 76

1. The Indonesian Education System 76
2. Secondary Education Reform Context 76
3. The Rationale for Secondary Education Reform 79

C. THE REFORMS AFFECTING SECONDARY EDUCATION 81

1. Basic Education Expansion 81
2. Curriculum Reforms for Basic Education 84
a. Curriculum Design and Implementation for Science and Technology at the National Level 85
b. Curriculum Development at the Local Level: Curriculum Decentralization 86
i. The Curriculum Network Group 87
ii. Some Accomplishments of Curriculum Network Groups 88
iii. The Main Features of the LCC in 1994 88
iv. Evaluating LCC Implementation for the Last Five Years 89

D. SUMMARY AND CONCLUSION 92

REFERENCES 94

V. SECONDARY EDUCATION REFORM IN KENYA: THE QUEST FOR QUALITY, RELEVANCE, AND EQUITY 96

A. INTRODUCTION 96

B. SECONDARY EDUCATION REFORM IN KENYA: A HISTORICAL PERSPECTIVE 97

1. The Ominde Commission 97

2. Further Changes to the Kenyan Education System prior to the 1990's 99

a. Political Aspects of Change 99

b. Social Aspects of Change 102

C. THE 8-4-4 EDUCATION SYSTEM 103

1. Why 8-4-4? 103

2. The Implementation of the 8-4-4 System: Problems from the Onset 104

D. THE 1990S: TRENDS AND ISSUES IN SECONDARY EDUCATION IN KENYA 108

1. Issues Related to Access and Equity in Education 109

a. Regional Differences 109

b. Gender Differences 109

c. Economic Differences 111

2. Issues Related to Educational Quality 112

a. Curriculum and Instruction Materials 112

b. Outcomes of Schooling Teacher 114

c. Teacher Training and Educational Management 116

E. TOWARDS REFORMING SECONDARY EDUCATION IN KENYA IN THE 1990S 118

1. Summaries of the Contents of MPET and the Koech Reports 118

a. MPET 118

b. The Koech Report 120

2. MPET and the Koech Reports: What is the Difference? 122

3. Reform Debates in the 1990s 124

F. CONCLUDING REMARKS 125

REFERENCES 127

VI. REFORMING THE CURRICULUM IN ROMANIAN SECONDARY EDUCATION 129

A. THE ROMANIAN EDUCATIONAL SYSTEM: CONTEXT AND RATIONALES FOR THE SECONDARY EDUCATION REFORM 129

The Complexity of the Change 130

1. The Reform of the Evaluation System 131

2. Teacher Education 132

a. The Reform of Initial Teacher Training 132

b. The reform of further (in-service) teacher training 133

3. Financing Pre-University Education 133

4. The Curriculum Reform 135

5. The Textbook Policy 136

B. CAUSES AND OBJECTIVES OF THE CURRICULUM REFORM 137

Reducing the "Burden of the Curriculum"? 137

C. THE TUTORING SYSTEM: CAUSE AND EFFECT OF THE CURRICULUM REFORM 140

D. CONCLUSIONS: NEW ISSUES RELATED TO ACCESS, EQUITY AND QUALITY 142

Recommendations for the Next Phase of the Education Reform 144

REFERENCES 146

ANNEXES.....147

ANNEX A: ENROLLMENT RATIO TABLES, BY REGION 148

Primary and secondary enrollment ratios in Sub-Saharan Africa in the 1990s.....149
Primary and secondary enrollment ratios in Arab States in the 1990s 150
Primary and secondary enrollment ratios in Asia in the 1990s.....151
Primary and secondary enrollment ratios in Eastern Europe in the 1990s 152
Primary and secondary enrollment ratios in Latin America and the Caribbean in the 1990s 153

ANNEX B: REGIONAL INDICATORS 154

Secondary education: duration, population, enrollment, and pupil teacher ratios in Sub-Saharan Africa in 1990s 155
Secondary education: duration, population, enrollment, and pupil teacher ratios in Asia in the 1990s 156
Secondary education: duration, population, enrollment, and pupil teacher ratios in Arab States in the 1990s.....157
Central and Eastern European secondary education: duration, population, enrollment, and pupil-teacher ratios in 1990s.....158
Secondary education: duration, population, enrolment and pupil teacher ratios in Latin America and the Caribbean in 1990s 159

ANNEX C: REGIONAL PROFILES.....160

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s ...161
Secondary education projects and reforms in cases of Arab States in the 1990s.....168
Secondary education projects and reforms in Asia-Pacific in the 1990s 172
Secondary education projects and reforms in Latin America and the Caribbean in the 1990s 200

ANNEX D: REFERENCES FOR TABLES 206

Acronyms

ABEGS	Arab Bureau of Education for the Gulf States
ADB	Asian Development Bank
ALO	Arab Labor Organization
ASALs	arid and semi-arid lands
BCO	Basic Course Outline
BOG	Board of Governors
BTE	Basic Technology Education
CCC	Common Core Course
CDC	Curriculum Development Center
CNFPDIP	National Center for Teacher Training
CNG	Curriculum Network Group
CTERA	Confederación de Trabajadores de la Educación de la República Argentina
DEBs	District Education Boards
E&T	education and training
ECLAC	Economic Commission for Latin America and the Caribbean
EFA	Education for All
EFTA/EEA	European Free Trade Association/European Economic Area
EGB	Educación General Básica
EMIS	Educational Management and Information System
ERSAP	Economic Reform and Structural Adjustment Program
EU	European Union
FIEL	Fundación de Investigaciones Económicas Latinoamericanas
GDP	gross domestic product
GNP	gross national product
GOE	Government of Egypt
ICT	Information and Communication Technologies
IDA	International Development Agency

IDB	Inter-American Development Bank
IEP	Institutional Educational Project
IES	Institute of Educational Sciences
ILO	International Labor Organization
IMF	International Monetary Fund
IPAR	Institute of Policy Analysis and Research
ISE	Institutul de Ştiinţe ale Educaţiei
IT	information technology
JSS	Junior Secondary School
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
LCC	Local Content Curriculum
MENA	Middle East and North Africa
MOE	Ministry of Education
MOEC	Ministry of Education and Culture
MONE	Ministry of National Education
MPET	Master Plan on Education and Training
NAES	National Assessment and Examinations Service
NCEOP	National Committee on Educational Objectives and Policy
OECD	Organisation for Economic Co-operation and Development
OREALC	Oficina Regional de Educación para América Latina y el Caribe
PGRI	Persatuan Guru Republik Indonesia
PPMU	Program Planning and Monitoring Unit
PVTD	Productive and Vocational Training Department
SAPs	structural adjustment programs
SEEP	Secondary Education Enhancement Project
SERP	Secondary Education Reform Program
SES	socio-economic status
SSS	Senior Secondary School

STEPS	Strengthening Primary and Secondary Education
SUTEBA	Sindicato Unificado de los Trabajadores de la Educación de la Provincia de Buenos Aires
TIQET	Totally Integrated Quality Education and Training
TTPs	Trayectos Técnicos Profesionales
TSC	Teacher Service Commission
UN	United Nations
UPE	Universal Primary Education
USAID	United States Agency for International Development
VET	Vocational Education Training
WMSII	Welfare Monitoring Survey II

I. Overview of Regional Secondary Education Reforms in the Nineties

Until recently, bilateral development agencies (e.g., USAID) and multilateral organizations (e.g., UNESCO, the World Bank) have focused their attention mostly on primary education, vocational education and higher education. However, a number of factors, most notably considerable progress toward providing universal primary education and a global economy that demands higher level knowledge and skills (than is usually acquired in primary schooling) from an increasing number of workers, have contributed to an interest in enhancing access to and improving the quality of secondary education.

Recognizing this shift in international development work in education, USAID's Improving Educational Quality project allocated some of its "core" funding to investigate what is happening in secondary education around the world. A team of researchers, based at the Institute for International Studies in Education at the University of Pittsburgh (IISE/Pitt), took on the challenge of this international study with limited funding. The team was directed by Dr. Clementina Acedo and included a diverse group of five doctoral students (from different countries): Jorge Gorostiaga (Argentina), Leonora Kivuva (Kenya), Nagwa Megahed (Egypt), Simona Popa (Romania), and Minho Yeom (Korea).

The team first undertook a general survey of the types of reforms being planned and implemented at the secondary level in five regions: (Sub-Saharan) Africa, Arab States, Asia and Pacific Region, Eastern Europe, and Latin America and the Caribbean. The results of this survey are presented in this chapter of the monograph. Based on the regional surveys and the resources and contacts available, it was decided to examine in more depth five countries: Argentina, Egypt, Indonesia, Kenya, and Romania. These country cases were studied by one of the graduate students under the supervision of Dr. Acedo and with the assistance of colleagues from the respective countries: Susana Elena Xifra, Mariano Narodowski and Ana Donini (Argentina), Nadia Yossef Kamal and Awad Tawfiq (Egypt), Erry Utomo (Indonesia), Lucy Njeri Kiruthu and Benard Otieno (Kenya), and Stefan Popenici and Mihaela Nistor (Romania). Given that the IISE/Pitt team did not have the luxury of travel funds to conduct the case studies in country, they relied on published documents, information posted on various national and international agency websites, and limited interviews conducted primarily by the country colleague assistants. The team would like to acknowledge the following people for useful comments at different stages of this project: Mark Ginsburg (IISE, University of Pittsburgh), John Hatch (USAID), William Darnell (AED), Don Adams (University of Pittsburgh), Gituro Wainaina (World Bank, Kenya), Carlos Herran (IDB), Yael Duthilleul (World Bank) and Maureen McClure (University of Pittsburgh). The country case studies are presented in Chapters 2-6 of this monograph.

A. Secondary Education Reforms in Sub-Saharan Africa

In general, secondary education in Africa seems to have been neglected by international donors, for there are not many projects on secondary education and existing projects include primary or higher education. This situation is consistent with Colin Power's statement: "We in UNESCO have put much emphasis into basic and higher education, and have neglected the young people in the middle" (UNESCO, 1999).

In Africa, this issue may be prompted by the fact that the continent is still grappling with the problem of illiteracy and is thus emphasizing basic education. Overall, due to the need to produce a skilled workforce, there is a new effort to improve secondary education. Also, expanding and strengthening primary education creates a pressure and a need for expanding secondary education. There is a move towards developing secondary education, but at as low a cost to governments as possible. To achieve this, with an additional goal of enhancing access, most countries have moved towards private forms of secondary education. In the past, it was the duty of the government to provide secondary education to all children. However, due to demographic growth and financial constraints, most African governments have been unable to provide secondary education adequately. To cope with the demand, governments have encouraged the creation of private secondary schools, a move that was hardly supported in the 1970s and 1980s.

Among the World Bank projects for education in Sub-Saharan Africa, only one is dedicated to secondary education per se (the Malawi Secondary Education Project). The rest either include primary and secondary education or the whole educational sector. Some projects, though, tend to lean more toward secondary education than any other sector (e.g., the cases of Burkina Faso and Mauritius), which shows that there is a need to undertake secondary education reform. Most projects are concerned with access, equity and quality (Benin, Malawi, Rwanda, Burkina Faso, Tanzania, Mozambique, Togo, Guinea, Mauritius, Cote D'Ivoire, Ethiopia, and Lesotho); others include a focus on teacher education and curriculum change (Namibia, South Africa, Tanzania, and Kenya). Africa is also concerned with improving girls' access to education, and therefore many projects focus on gender issues in education.

AIDS has claimed very many lives in Africa. Governments have had to deal with the AIDS scourge by spending considerable amounts of money on treating and caring for AIDS patients and their families. This has prompted many governments to include a component of AIDS education in the curriculum, especially in secondary schools (e.g., Malawi and South Africa). Even those that do not call it AIDS education are emphasizing "character education" and "values education." All of these aim at educating the youth about the dangers of AIDS and other STDs in order to create awareness with the hope of minimizing or eradicating the spread of such diseases.

Many African countries have also been working hard to reform their secondary education in the last decade in order to suit their own needs. South Africa, for example, has focused on equipping her citizens for the 21st century. In its 5-year plan for the years 2000-2004, the Ministry of Education (MOE) has outlined a series of educational goals under the motto "Tirisano," which means "working together" or "collaboration." Through working together, they are aiming at implementing new education policies in areas such as curriculum, teacher education, and examinations. Of equal importance are new policies concerning adult basic education and special education; restoring buildings and physical resources; continuing the process of desegregation and democratization in schools; and paying attention to early childhood care and AIDS education. Here are a few more examples:

- Zimbabwe has had to grapple with problems concerning teacher training because in 1997, only 77% of their teachers had been trained. Primary education has been the main goal since Zimbabwe achieved independence only 20 years ago.

- In the last decade, Tanzania has been carrying out reforms on teacher training, physical facilities, supply of materials, and cost sharing, among others. Cost sharing (which means having parents and communities share the cost of providing education with the national government) was introduced in most African countries due to the structural adjustment programs (SAPs). This practice has been strongly criticized when implemented for basic education and as a consequence, some international organizations are now subsidizing the cost to parents.

- Namibia became independent since 1990 and, since then, its education system has been aimed at renewal, nurturing the future, and focusing on change while having continuity.

- Since 1990, Uganda has focused on rehabilitating buildings, improving the efficiency and quality of education, teacher training, and curriculum upgrading.

- Kenya has an ongoing project known as STEPS (Strengthening Primary and Secondary Education), which focuses on the quality of the primary and secondary stages of schooling. Kenya is also in the process of restructuring its educational system (see Chapter 5),

Overall, Sub-Saharan Africa is experiencing significant growth in secondary education. There is also a general shift from an emphasis on vocational training to general secondary education (World Bank, 2000).

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B. Secondary Education Reforms in the Arab States

In the 1960s, Arab countries began reconstructing their education systems and other cultural aspects of their societies. They have "invested heavily in education, transforming it from a privilege into a right. As a result, most Middle East and North Africa (MENA) countries are now approaching universal primary school enrollment; the major exceptions are Morocco, Saudi Arabia, and Yemen, where access to primary schools remains problematic, especially for girls" (Eeghen, 2000). The substantial commitment to education of national governments in this region is reflected in their levels of spending on education, which now average 4% of the gross domestic product (GDP) and 15% of total government spending. These levels of spending are somewhat above those of comparable developing countries and are on a par with those of high-performing Asian economies. In some important respect, this investment has paid off (Eeghen, 2000).

Literacy, life expectancy, infant mortality, and many more social indicators have improved dramatically over the past 30 years. Yet, the broad-based economic recovery of recent years has not fully met the major challenges facing the MENA region, including high unemployment against a background of rapid labor force growth and important disparities in socioeconomic welfare and opportunities (World Bank, 1998). In addition, in terms of overall economic growth and increasing per capita income, the payoffs from education in the region have been disappointing, especially since the mid-1980s. Unemployment has been on the rise for over a decade now. In Algeria, Jordan, Yemen, the West Bank, and Gaza, the unemployment rate is estimated to be about 20% of the workforce, which is very high by international standards (Eeghen, 2000). The Arab Labor Organization (ALO) has announced that the present number of unemployed in the Arab world is around 12 million (cited in Al Rashed, 1997). "Real wages have also declined, and this decline has been reflected in a drop on the expected rates of return to education: the wage premium for an additional year of schooling is much lower for younger than for older workers. As a result, education has become a less attractive investment option for parents and young people, which is troubling at a time when Middle East and North Africa region's economies require more and better skills" (Eeghen, 2000).

> In Middle East and North Africa region state led economic systems have prevented education from paying off in terms of high rates of economic growth. Greater access to education increased the supply of graduates, who were initially absorbed by public sector expanding in the aftermath of decolonization. But over time, as graduates continued to flood the job market, it was not the state's demands for skilled workers but the pressing supply of graduates that caused the state to absorb them. Jobs were created to avoid unemployment despite the threat – and now the reality – of a large and under-productive civil service. These distortions in labor market in turn affected educational system, which continued to teach primarily the skills needed for public-sector employment (Eeghen, 2000).

The core problem in the MENA region is that economic growth and educational reforms have been geared toward quantitative goals. These goals were implemented successfully in the economic sector, where higher rates reflected economic progress, but the education sector is different. Despite the higher rate of enrollments and the growing number of graduates, the educational system did not improve the quality and performance of its graduates. In addition, the education system failed to match the skills of its graduates to job market requirements. Accordingly, the need for educational reform in the region during the 1990s has grown urgent. These reforms should focus primarily on the relevance and quality of education.

Since the 1970s, educational reform was directed to combat the high illiteracy rate in the region by concentrating on the primary and lower secondary levels and by implementing compulsory attendance of these levels. This educational reform is known as the implementation of the basic education system. In contrast, during the 1990s, education reform policies in most of the Arab states have focused on the quality of and equity in education.

According to the 1997 World Development Report, Arab countries in MENA could be divided into low-income economies (Yemen), lower middle-income economies (Algeria, Egypt, Syrian, Jordan, Lebanon, Morocco, and Tunisia), upper-middle-income economies (Oman and Saudi Arabia), and high-income economies (Kuwait and the United Arab Emirates).

Arab countries of different levels of development also have different sources of funding for education. These economic differences among Arab countries reflect the funding of educational reforms in the region. In Qatar and Saudi Arabia, educational reforms are nationally and regionally financed; that is, they rely on the national governments' MOEs or on the Arab Bureau of Education for the Gulf States (ABEGS). In the non-Gulf countries, such as Egypt, Lebanon, Algeria, Morocco, Yemen, and Jordan, the national governments' MOEs and the World Bank support the funding of educational reforms.

The governments of MENA countries have traditionally acted as key players in their economies, investing directly in their industrial capacity and financial institutions. Between 1970 and 1990, petroleum revenues permitted many governments (especially those of Gulf countries) in the region to maintain very high levels of public expenditures in education relative to other low- and middle-income countries. In the 1990s, however, fiscal constraints, changes in the economic philosophy of governments, and increasing globalization caused a shift in the MENA region toward a relatively greater reliance on the private sector to promote growth, generate employment, and improve standards of living. As the private sector expands, the role of the state is changing from that of a key player towards a more indirect role, that of facilitating the development of competitive private markets (World Bank Group, 2000).

One of the privatization movement's goals has been to open new job opportunities for the youth. However, in the mid-1990s, moves toward privatization could not solve the unemployment problem in the MENA region. Such moves failed to improve the quality of education, especially with respect to secondary vocational and technical education. Therefore, during the 1990s, the educational reforms in Egypt, Lebanon, Jordan, and Yemen have been directed towards creating a strong institutional framework for this type of schooling.

Yet, unemployment is not the only issue in the MENA region; one of the purposes of the educational reform in Morocco, Yemen, Saudi Arabia, and Tunisia is to improve access to upper-basic and secondary school. Access to further education, especially for girls, remains a problem in the whole region.

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C. Secondary Education Reforms in the Asia-Pacific Region

In recent years, most countries in the Asia-Pacific region have made substantial progress toward the goal of universalizing primary education. Accordingly, more and more countries are now paying greater attention to the reorientation and expansion of their secondary education system. However, secondary education is a weak link in the education chain in many countries, even though an increasing number of children are going on to secondary schools. Efforts are being made, therefore, to ensure that the education provided is an appropriate one which best meets the needs for relevance, quality and labor force requirements (NIER, 1995, pp. 1-4).

Since 1960, secondary education in Asia has expanded rapidly in response to an increasing demand for skilled workers, economic growth and new private sector demands. Different countries have chosen various approaches to developing the structure of secondary education, including diversifying the curriculum; financing institutions and student support; and assessing student-learning performance.

With respect to secondary enrollment rates, by 1980, countries such as Afghanistan, Bangladesh, Lao People's Democratic Republic, and Pakistan had at or below 20% of the age-cohort. At the same time, countries such as China, India, Malaysia, and the Philippines were enrolling 35% or more in secondary schools. By 1990, the Republic of Korea, China, Malaysia and the Philippines had secondary school systems enrolling one-half of all age-eligible youth, the same enrollment level from which rates took off among developed countries in the 1960s (Baker and Holsinger, 1997; Su, 1999). According to the 2001 World Development Indicators, the gross enrollment ratio from 1980 to 1997 increased from 29% to 56% in Indonesia, from 64% to 78% in the Philippines, and from 42% to 57% in Vietnam. In the case of China and Thailand, the ratio increased over 20% during the same period, from 46% to 70% in China and from 29% to 59% in Thailand. Almost all countries in the Asia region have experienced substantial growth in secondary school enrollments over the past decade (The World Bank, 2001).

In regards to the quality of secondary education, Asian countries have focused on curriculum reform: "A principal motivating factor for curriculum reform is the desire to design educational programs that will more adequately prepare young people for the job market within the existing economic climate, while providing the human resources necessary to ensure sustainable national development" (Byron, 1999, p. 58). In order to realize the major goals of curriculum reform, Asian countries have developed detailed strategies for secondary education: "improving the quality and scope of vocational education (Indonesia and the Philippines); strengthening science and technology education; developing competence in information technology (IT) skills by introducing or expanding the use of IT in the classroom (all nations in Asia); focusing on the teaching of a wide range of cognitive, social and personality skills so as to develop the capacity for flexibility, problem-solving, creativity, initiative and lifelong learning" (Byron, 1999, p. 58).

The reform and renewal of secondary school curricula is clearly a priority for all the countries. They recognize this process as integrated with the improvement of education. Many are presently implementing curricular reforms (Bangladesh, Indonesia, Myanmar, the Republic of Korea, Sri Lanka, and Vietnam) or are preparing for major curricular changes (Thailand and Maldives); others are monitoring or evaluating the impact of recent reforms (Bhutan, Nepal, India, and the Philippines). Malaysia states that it is involved in an ongoing process of curriculum reform and Pakistan is engaged in four-year curriculum reform cycles. The main focus of reform in a number of countries has been on primary education (Bangladesh, Indonesia, India, Maldives, and Thailand), although most countries are also attempting to improve the quality of secondary education, making it more relevant to the future needs of pupils and reducing an overly academic orientation (Byron, 1999, p. 58; IBE, 1999, p. 2).

As for government expenditure on secondary education, the 1994 Asian Development Bank (ADB) study reported that in 1990, public expenditure in Asia represented less than 10% of the world's public expenditure on education in that year, despite the fact that developing Asian countries enrolled 50% of the world's students and accounted for more than 63% of the world's total population. On average, national public expenditure on secondary education in the region accounted for a little over 1% of the GDP and about 5% of all government expenditure (NIER, 1995, p. 8).

Throughout the Asia-Pacific region, widespread concerns have been expressed about the secondary education reform issues in the 1990s. These education issues have important implications for the content, process and administration of secondary schooling: promoting basic education for all; encouraging teacher education and development; focusing on the education of women, girls and the disadvantaged; improving quality and relevance of education; providing education for the world of work; finding new educational delivery systems, etc.

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D. Secondary Education Reforms in Eastern Europe

The great upheaval in the politics and the economy of Eastern Europe over the last ten years has had a major impact on education. Under "communism," people had free access to what they perceived to be – and, to a great extent, was indeed – high quality education throughout the region. For example, at the start of the transition in 1989, adult literacy was virtually universal. Participation and completion rates for students of both genders were high at all levels of education. In addition, there was a sustained acquisition of scientific information. However, as a World Bank report states, "the rules of the game that resulted in good educational outcomes under Communism are changing. There are fault lines beneath the surface of education systems […] that unless repaired, will ultimately undermine these systems" (World Bank, 2000). In addition, the demands on the school systems have increased, as most Eastern European countries have applied to join the European Union (EU). Not only do they actually need to restore and adapt their educational systems to the changing needs of the market economy, but they are also "required" to reform their educational systems as a precondition for their acceptance into the EU.

Changes in Eastern European secondary education cannot be separated from programs such as the EU's Phare (in vocational education) or World Bank projects, as well as from bilateral schemes sponsored by Western European and North American governments and/or private foundations (especially Soros).

One can point out at least four main characteristics of the educational change in Eastern Europe: 1) depolarization of education (i.e., the end of the "communist" ideological control of the system); 2) breaking down of the state monopoly in education by allowing private and denominational schools to be established; 3) increased choices in schooling options; and 4) decentralization in the management and administration of the education system (in particular, the emergence of school autonomy) (Cerych, 1997). Remarkable progress has been made in reforming areas such as curriculum, textbooks, and pedagogy: previously dominant political and ideological references were deleted from course content and textbooks; curricula have been updated; a private textbook industry has emerged vigorously; and significant changes were made in teacher training and evaluation practices. Other areas are fraught with many difficulties and are, accordingly, more difficult to improve. They include: rationalizing the number of institutions, establishing coherent education legislation, redistributing educational property, and redefining local finance and administrative control (Heyneman, 1995, p. 25).

Remarkably, Eastern European countries continue to implement their reforms at a brisk pace and at a time of economic and social instability. Consequently, the emerging educational systems are confronted with grave new problems. Many families have now to cope with a devastating and mounting deterioration in their material conditions. Rising unemployment and poverty have put enormous burdens on families who often have limited resources to devote to their children's

education. Unequal access to existing educational provision has become a major source of concern for all Eastern European countries.

In addition, budgetary constraints have had a negative impact not only on access to, but also on quality of, education, as Eastern European countries have witnessed a decline in the mobilization of resources for education. For instance, the Romanian Education Law of 1995 stipulated that 4% of GDP should be spent on education, yet to date the Government has not managed to achieve this. Lack of funding "erodes" the system in numerous ways - such as shortage of teaching materials and modern equipment, degradation of facilities, but also motivation of teachers.

Issues related to equity, equality of opportunity, quality and efficiency, accommodation of demographic changes, the growing social and economic inequalities among students, scarcity of funding, and the lack of financial and professional support for teachers pose constant challenges to the education systems and should be taken into account by the reformers.

However, the completion of educational change is nowhere in sight and, as Mitter (1992) indicates, its outcome is still unpredictable. The various approaches to educational reform taken up by Central and Eastern European countries are bound to be partly shaped by endemic conditions and inherent traditions and mentalities, as well as by an irreducible aversion towards their recent past – overshadowed by excessive centralism – and by their aspiration to join the great family of advanced/developed countries.

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E. Secondary Education Reforms in Latin America and the Caribbean

During the 20th century, educational systems in Latin America achieved relatively high rates of enrollment at the primary and secondary levels, but – at least since the 1960s – there have been questions about the quality and relevance of instruction (Torres and Puiggrós, 1995). Arnove et al. (1997) note that some countries have showed a "bimodal distribution of enrollment," where large numbers of students from poor backgrounds do not even attend or complete primary schooling, while a substantial number of students – most from the upper-middle and upper classes – are able to attend universities (p. 143).

The 1990s in Latin America was a decade characterized by the democratization of political systems, some economic growth, and yet increasing social inequalities, manifested in "growing distinctions between schooling for the poor and for the rich" (Torres and Puiggrós, 1995, p. 22). During these years, the official discourse reincorporated the idea of the centrality of education and knowledge for development, as illustrated by the document of the Economic Commission for Latin America and the Caribbean (ECLAC) and UNESCO (1992), *Education and Knowledge: Basic Pillars of Changing Production Patterns with Social Equity*.

At the beginning of the 1990s, some countries in the region (Argentina, Bahamas, Chile, Cuba, Guyana, Trinidad, Tobago, and Uruguay) had high secondary enrollment ratios, while most Central American nations and other low-income countries, like Haiti and Paraguay, showed relatively low ratios. During the decade, Brazil appeared as the country where the most significant increase of enrollment took place; countries like Mexico, Colombia, Paraguay, and Belize also showed significant growth in enrollment rates.

With regard to the quality of secondary schooling throughout the region, it has been argued that "learning in secondary education is inadequate by international standards; teachers have inadequate subject knowledge, poor pedagogy and are often unmotivated; curriculum is encyclopedic and out of date; learning materials are scarce and inadequate; schools rarely have a sense of mission and identity; and school directors have little authority and recognition" (IDB, 2000, p. 15).

Since the end of the 1980s and the beginning of the 1990s, almost all countries in the region have implemented some kind of reform or innovation affecting secondary education. Many of these efforts have been comprehensive reforms of the educational system involving initial, primary and secondary sub-sectors (e.g., in Argentina, Bolivia, Chile, El Salvador, and Paraguay).

Secondary education reform initiatives have mainly addressed the aspects of structure, curriculum, teacher training, student evaluation, the development of technological infrastructure, and management (particularly decentralization at the school level). With regard to the structure of general secondary

education, in some countries lower secondary has become compulsory (and more integrated to primary) while upper secondary education has been reformulated in different ways. At least 16 countries have introduced changes in the curriculum (in many cases towards a common or basic curriculum), usually accompanied by new teacher training policies. In addition to the need to adapt to new curriculum designs, training systems have been modified to foster new teaching approaches and methods (e.g., student-centered), incorporate new technologies, and develop management capacities at the school level.

Another element to consider is change in secondary technical education, which in many countries stands as a separate system of schools. Brazil, Mexico, and Uruguay, for example, have initiated broad reforms of secondary and post-secondary technical education, including revising aspects of the curriculum, training teachers, and enhancing technological equipment in schools.

Regionally, there is a trend for low-income countries to focus on the expansion and upgrading of lower secondary education while more developed or industrialized countries implement reforms at the upper secondary level and in technical secondary education.

Improving quality appears as the most common stated purpose of reforms. Other common goals are: increasing relevance and equity, granting access to disadvantaged groups, and developing links with (and responsiveness to) the productive sector and the labor market.

The World Bank and the Inter-American Development Bank (IDB) have played significant roles in the reforms, providing funding and technical support to most of the implemented projects. A World Bank document (1999) states that expanding access to upper secondary education and making secondary education more relevant to the realities of the labor market are among the main challenges that Latin American countries currently face. "Increasing the number of people who acquire secondary schooling is vital for increasing human capital" (p. 33). In addition, the World Bank stresses the role of "technology as a tool for educational improvement" in both primary and secondary schools, particularly the introduction of computers in classrooms (p. 46).

The Inter-American Development Bank (IDB) (2000) recommends targeting access to the poor, changes in the content of instruction (including new learning goals like civic responsibility in a democratic society and understanding of the role of technology in society), updating pedagogy and teacher training, and increasing the authority and qualifications of school directors.

UNESCO/OREALC (Oficina Regional de Educación para América Latina y el Caribe) (1997), on the other hand, points to the identity crisis of secondary education and the need of debating its role and purpose. A document of OREALC (1998) recommends changes in secondary education in teacher training, giving schools more autonomy (i.e., implementation of institutional educational projects), and

the evaluation of students and teachers. A number of critical questions regarding secondary education remain to be addressed: "Must all students be prepared with higher education in mind? Is it essential to preserve the two parallel educational paths, one leading to the University and the other to professional, non-university life? Could both be blended into one?" (UNESCO/OREALC, 1997, p. 5). Other questions focus on how to combine education for citizenship, training for work, preparation for being a lifelong learner, and how to avoid discrimination and irreversible tracking of students (UNESCO/OREALC, 1998).

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II. The Reform of Secondary Education in Argentina during the 1990s

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Abstract

The reform of secondary education has been a fundamental part of national educational policy in Argentina since the beginning of the 1990s. Along with the decentralization of responsibilities to provinces and a new structure of primary and secondary education, changes have affected the areas of curriculum design, teaching methods, teacher training, school management, and information and evaluation systems. This study describes the main policies on secondary education implemented during the last decade, including their objectives and rationales. Focusing on how the reform can be seen to relate to issues of access, quality and equity, the study presents an analysis of its implementation, discusses some of its effects, and compares the views of government and different groups about its appropriateness, effectiveness, and sustainability.

A. Introduction

This paper examines the reform of secondary education in Argentina during the 1990s.[2] It provides a brief description of the main elements of the reform, as well as a discussion of the implementation strategies and problems. We highlight different views about the effects of the new policies, particularly as they relate to two of the main objectives of the reform: increasing access for students from economically disadvantaged families and improving the quality of academic and technical secondary education. This study is based on an extensive review of official documents and secondary sources as well as on information provided by key informants.[3]

The reform of secondary education, which involves the redefinition of its structure, its educational functions, and its role in contributing to national development and social integration, is gaining high

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[1] We are grateful for the valuable feedback provided to previous versions of this paper by: Ana Donini (Universidad Nacional de San Martín), Mark Ginsburg (University of Pittsburgh), John Hatch (USAID), Mariano Narodowski and Milagros Nores (Centro de Políticas Educativas, Fundación Gobierno y Sociedad), and MinHo Yeom (University of Pittsburgh).

[2] The paper focuses on the reform that the Menem administrations (1989-1999) carried out. In December 1999, a center-left coalition replaced the Peronist party in the presidency of Argentina.

[3] Key informants included: Daniel Agostino (Student Scholarships Program, National Ministry of Education); Inés Aguerrondo (International Institute of Educational Planning-Buenos Aires); Marta Andrade de Lago and Javier Rubio (National Center of Educational Information, National Ministry of Education); Verónica Batiuk, Silvia Finocchio, Víctor Meckler, and Daniel Pinkasz (Curriculum Management and Training Program, National Ministry of Education); Guillermo Goldsman; Margarita Poggi (Former Director of Educational Planning, City of Buenos Aires); and Cristina Tomassi (Undersecretariat of Basic Education, Province of Buenos Aires).

priority in Latin America (Braslavsky, 2001; Wolff and Castro, 2000). Although there are important differences among Latin American countries, in general, "the region is deficient in the availability of places in secondary education, as well as in the provision of quality, efficiency and equity. The structure and often the content of secondary education is outdated" (Wolff and Castro, 2000, p. 5).

In the case of Argentina, a comprehensive reform of the educational system initiated at the beginning of the 1990s proposed profound changes in the organization of secondary education, including: the decentralization of the administration of national secondary schools to provinces; the establishment of a new structure that extends compulsory education from seven to ten years and creates a common upper secondary school with different orientations; the establishment of a new mechanism of curriculum design; the development of evaluation and information systems; the re-training of teachers aiming at upgrading subject knowledge and teaching methods; and the development of a new model of management that encourages school autonomy.

B. The Argentine Education System, the Context, and the Rationales for Secondary Education Reform

Since the beginning of the 20th century, the structure of the Argentine school system was typically organized around a compulsory primary education of seven years beginning at the age of six, and secondary education system with schools usually offering five years of instruction. In 1905, a law authorized the federal government to create and administer its own schools within the provinces, establishing a national system besides the various provincial systems of primary and secondary schools. Initially, secondary education had the objectives of preparing students for teaching at the primary level or for entering the University, but through the years, new types of secondary schools were created, most notably technical schools with a vocational orientation.[4]

During the 1980s and with the reestablishment of democratic rule – which brought about greater responsiveness to the demands for access through the elimination of entrance exams and the construction of new buildings for secondary schools – a remarkable expansion of secondary education took place.[5] The secondary net enrollment rate went from 33.4% in 1980 to 53.5% in 1991.[6] Regional

[4] In 1986, 75 % of secondary students were enrolled in the general (more academic) tracks (Bachiller and Comercial), around 20 % in technical schools, and around 4 % in the more specific tracks (like agricultural or artistic schools) (Aguerrondo, 1996, p. 110).

[5] In December 1983, a democratically elected government took office, an event that would mark the end of more than fifty years of alternation between military and democratic governments.

[6] Enrollment rates relate to enrollment in a particular level of education to the age cohort that commonly would be expected to be participating in that particular level of education. Gross enrollment rates compare all enrollments regardless of age (thus including under- and over-age students) to the "normal" age cohort; net enrollment rates compare only the enrollments from the normal cohort to the total population of that cohort.

differences, however, remained high: in 1991, the city of Buenos Aires showed a *net* enrollment of around 72% while the figure for a province like Chaco (in the less-developed northeast region) was approximately 38% (Tiramonti, 1995).

The reestablishment of democratic political institutions also allowed for a more open and broader-based discussion of the structure and content of education. With the Pedagogic Congress (Congreso Pedagógico, 1986-88), which involved teachers, parents, community members, students and representatives of different organizations, "an effort began to build consensus and to seek out or create new policies and action strategies" (Braslavsky, 1998, p. 299). As a result of this effort, the government began to work on the design of a new law of education.

In the last years, Argentina has experienced a profound reform of the educational sector as part of a general restructuring of the state, as well as of attempts to "modernize" the country and adapt to international economic competition. After the "lost decade" of the 1980s, marked by the crisis of the external debt, economic stagnation and hyperinflation processes, the government started a deep economic reform, including the opening of markets to international trade, the privatization of state-owned companies and the deregulation of economic activities. Argentina experienced high rates of economic growth during the early 1990s (averaging more than 8% between 1991 and 1994), but the decade ended with a situation of recession and uncertainty. On the other hand, unemployment rose to 17% by 1996, and as a World Bank (2000) document notes, "poverty levels have stubbornly stayed high despite rapid economic growth… rising income inequality and high unemployment, especially for the unskilled, [indicates] that the benefits of growth have not been widely shared" (p. 3). The influence of international lending organizations has been very important in the process of economic restructuring, and the World Bank and the Inter-American Development Bank have participated in the financing of educational reform.

Educational reform was supposed to introduce changes in a public school system considered to be in crisis.[7] There was a general agreement in the need for organizational and instructional innovations to improve quality and to provide students socially meaningful knowledge (Braslavsky and Tiramonti, 1990; Frigerio, 1995). National and provincial ministries of education appeared to lack the capacities to govern the system and affect the work of schools (Braslavsky, 1998). The fragmentation of the system implied great inequalities, as schools varied in the quality and type of services they offered to different groups of students. During the 1980s, the combination of increases in enrollments and lack of investment in the educational system resulted in overcrowded schools and classrooms and accentuated the sense of crisis.

[7] Private schools play a significant role in Argentina. For example, in 1994, almost 30% of secondary students were enrolled in private institutions (Ministerio de Cultura y Educación, 1996a).

The *gross* enrollment rate became more stable in the 1990s after the remarkable growth of the early 1980s (see Table 1). By the end of the 1990s, the secondary graduation rate was around 52% (World Bank, 2000). The repetition rate was 9% for 1997, while the dropout rate for 1996 was 42% (Experton, 1999). It is also important to note, again, that there are significant variations among provinces, and that repetition and dropout rates are particularly high among students from low-income families.

Table 1. Secondary education gross enrollment ratios in Argentina (1970-97)

Year	Gross Enrollment Ratio
1970	44.4
1975	53.8
1980	56.2
1985	70.2
1990	71.1
1995	72.7
1997	73.3

Source: UNESCO Indicators, in www.unesco.org/education/information.

Some of the main problems affecting secondary education at the beginning of the 1990s were: the high dropout and repetition rates (particularly during the first and second years of secondary school), outdated curriculum and instructional methods, and the limited enrollment of students of low socio-economic status (Braslavsky, 1999; World Bank, 1995). Technical education especially suffered a low level of investment in educational resources as well as a lack of relevance of educational contents (Experton, 1999). The coexistence in the provinces of a national and provincial system of secondary education implied inefficiencies and conflicts regarding aspects like financing and the transfer of students from one system to another. In addition, the administration of the *national* secondary system was seen as too centralized as well as lacking effective supervision over schools (Morduchowicz, 1999).

C. Educational Reform During the 1990s

The two main steps in the reform of education were the transfer of all national secondary schools and teacher training institutes to the provinces in 1992-93 (Law No. 24049) and the enactment in 1993 of the Federal Law of Education (Law No. 24195), the first general law of education in the history of

Argentina.[8] The Federal Law of Education (along with the Law of Higher Education enacted in 1995) spelled out a comprehensive reform of the whole educational system.

At the beginning of the 1990s, around 60% of public secondary schools were under national administration. However, there were significant differences between provinces. In some provinces (e.g., La Pampa, San Juan, Tucumán), secondary education was mainly provided by private and public national schools, and the provincial sector was very small. In provinces like Chaco, Rio Negro and Santa Cruz, less than 15% of secondary schools depended on the national government (Tiramonti and Braslavsky, 1995, pp. 61-62).

The transfer of all national secondary schools and post-secondary institutions to the provinces in 1992 – completing the process initiated by the military government in 1978 with the transfer of national primary schools – was mainly driven by financial reasons (Filmus, 1998; Senén González and Arango, 1997).[9] Provinces agreed to receive the national secondary and post-secondary systems, but were not given specific resources to face the economic effort that the transfer represented. The national government argued that from 1991 significant increases in tax collection implied more resources for the provinces, which allowed them to finance the administration of the transferred schools (Senén González and Arango, 1997).

In addition, many provincial administrations lacked the necessary technical expertise and resources to manage the new system (García de Fanelli, 1997; Puiggrós, 1997). In some provinces, the decentralization was followed by an actual reduction of teachers' salaries in the context of a fiscal crisis accelerated by the burden that the transfer of schools implied (Filmus, 1998; Senén González, 1997).

The Federal Law of Education (1993) established the responsibilities for each level of government as well as the coordination mechanisms. The national Ministry of Culture and Education is now responsible for evaluating and monitoring the educational system, ensuring adherence to national policies, providing financial and technical assistance to improve the quality and equity of the system, and developing a federal management information system. The 23 provinces and the city of Buenos Aires (federal district) have the responsibilities of funding, administration, and management of schools, including the hiring and training of teachers.[10] The Federal Council on Culture and Education (*Consejo Federal de Cultura y Educación*) is the organization in which the national policy and its implementation are

[8] Different laws and decrees, dictated by the Congress and the executive power since the end of the 19th century, regulated the system before 1993.

[9] The transfer of secondary schools to provinces was one of the measures that the national government had committed to in the negotiations for external credits with the International Monetary Fund between 1989 and 1991 (Senén González and Arango, 1997).

[10] The modernization of provincial systems of educational administration was the focus of a specific program implemented from 1996 and partially funded by the World Bank (Decibe, 1998).

discussed with the provinces. The national and provincial ministries of education are part of this organization.

The new model that emerges is one of a stronger center with few (but strategic) responsibilities (e.g., the planning of general policies and evaluation of the system). Another important element of the law was that it established an increase of the resources for the financing of education from national and provincial governments: educational budgets were to be doubled gradually with an annual increase of 20%.

According to Decibe (1998, pp. 3-4), who was one of the ministers of education during the reform, the decentralization of secondary schools and the new division of responsibilities aimed at strengthening federalism and local government institutions, including the schools. In this process, she argues, the national government should keep the capacity to lead policies, given the links between education and the possibilities of economic and social growth.

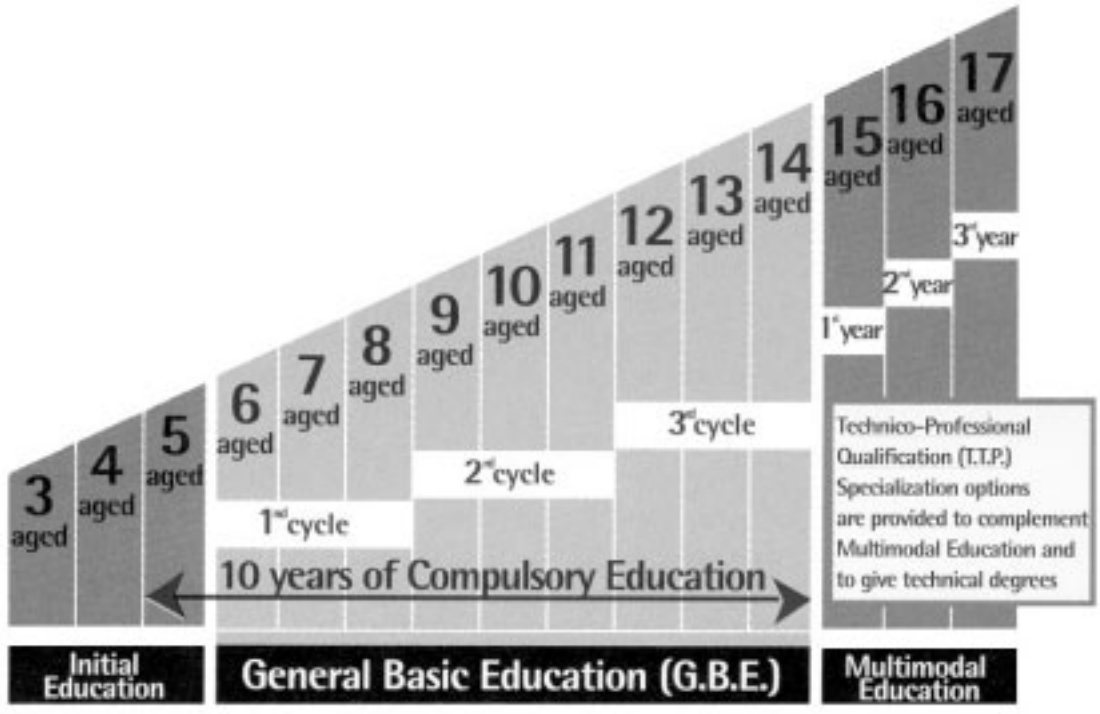
What follows is a description of the main components of the reform that were prompted by the Federal Law of Education, including: a new structure of the educational system, new systems of curriculum design, teacher training, information and evaluation, a new model of school management, and the compensatory programs.

1. THE NEW STRUCTURE OF THE SYSTEM

The Federal Law of Education (1993) created a new academic structure which starts with an initial level up to the age of five, continues with a nine-year stage of *Educación General Básica* (Basic General Education), or EGB, plus three years of *Polimodal* Education, and ends with the higher-education level (comprising universities and tertiary institutions). Compulsory schooling comprises a ten-year period: the last year of the initial level (5-year-old children) and a nine-year stage corresponding to the EGB, divided in 3 cycles of three years each. Secondary or middle education can be considered to include now the EGB3 (7th, 8th and 9th grades or years) and *Polimodal* (or Multimodal) cycles (see Figure 1).

The creation of the EGB3 addresses what some considered an abrupt change for students in the transition from primary to secondary school (e.g., Braslavsky, 1999), and should respond to the specific needs of young teenagers (Ministerio de Educación, 2000a, p. 6). An IDB report holds that the third stage of the EGB system constitutes the bottleneck to improve access and equity in the Argentine education system. This document reports dropout rates of 20% and 15% for 8th and 9th grade, respectively, and that 32% of students of low socio-economic status (SES) drop out of school between the ages of 13 and 17 (Herran, et al., 1998).

Figure 1. The new structure of the Argentine education system



Source: National Ministry of Culture and Education (Ministerio de Cultura y Educación, 1997)

The *Polimodal* lasts 3 years and offers a common general education (comprising at least 50% of the instructional time)[11] along with five different orientations or modalities (around 30% of instructional time):[12] humanities and social sciences; natural sciences; economics and administration/management; production of goods and services; and communication, arts and design. Each school can offer one or more modalities and students have to choose one modality. The *Polimodal* should address with equal weight three different aspects of the education of students: preparation for citizenship and ethics, preparation for work, and preparation for further studies (Consejo Federal de Cultura y Educación, 1996).

Professional technical training is offered through *Trayectos Técnicos Profesionales* (TTPs), or Technical Professional Qualifications. These courses of study can be followed with or after the Polimodal, and grant the title of "technician" in different areas, including not only those linked with construction,

11 The Federal Council established 5 hours of instructional time per day and 180 days of class per year for the *Polimodal* cycle.

12 The content of the remaining 20% should be determined by each school according to its institutional project (see below the section on the new model of school management).

agriculture and industry sectors, but also others like public health, computer science, tourism, etc. (Ministerio de Cultura y Educación, 1997). Provinces should decide how to organize the supply of different orientations and different technical specializations, taking into account local needs and school institutional capacities.

According to Braslavsky (1999), the organization of the *Polimodal* and the technical specializations respond to the need for training students in a way that enable them both to find a first job and to adapt to a constant changing job market. At the same time, they offer a common educational experience along with enough flexibility to integrate the content of training to the characteristics of local communities and contexts. In this way, the new organization of secondary school, including the technical component, seems to aim at finding a balance between a general education that enables students to advance to higher levels of instruction and a technical-professional training that prepares for specific jobs.

In 1995, the National Ministry created the Institute of Technological Education (INET), which has organized the implementation of technical specializations by adapting the centrally defined curricular frameworks to local realities, integrating them to the *Polimodal*, and identifying training needs for teachers in technical areas (Experton, 1999, p. 27). One of the main functions of the INET is to respond to the needs of the productive sector. It is argued that a new relationship of education-employment is being established by the creation of more effective mechanisms of communication and debate among teachers, educational officers, and representatives of workers and businessmen (Ministerio de Cultura y Educación, 1997).

The Federal Council established that the new structure should be completely in place by the year 2000, allowing each province to decide on how to implement it (e.g., more or less gradual, use of pilot schools, etc.).[13] The EGB3 has been gradually implemented in almost all provinces since 1996. Regarding the *Polimodal*, the provinces of Córdoba and Buenos Aires started its full implementation in 1999, while most provinces have a slower pace.

2. CURRICULAR REFORM

The curricular reform has been another important initiative encouraged by the national government since 1994. The national Ministry and the Federal Council worked out a general framework for all of the elementary and high schools in the country, aiming at giving coherence to the educational system. Traditionally, provinces presented a great heterogeneity of educational programs (Gvirtz, 1995) and, for each type of secondary education, there was a common curriculum which was adapted further at the school level, resulting in an "anarchic diversity" (Braslavsky, 1999, p. 84).

[13] Under the new national administration (Dec. 1999-on), this deadline was extended to the year 2003.

There are three levels in the design of the new curricula. At the more general level, the Federal Council sets the general objectives and guidelines (Common Basic Contents or "contenidos básicos").[14] At the provincial level – including the city of Buenos Aires – more specific objectives and guidelines are developed which take into account the reality of each province. The final design of the curriculum at the school level involves principals and teachers making decisions on content and instructional approaches. The Federal Council has stated that the school is the fundamental unit for the specification of the educational project, so the nation and the provinces should leave to the schools the responsibility of developing a curriculum that responds to the local realities and needs ("Criterios para la planificación de Diseños Curriculares Compatibles en las Provincias y la MCBA, res. 37/94," in Ministerio de Cultura y Educación, 1996b). At the *Polimodal* level, in addition to the adaptation of provincial curriculum designs, 20% of the content should be determined by the school (Consejo Federal de Cultura y Educación, 1996).

In addition to the Common Basic Contents, in 1998, when provinces like Buenos Aires and Córdoba were already implementing the third cycle of the EGB, the Federal Council agreed to establish a common curricular structure for the EGB3 with nine "curricular spaces:" Spanish, mathematics, social sciences, natural sciences, foreign language, arts education, technology, ethics and citizenship, and physical education. A similar agreement was reached for the *Polimodal* and the technical specializations, establishing the five modalities mentioned above, and the possibility of a variety of technical-professional training courses.

3. TEACHER TRAINING

The design of new curricula implied the need for the re-training of teachers and principals. Teachers were considered to have a very low degree of both pedagogical skills and subject knowledge. The Federal Network of Teacher Training was designed to prepare teachers for the curricular changes, update their skills in subject matter, and improve their use of educational materials and computers. Specific training – which took place outside schools – was offered for teachers at the EGB3 and at the *Polimodal* cycles, while encouraging university education for teachers at the *Polimodal* cycle. An innovative aspect of the network was that principals, also, received specific training.

Both Teacher Training Institutes (either under provincial or private administration) and universities are considered to be part of the new training system, under the supervision of the provincial ministries. The curricula of Teacher Training Institutes were also redesigned with three levels of specificity:

[14] According to Braslavsky (1998), "the Common Basic Contents are guided toward training in basic and fundamental skills, introducing many procedural contents, and placing emphasis on training in conceptual thinking more than on factual contents" (p. 308). Their design was the result of a process of consultation with experts from different fields of knowledge and with provincial MOEs.

national, provincial, and institutional. The new system was supposed to train future teachers as well as retrain all of the teachers already working at schools (World Bank, 1995; Decibe, 1998).

4. EDUCATION INFORMATION AND STUDENT EVALUATION SYSTEMS

A National System of Educational Quality Assessment has been created in the last years. Since 1993, a national evaluation has been done yearly using two kinds of instruments: 1) multiple choice tests to evaluate students' performance in different disciplines, and 2) questionnaires to school administrators, teachers, and families to gather information about institutional management, classroom practices, and students' background, attitudes, and habits of study (Decibe, 1998).

Multiple-choice tests have been administered to samples of students at primary and secondary levels, and the results have been publicized. From 1997, all students finishing the secondary level are evaluated in the areas of Spanish and mathematics. The tests have shown that students are not performing well, that private schools do better than public, and that urban schools do better than rural. The results have increased awareness about the low quality of instruction at schools and provide some legitimization for the reforms.

The National Network of Educational Information has helped advancing in the development of (and coordination among) provincial units of educational information as well as in the use of information for decision-making. The first national census of teachers and educational institutions took place in 1994 (Decibe, 1998).

5. A NEW MODEL OF SCHOOL MANAGEMENT

The national government encouraged from the mid 1990s a new model of school through the *Contenidos Básicos Institucionales* (Institutional Basic Contents). The institutional contents were proposed from the national level to the provinces as guidelines for the management of all schools in the country (Ministerio de Cultura y Educación, 1996c) and were related to the objectives of consolidating the school as the basic unit of management and strengthening its autonomy (Consejo Federal de Cultura y Educación, 1994).

The main idea is that the application of new curricular guidelines requires changes in the management and organization of schools in order to be effective and to facilitate instructional innovations. Changes in the management dimension have the objectives of encouraging the participation of the school actors and facilitating the organizational changes that would result in the transformation of instructional practices. It is argued that each school should make its own decisions on the use of the time (e.g., replacing the traditional classroom hour by different units of time), the use of space (e.g., classrooms in which students are allowed to move among "corners" with different activities), and grouping practices

(e.g., more than one teacher working with students in a jointly planned activity; students of different ages grouped together for a special activity) (Ministerio de Cultura y Educación, 1996c).

The Institutional Educational Project (IEP) became the main tool for the new model of school. It is a document produced by each school elaborating and adapting the Provincial Curricular Design and deciding how to deliver the curriculum. Each school is invited to build its own organizational and management structure based on its needs, its reality, and the people who are part of the school. The IEP is the mechanism that should allow the school to mediate between the general educational guidelines (at national and provincial levels) and the local context. The official proposals stress the importance of teamwork, involving all of the school actors and the local community working on defining the mission and objectives of schools and how these are achieved both at the institutional and classroom levels. The instructional practices should be the "result of an action which is deliberately and consciously planned by the institutional [school] actors, within the frame of the national and provincial political guidelines" (Ministerio de Cultura y Educación, 1996c, p. 33). The central element of the IEP is the school curricular project in which teachers and principals are given central participation.

6. COMPENSATORY PROGRAMS

The Federal Law established a compensatory role for the national government, which translated into the Social Plan for Education (*Plan Social Educativo*), designed to provide federal funds for improving facilities, computers and textbooks directly to the poorest primary and secondary schools in the country. The Social Plan reached more than 17,000 schools and about 3.6 million students during the period between 1993 and 1998; in the Northeast region, for example, it covered nearly 87% of all schools (Morduchowicz, 1999).

The new emphasis on compensatory programs can be seen as responding to a social context of increasing fragmentation and marginalization (see Minujin and Kessler, 1995). The government recognized that social segmentation and impoverishment translate into schools with different levels of resources serving different groups of students. The aim of one of the programs, for example, is "to provide poorer children with the same (pedagogic) resources as the most privileged ones" (Ministerio de Cultura y Educación, 1997, p. 44).

The different programs of the Social Plan included the construction of new classrooms for the EGB3 cycle, the provision of scholarships for students from low-income families to help them attend the EGB3 and *Polimodal* cycles, and the *Proyecto Tercer Ciclo de la Educación General Básica Rural*, which since 1996 provided technical and financial assistance for the implementation of the EGB3 in rural schools. In 1999, this specific project covered about 24% of rural schools in the country, distributed in 21 out of 24 provinces (Gozman and Jacinto, 1999).

D. Implementation Strategies and Problems

In general, the implementation of the reform has been characterized by a new form of relationships between the national and provincial ministries of education, the support of international organizations (like the World Bank, IDB and UNESCO), and the opposition of teachers' unions.

1. THE ROLE OF INTERNATIONAL ORGANIZATIONS

During the period between 1995 and 1999, the loans from IDB and the World Bank for the financing of reforms represented 2% of global educational expenditures (at the national and provincial levels). During that period, the World Bank invested US$410 million for the Decentralization and Improvement of Secondary Education Project, while IDB provided US$600 million for the Educational Reform and Investment Program (Decibe, 1998). The World Bank project focused on the EGB3 and *Polimodal* cycles. It supported: the strengthening and modernization of administrative, evaluation and planning capacities and systems at the provincial level; curriculum development; provision of educational resources (textbooks, libraries, computer and science laboratories, etc.); school expansion and rehabilitation; and the development of school-based improvement projects (Institutional Educational Projects) (World Bank, 1995; 2000). The IDB program focused on the EGB and teacher training.

According to Tiramonti (1996, pp. 15-16), international organizations like UNESCO and the World Bank defined the general agenda of educational reform, but the Argentine government had some possibilities of negotiating how to use the loans received. Cocorda (1999), on the other hand, holds that the government tended to invest in the areas prioritized by the World Bank and IDB without its own diagnostic of the educational sector.

2. THE RELATIONSHIP BETWEEN THE CENTRAL GOVERNMENT AND THE PROVINCES

In the implementation of the Federal Law and related changes, the national government followed two strategies in the period between 1994 and 1999 (Senén González, 2000): 1) working with the provincial MOEs to build consensus and legitimacy through the Federal Council on Education; and 2) working directly with schools through specific programs. Another characteristic of the manner in which the national government guided the reform was to initiate all of its elements simultaneously, attempting to complete many of them in a relatively short time (Experton, 1999, p. 7).

As was shown in the previous section, the national government played a prominent role in designing educational policy and programs, some of which were supposed to support and coordinate provincial efforts in the main aspects of the reform. In the new scenario established by the Federal Law of

Education, the national policy and its implementation were to be discussed with the provinces at the meetings of the Federal Council on Culture and Education (*Consejo Federal de Cultura y Educación*). The Federal Council advanced in the definition of some of the main elements of the reform like the new structure of the system, the new system of educator training, the curricular reform, and the development of the evaluation system.

Apparently, the Federal Council did not have an active role in the production of proposals, but discussed the initiatives and documents produced by the National Ministry of Culture and Education. The decisions of the Federal Council are not compulsory for the provinces, but some argue that the provinces' financial dependence on the national government and lack of expert knowledge make them respect those decisions (Tiramonti, 1996).[15]

As mentioned before, an important element of the law was that it established that national and provincial governments should significantly increase the resources for the financing of education. Although the specified goal was not achieved (public educational budgets were supposed to reach 6% of the gross national product (GNP)), educational expenditures did grow in the context of a general expansion of public expenditures.[16]

The Federal Pact on Education (*Pacto Federal Educativo*) was signed in 1994 by all provincial governors and the President, and it established a commitment from the national government to invest US$3 billion during a five-year period to fund provincial needs in the areas of educational infrastructure and equipment, and teacher training. Provinces committed to implementing the Federal Law and to investing in the reforms (Consejo Federal de Cultura y Educación, 1994).

From 1995, when the Mexican financial crisis impacted Argentina, the expenditures expansion decreased (see Table 2). In the period between 1992 and 1997, the national government almost doubled its educational expenditures while provinces (including the city of Buenos Aires) increased their expenditures to about 40% (see Table 3).

The strategy for involving provinces was facilitated by the fact that the same political party (*Peronismo* or *Partido Justicialista*) administered the national and almost all provincial governments during the 1990s.

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[15] In the Argentine system, most taxes are collected by the national government, and then distributed among the national and provincial administrations. As Senén González (1997) states, this system has been a source of conflicts and negotiation between the nation and the provinces. Since its creation in 1935, various legal instruments have changed the percentages for each level of government and the kinds of taxes included (Carciofi, et al, 1996). In addition, the national government has been allowed to make special contributions to provinces facing financial problems.

[16] The national budget for education increased about30 % between 1993 and 1996 (Braslavsky, 1999). As Morduchowics (1999) shows, this growth translated in an increasing transfer of funds from the national level to provinces and schools in the areas of infrastructure, equipment, scholarships, development of school institutional projects, and teacher training.

Table 2. General educational expenditures in the period 1992-1997 (in US$ millions)

1992	US$ 7.898
1993	US$ 9.531
1994	US$10.844
1995	US$11.136
1996*	US$11.302
1997*	US$11.796

* The data for these years is provisional.

Source: D.N.P.G.S. - Secretaría de Programación Económica. Ministerio de Economía y Obras y Servicios Públicos, Argentina.

Table 3. Educational expenditures (in US$ millions) for the period 1992-1997, by level of government

Year	National	Provinces and City of Buenos Aires	Municipalities	Total
1992	1.362	6.057	159	7.578
1993	1.691	7.135	190	9.016
1994	1.985	8.066	204	10.255
1995	2.086	8.273	194	10.553
1996*	2.213	8.369	196	10.778
1997*	2.556	8.490	200	11.246

* The data for these years is provisional.

Source: D.N.P.G.S. - Secretaría de Programación Económica. Ministerio de Economía y Obras y Servicios Públicos.

The only jurisdiction that strongly resisted the national proposals was the city of Buenos Aires, which enjoys a high level of resources and where Peronism has always been a minority in electoral terms. The provinces of Buenos Aires and Córdoba, with high level of resources, also showed some independence from the national government (Senén González, 2000).

In general, provinces appeared to accept the national initiatives because of the additional funds these initiatives represented in a context of provincial fiscal crisis (Senén González, 2000). However, many provinces had an inadequate level of financial and technical resources to implement various aspects of the reform proposed at the central level (Experton, 1999; García de Fanelli, 1997). Some analysts argue that the national government between 1993 and 1999 failed to support technically the provincial

MOEs – which presented differing needs and capacities – for an effective implementation of the new policies (Senén González, 2000; Roggi, 2001).

3. IMPLEMENTATION AT THE PROVINCIAL LEVEL

Provinces adopted different responses to national policies and projects, according to their financial and technical resources as well as local politics. An example of the different provincial strategies for the implementation of educational changes was the reform of the structure of primary and secondary education. Provinces like Buenos Aires and Córdoba designed their own policies with regard to the localization and the role of the EGB3 cycle, which includes the last year of the former primary and the first two years of the former secondary cycle.[17] The province of Buenos Aires decided to implement an "institutional model" of EGB that includes the three cycles, from the 1st to the 9th year or grade.[18] By contrast, Córdoba decided that the EGB3 and the *Polimodal* should constitute two cycles of the new Middle Schools. Most provincial governments seemed to choose a mixed model, where the third cycle of the EGB is placed in new buildings or in schools offering either the other two cycles of EGB or the *Polimodal*, depending on the availability of space at the buildings, their geographical location, and in negotiation with different actors (community, supervisors, school principals, local teachers' union, parents) (Ministerio de Educación, 2000b). In the cases of the city of Buenos Aires and the province of Río Negro, the new structure has not been implemented at all (Ministerio de Educación, 2000d), while many other provinces have recently started the introduction of the new cycles, involving a limited number of schools (Aguerrondo et al., 2000).[19]

Provinces have also showed significant variations with regard to curricular aspects. In terms of the number of subjects, for example, 13 subjects are offered in the EGB3 cycle in Cordoba, while in the province of Buenos Aires there are just seven "curricular spaces." At the same time, most provinces seem to be increasing the number of hours at least for the academic or traditional curricular areas (language, math, social sciences and natural sciences), but in some cases, like in the province of Salta, they do not respect the minimum established (Ministerio de Educación, 2000c, p. 7).

For the EGB3 cycle, which implies the extension of compulsory education to the 8th and 9th years, provinces have faced financial problems as well as challenges in the availability and relocation of

[17] The province of Buenos Aires has gone further than any other in the implementation of the new structure by making compulsory the attendance of the *Polimodal* and offering scholarships for this cycle to low-income students.

[18] However, in some cases, the 8th and 9th years have remained located in the secondary school buildings but under the direction of the EGB principal, which has resulted in problems of communication and coordination, and in teaching styles at those years that resemble more to those of the old secondary (Krichesky and Cappellari, 1999; Ministerio de Cultura y Educación, 2000b).

[19] Even in the case of the province of Córdoba it can be questioned whether the change of structure represents the implementation of the EGB and the *Polimodal* or of a different model.

teachers. In some provinces, decisions about who should teach at this level (primary *maestros* vs. secondary *profesores*) and with what kind of retraining were not carefully planned. Many appointed teachers did not have the necessary training, and many posts were not covered at all (Ministerio de Educación, 2000b). In most cases, both primary and secondary teachers have been included in the EGB3 cycle, but this has resulted in tensions between the two groups and the particular ways in which they conceive the teaching and learning processes (Ministerio de Educación, 2000e, p. 18). Another problem has been the lack of training for teachers who would hold new positions as "coordinator" of the cycle or "tutors" (new positions created with the EGB3) (ibid, p. 12). There are also questions about the capacities of principals to deal with the new structure of basic education (Krichesky and Capellacci, 1999).

The national initiative for the retraining of teachers appeared as one of the most difficult reform elements to implement. According to the National Confederation of Teachers' Unions and based on a survey of teachers' opinions, teachers have found difficulties attending training courses, mainly because of financial and time limitations (CTERA, 2001). In some cases, the content and quality of teacher training courses have not satisfied teachers (Casassus, et al., 1998).

4. THE RELATIONSHIP BETWEEN CENTRAL GOVERNMENT AND THE SCHOOLS AND THE MOVEMENT TOWARD SCHOOL AUTONOMY

The Social Plan for Education (*Plan Social Educativo*), previously described, can be considered as an example of the direct relationship that the national government established with some schools. Another example is New School (*Nueva Escuela)*, a program implemented from 1994 (reaching 1100 schools in 1995, though most of them in an indirect way) (Tiramonti, 1996). The New School program attempted to facilitate the development of the new and more autonomous model of school management. Similar to the mechanism employed in the Social Plan, each province selected a coordinator and a group of schools to participate in the program; the national government provided funds and technical assistance for carrying out the school projects.[20]

With regard to the implementation of the new model of school management, it has been evaluated that decentralization at the school level was more rhetorical than real (Experton, 1999, p. 59), while the design of the IEPs at schools was done with limited participation of teachers and local communities and with a lack of measurable and clear objectives (Experton, 1999, p. 28).

The differences among schools in terms of cultural and material resources are a big challenge for moving toward more autonomous forms of organization and management if autonomy is expected to improve the quality of education for all. In the words of somebody who was actively involved in the

[20] For the case of the Social Plan, Puiggrós (2000) states that there have been clientelistic practices in the way provinces and schools are selected.

analysis and planning of educational reform during the 1990s, "The main risk in the current reconversion of the educational system is that only private schools attended by the higher-income population, and public schools that participate in plans and projects for offering targeted assistance, will be able to gain the kind of autonomy needed to adopt their own proposals for restructuring the system" (Braslavsky, 1998).

5. TEACHERS' SALARIES AND POLITICAL RESISTANCE

In addition to the limited capacities of provinces, low teachers' salaries and the unions' opposition to reforms have been considered strong barriers for the implementation of the new policies.[21] Teachers' unions seemed to see the reforms implemented during the Menem administrations (1989-1999) as part of a neoliberal policy that attacked public schools and tried to weaken unions' power (CTERA, 1997). In the province of Buenos Aires, for example, the implementation of the new structure has been sometimes perceived by teachers as a threat to their working conditions and their identity (Krichesky and Capellacci, 1999), and they have had very limited possibilities of influencing the process of educational reform (Casassus et al., 1998). According to the cited survey produced by CTERA, 69% of teachers report that they did not participate in the elaboration of the new curriculum, and 65% think that it hasn't had a positive effect on teaching (CTERA, 2001).

With regard to salaries, in 1996, teachers at the secondary level earned 60% less than in 1980 (Carnoy and Castro, 1996). Llach, et al (1999), show that teachers' average initial salary is less than 40% of the average salary in the formal economy. The national government started to explicitly recognize the problem of salaries in 1998, after a year of teachers' manifestations, with a law that provided a small increase for all teachers in the system (La Nación, 7/9/99).

The resistance of teachers' unions and of important sectors of the main opposite political parties to significant aspects of the reform put into question the continuity of the Federal Law when, by the end of the 1990s, a party change in the national administration was imminent. Representatives of the political opposition pointed out that the national government had not attempted to achieve a broad agreement about the direction of the reforms, had not provided the necessary funds for carrying out the reform, and had concentrated resources centrally while leaving provinces with the responsibility of implementation (Delich, 1999; Puiggrós, 2000; Stubrin, 1999).[22]

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[21] For the province of Buenos Aires, for example, a World Bank document states that "progress in educational reform has been slower than hoped, due to Teacher and Staff Unions' resistance to change, long standing complaints over teacher salaries, and generally poor institutional capacities" (World Bank, 2000, p. 7).

[22] According to Puiggrós (1999), the new national administration that took office in December 1999 had to accept the continuity of the Federal Law because many provincial governments (still in the hands of the Peronist party) were in favour of advancing in its implementation.

Overall, the reform advanced in aspects like curriculum and student evaluation,[23] and was accompanied by a major effort in upgrading facilities and providing resources for some of the schools in the poorest areas of the country. On the other hand, it faced many problems in the area of teacher training, made little progress in developing a new model of a more autonomous school with participation of teachers and local community, and resulted in an uneven implementation of the new structure.

E. The Effects of the Reforms: Quantitative Expansion and Quality Improvement?

It is difficult to evaluate the effects of secondary education reform since its implementation is a very recent process. Some authors hold that the "primarization" of the old 1st and 2nd years of secondary education (now the 8th and 9th years of the EGB) has negative pedagogic effects since it involves a uniform approach that does not respond to the specific needs and problems of teenagers (see Puiggrós, 1997). In addition, it is argued that the different structures of secondary education within and among provinces result in a fragmented system (FIEL, 2000; Puiggrós, 2000).

A document produced by FIEL (Fundación de Investigaciones Económicas Latinoamericanas), a research institution linked to business groups, regrets the neglect of technical education, states that "the extension of a generalist academic education [through the EGB] does not appear as the best strategy for student retention" (p. 105), and concludes that the reform of the educational structure has been "costly, harmful in some aspects, and not necessary in other aspects" (FIEL, 2000, p. 110, author's translation). According to this document, compulsory education could have been extended without changing the structure, while technical education should be offered at the EGB3 cycle, which would make schooling more attractive and useful for students from low economic status.

Teachers' unions also tend to criticize the change of structure and its pedagogic effects. Some of the critiques saying that at least an important part of the teachers' unions make changes affecting secondary education are reflected in the following quotes from a document produced by the most representative group of the province of Buenos Aires:

> [The EGB] deepened the fragmentation of the educational system and caused fractures in the school organization… This discourse [of the reform] translated into lack of consideration of the characteristics of teenagers, of institutional cultures, of work conditions, and of teacher training… One of the most harmful effects of the reform is the disarticulation and disappearance of middle, technical and agrarian schools (SUTEBA, 1999, pp. 4 and 6, author's translation).

[23] There have been questions about the quality and efficiency of the evaluation system (see *La Nación*, 11/23/98), and about its impact on schools and classrooms (Experton, 1999).

By contrast, other analyses argue that learning conditions have improved through the updating of curriculum content and teaching methods, as well as through the upgrading of buildings and equipment (Braslavsky, 1999). National and provincial governments that implemented the reform during the 1990s and the international organizations that supported it tend to point to increases in enrollment and retention rates as one of the main benefits of the changes introduced (see, for example, Decibe, 1998).[24] The national government also claims that the evaluations of students' learning show improvements in the performance of students, particularly in the poorest regions of the country, and that such improvements can be related to the educational compensatory actions of the federal government (Decibe, 1998, p. 24).

In relation to the effects of the reform on enrollments, some studies have been produced for the province of Buenos Aires, one of the most advanced in implementing the reform, and the most important in terms of the number of students, teachers and buildings. Most studies argue that the reform has been effective in increasing enrollment at the secondary level, but they point to the enduring problems of repetition and ineffective retention. Morduchowicz (1999) reports that in 1997, the number of students attending 8th year (previously the 1st year of secondary) increased 14%, while Casassus, et al, (1998) show that the retention rate for the same grade and year increased about 17%. Suárez and Balduzzi (1998), on the other hand, point to the relative value of enrollment increases. They argue that the incorporation of many students was formal rather than real because of the lack of conditions for student learning and for assuring their permanence in the system. They show that only 27% of the students enrolled in 8th year during 1997 achieved the minimum learning requirements, while around 11% of the students dropped out. At the same time, according to their data, only 16% of students were absent from class less than three days per month on average. Krichesky and Capellacci (1999) also show some increases in the number of students attending the 8th and 9th years, while suggesting that schools do not employ effective strategies for the retention of students, particularly those of low SES.

Other studies about the implementation of the EGB3 in different contexts also point to improvement in enrollment rates. In the case of the province of La Pampa, the trends toward increasing enrollment and decreasing dropout rates were accelerated by the implementation of the EGB3 (Duschatzky, et al, 1999). Increases in enrollment and retention rates were also found for the rural schools included in the special project of the Social Plan for the implementation of the EGB3 (Gozman and Jacinto, 1999).

On the other hand, a document of the National MOE (Ministerio de Educación, 2000b) suggests that in the case of the province of Córdoba, the emphasis on improving quality that has been the rationale for the creation of the new Middle Schools comprising the EGB3 and *Polimodal* cycles, might

[24] A World Bank (2000, p. 5) document, for example, states, "The ongoing reform of secondary education (in the province of Buenos Aires) has boosted the retention rates in the EGB3 cycle and is already showing a significant increase in enrollment for the Polimodal cycle."

contribute to an earlier exclusion of some students from the educational system; disadvantaged students seem to be dropping out after the 6th grade (when they complete the second cycle of the EGB), instead of 7th grade as was the case with the former primary.

With regard to the improvement of the quality of education, the lack of training of teachers and principals to deal with new responsibilities (particularly the management of the nine-year basic education structure and its three cycles) and curricular changes at the EGB3 cycle seems to imply a major barrier. Krichesky and Cappellacci (1999) suggest that in schools serving students of low SES, teachers and principals see the focus of the EGB3 on providing social and psychological support to students rather than on facilitating learning. Similar constraints seem to affect the *Polimodal* cycle. For the province of Buenos Aires, it is stated that "At the Polimodal level the urgency of improving teacher training and support services is even greater (than at the EGB), since the new streams ("modalidades") require different teaching methodologies and academic skills. The poorest schools encounter most of the problems to implement the new regime, and are most urgently in need of assistance" (World Bank, 2000, p. 6).

The implementation of the EGB3 (from 7th to 9th grade) seems to involve a trade-off between coverage and quality. The linking of this cycle with the previous cycles of general basic education (not only in terms of physical space but also of pedagogic practices) appears to provide more effective integration of students from low-income groups who tend to dropout of school after completion of the former primary level. On the other hand, when the EGB3 is integrated into the *Polimodal*, it appears as offering a higher quality education but with less possibilities of retaining "at-risk" students (Ministerio de Educación, 2000a).

F. Conclusion

During the 1990s, Argentina embarked in an ambitious reform of secondary schools and of the general educational system. While changes have affected almost all aspects of education, there are two elements of the reform that have set the framework for the implementation of other policies. The first one is the decentralization of national secondary schools to provinces and the new division of responsibilities between national and provincial governments. The second element is the new structure of education, which has implied a redefinition of the functions and the content of secondary education.

The reform advanced in defining a new and more coherent system, including the development of evaluation and information systems, and of national curricular guidelines, along with significant investments in infrastructure. Secondary education was restructured, now comprising the third cycle of the compulsory general basic education (EGB3) followed by the *Polimodal* and the technical specializations.

The implementation of the EGB3 has resulted in an increase in enrollment rates by extending the number of years that students from low-income groups stay in the system, but there are questions about the quality of the education offered at this cycle. In addition, the identity of the EGB3 is not clear: continuation of basic education, introduction to upper secondary, or a level that addresses the specific needs and characteristics of young teenagers.

On the other hand, as Castro, et al (2000), suggests, the creation of the *Polimodal* – offering different orientations within a general academic education – may be a legitimate way of addressing "the increasingly flexible labor markets of the new global economy" (p. 14).[25] The combination of the *Polimodal* and the technical specializations appears as a possible way of balancing general academic and more flexible skills formation for technical orientation. There are, however, actors (teachers' unions and business groups) that consider that technical education is being neglected with the possible effect of making secondary education less attractive to students from low- or middle-income groups.

The centralized design of the new policies by a national ministry, which devolved the administration and management functions to provinces in order to focus on the planning and evaluation of the system, has faced problems of implementation derived from the limitation of financial and technical resources at the provincial level. In general, provinces accepted the proposals from the national level, but in many cases were not able (or willing) to provide the necessary funding to carry them out, which resulted in partial implementation, particularly visible in the aspect of the new structure of the educational system. This seems to indicate the need for a more careful design of policies and their implementation, taking into account the particular capacities of different provinces, and for more emphasis on the support to provincial ministries. The financial difficulties for carrying out the various aspects of the reform may be indicative that a more gradual or focused strategy would have been more appropriate.

The analysis suggests that there is also a need for a more careful design of training policies and programs. It might make more sense to organize training of teachers and principals at the schools where they work, articulating such training with the design of school institutional projects (particularly the design of the school curricular project and, at the *Polimodal* level, the definition of the 20% of instructional content that is left to the school). There is also a need for specific training to educate students from economically disadvantaged families and developing strategies for their retention at the EGB3 and *Polimodal* levels.

[25] Castro, et al, hold that "In general, broad-based knowledge geared toward problem solving seems to be more valuable to graduates over their work lives than specific vocational skills" (p. 14). In their view, that is the approach employed in the *polimodales* of Argentina and Mexico.

At the same time, the Argentine case appears to illustrate the need for involving teachers and their unions in a more active way, and for improving their working conditions, including salaries.[26] It has been recognized that national authorities failed to include non-governmental organizations like teachers' unions in the discussion and negotiation of educational policies, and were not able to create a broad public support for the proposed changes (Braslavsky, 1999).

Although the reform has addressed significant issues related to access, quality and equity, it is not clear at this point in time what elements of the reforms are going to be continued, modified or strengthened in the long term. Even some of the most critical voices (e.g., FIEL, 2000; Puiggrós, 2000) consider that it would not be wise to revert the reforms given that some provinces have considerably advanced in their implementation. With a new national administration, which took office at the end of 1999, the Federal Council of Education has decided to give more flexibility to provinces in the implementation of the new structure, while the National MOE has began to reformulate aspects like teacher training, compensatory programs, and the evaluation and information systems, giving high priority to the improvement of secondary education.[27]

[26] Tedesco (1998) notes that the neglecting of teachers as active participants, a characteristic of many reforms in Latin America during the 1990s, needs to be reversed in order to improve the effectiveness of educational policies.

[27] The new administration decided to continue some of the programs initiated during the 1990s that aimed at facilitating changes at the secondary level, like the program that supports the implementation of EGB3 in rural schools and the program that provides scholarships for students from low-income families.

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III. Secondary Education Reforms in Egypt: Rectifying Inequality of Educational and Employment Opportunities

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Abstract

Examining secondary education reforms in Egypt helps to clarify the interaction between education, the country's socioeconomic circumstances and the government employment strategies. Secondary education policies could either promote unequal access to post-secondary education and therefore to employment opportunities or could improve the quality and equity of secondary education opportunities and help decrease unemployment. This study addresses the following issues: a) how students graduating from different secondary education programs promoted by the government educational policy, economic crisis, and employment strategy of the 1980s had unequal post-secondary education and employment opportunities; b) why three secondary education reforms were undertaken during the 1990s; c) how these three reforms were planned and implemented; and d) the extent to which the reforms may improve educational quality and opportunities and decrease the high rate of unemployment among graduates of secondary education.

A. Introduction

Secondary education reform in Egypt in the 1990s is coherent with the country's historical background in both its economic and social dimensions. Since the 1952 revolution, Egypt pursued economic policies based on state intervention, centralized decision-making, public sector dominance of industrial production, import substitution and a highly regulated system of controls on private economic activity. The education system as a whole expanded rapidly, especially in the secondary and university sub-sectors. All levels of education (primary, preparatory, secondary, and higher education) were offered free of charge. Moreover, in 1964, the government guaranteed a government job to any university graduate (USAID/EGYPT, 2000; Richards, 1992, p. ii).

[28] The development of this work witnessed valuable academic assistance and cooperation from professors and educational specialists whose efforts I really appreciate. I would like to thank the Egyptian consultants: Nadia Yossef Kamal (Professor of Foundations of Education, Ain Shams University) for her efforts and feedback, which promoted the scientific accuracy of this work, and Awad Tawfiq (Educational Specialist and Researcher, National Center for Educational Researchers and Development) for his cooperation. Many thanks are due to Clementina Acedo (Project Director, University of Pittsburgh) for her inestimable assistance and efforts in this work since its first draft. Many thanks are also due to Mark Ginsburg (IISE Director, University of Pittsburgh) for his valuable questions, and suggestions that helped develop the socioeconomic dimension of the study. I would also like to thank William Darnell (Senior Technical Advisor, Academy for Educational Development) for his great cooperation and help. A flashback to the development of this work recalls a friendly and cooperative atmosphere, thanks to my colleagues: Jorge Gorostiaga, Leonora Kivuva, MinHo Yeom, and Simona Popa (Project Teamwork, IISE, University of Pittsburgh).

The World Bank (1991) reports the cumulative effect of those policies, in the context of rapid population growth, to include a high economic cost in terms of expansionary budget and increased market distortions. Furthermore, the government failed in its attempt to eliminate poverty; absolute poverty remained at a high level although a social mobility survey conducted in 1979 indicated that education was a strong factor in promoting upward social mobility during the Nasser era (World Bank, 1991, pp. xvi and 76).[29]

The Government of Egypt (GOE) announced an "Open Door Policy" in 1974 to attract foreign investment. Since the mid-1970s to mid-1980s, Egypt had been undergoing swift economic growth stimulated by high oil prices, increased worker remittances, tourism revenues and substantial foreign borrowing. During this period, revenues were directed towards increased public expenditures in infrastructure and import substitution industries (Al-Mashat and Grigorian, 1998).

After a decade of rapid economic growth following the start of the open door policy, Egypt experienced a sharp economic crisis because of the oil boom of the 1980s.[30] The growth of the late 1970s, under the thrust of rising oil production and prices, increased remittances while the expenditure of foreign aid, obscured distortions in the economy, weaknesses in the balance of payments, and "macroeconomic disequilibria" emerged. The inflation rates rose significantly from 8% in 1983 to 16% in 1985 and 22% in 1991 (World Bank, 1991, p. 1; Al-Mashat and Grigorian, 1998). The economic situation (with a government employment guarantee for graduates) meant that full employment was achieved by the over-staffing of government and public enterprises that educational policy was directed to restrict the university enrollment, and that unemployment began to rise particularly among secondary education graduates. "In 1986, secondary and post-secondary graduates represented 84% of open unemployment, roughly 1 million out of 1.2 million unemployed" (World Bank, 1991, pp. 52-53).[31]

Such socioeconomic circumstances left policy makers with only one option: economic reform. In 1991, the GOE embarked on a comprehensive Economic Reform and Structural Adjustment Program

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[29] The lack of access to productive assets, notably land in rural areas, and the unavailability of alternative sources of steady income through regular wage employment explain the persistence of chronic poverty among potentially productive groups. By 1974-75, the proportion of poor households was 44% and 36% for rural and urban areas, respectively (World Bank, 1991, pp. xvi and 6). Gamal Abd-El-Nasser was the president of Egypt from 1952 to 1970.

[30] The value of petroleum sales fell from $2.9 billion in 1983 to $1.36 billion in 1987. The share of oil in total exports in Egypt fell from 70% in 1983 to just less than 50% in 1987. Other traded goods failed to take up the slack created by the decline of oil (Richards, 1992, p.2).

[31] Since 1985, the labor force has grown faster than the population. Its growth at an average rate 5% per annum reflects the rising number of youths and women entering the labor force, resulting mostly from the "baby boom" after the October War of 1973 (World Bank, 1991; Richards, 1992, p.4).

(ERSAP) supported by donors.[32] The major objective of this reform was to allow the private sector to achieve rapid, efficient, and sustainable growth. ERSAP advocated a shift from a centrally planned economy with a dominant public sector to a market-based and export-oriented economy in which the private sector plays a leading role (Al-Mashat and Grigorian, 1998; USAID/Egypt, 2000).

Promoting private sector growth remains a priority for job creation.[33] Egypt's labor force is growing at a rate of 500,000 new entrants per year, but one of the challenges faced by privatization was the quality of education, viewed by the World Bank specialists as inadequate: "in spite of high enrollment rates, literacy remains low, more than half of the officially unemployed hold an intermediate degree or higher, and yet there is a shortage of skilled workers. This suggests large inefficiencies and a serious market mismatch with the educational system" (World Bank, 2000, p. 4).

The situation in secondary and post-secondary education described above is a result of the government's educational policy during the economic crisis of the 1980s. Since 1990, secondary education reform has been directed to face serious problems caused by such policy. Furthermore, in 1996, the World Bank began working with the GOE on a framework for secondary education reform. As a result, a long-term, 20-year strategy for the secondary education sector was developed in 1999. The strategy is known as the Secondary Education Reform Program (SERP).

The examination of secondary education reform initiatives during the 1990s requires taking into consideration the educational policy developed in the context of the economic crisis of the 1980s. This helps to clarify: a) how students graduating from different secondary education programs promoted by the policy had unequal post-secondary and employment opportunities; b) why three secondary education reforms were undertaken during the 1990s; c) how these three educational reforms were planned and implemented; and d) the extent to which the reforms may improve educational quality and opportunity and decrease the high rate of unemployment among graduates of secondary education.

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[32] The World Bank approved a Structural Adjustment Loan to Egypt in the 1991. It was the first policy-based Bank loan to Egypt and was part of a larger donor package of assistance, which included a Stand-By Arrangement from the IMF and a Paris Club debt reduction (World Bank, 2000, p. 6).

[33] In reaction to global pressures, internal policies in Egypt had to shift. Private enterprise was increasingly accepted as a requirement for growth, along with an economy open to free trade. It was also accepted that a healthy economy would require a significant increase in productivity, the attraction of private capital, and the ability to compete successfully with alternative trading partners in the EU (Gill and Heyneman, 2000, pp. 401- 402).

B. Secondary Education Reform, Government Policy, and Economic Crisis in the 1980s

Secondary education has crucial importance in the Egyptian education structure because its graduates compete for university admission or for work. During the 1980s secondary education was structured in three broad types: 1) a three-year general or academic program; 2) three or five-year vocational and technical programs; and 3) a five-year primary teacher training program.[34]

According to the structure of the education system in Egypt, graduates of general secondary schools may go to the university, while graduates of technical secondary schools may only go to non-university higher and middle institutes or to the job market (in many cases remaining unemployed) (see Table 4). This means that access to the university depends on enrollment in the general secondary schools with one exception: students graduating from three or five-year technical secondary school may apply to the university faculty appropriate to their curriculum.[35] Technical secondary graduates must have obtained a high grade on their final examination and a supplementary examination may be required for admission into some faculties.[36] Generally, less than 5% of the technical school graduates are admitted to the universities (Wilcox, 1988, p. 31; World Bank, 1999b); while, more than 80% of the general secondary school graduates enter the universities (*El Ahram Daily Newspaper*, July 24, 1999).

The structure and admission policy of secondary and post-secondary education in Egypt constitutes a culture of great prestige in general school and university education as opposed to vocational school and technical education. It also reflects the unequal access to the university level.

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[34] In 1984, attendance at preparatory (junior secondary) schools was made compulsory. As a result, increasing the number of teachers for basic education became a necessity. In 1988, the Primary Teacher Training Schools were transferred to the Basic Education Teacher Program in the education colleges at the university level. This upgrading of a primary teacher training school from a secondary level to a program at the university level attempted to improve the quality and performance of primary schools teachers and encourage the enrollment growth of such program.

[35] Graduates of five-year technical schools if admitted to the university, are placed in the second year of the university program. Based on the five-year technical school curriculum, the first year includes theoretical and preparatory subjects that are similar to the subjects in the first year of the university level. For example, commercial graduates apply to certain faculties of commerce and industrial graduates apply to certain faculties of engineering.

[36] The score of the final examination that would be accepted to enter the universities is determined annually. Each university proposes the number of new students (general and technical secondary school graduates) to be enrolled in each faculty according to its faculty and physical resources. The Supreme Council of Universities makes the final determination.

Table 4. Structure of the educational system in Egypt

Age	Grade	Level		
22	17	Universities	Non-Universities Higher and Middle Institutes	
21	16			
20	15			
19	14			Technical Secondary School (5 Year)
18	13			
17	12	General Secondary School	Technical Secondary School (3 Year)	
16	11			
15	10			
14	9	(Basic) Preparatory		
13	8			
12	7			
11	6	(Basic) Primary		
10	5			
9	4			
8	3			
7	2			
6	1			
3, 4, 5		Pre-Primary		

Note: From 1989 to 1999 the primary level was consisted of 5 year. Recently the primary level duration is 6 year.

Admission to all forms of secondary education requires the Basic Education Certificate (preparatory level final examination):

> Since the number of students seeking admission to general secondary schools exceeds the places available, admission to general secondary schools is competitive and is based solely on the results of the Basic Education Certificate Examination… Typically, students admitted to vocational and technical secondary schools are those whose score in the Basic Education Certificate Examination do not qualify them for admission to general secondary schools (Wilcox, 1988, pp. 13 and 19).

The MOE controls the allocation of students to these categories of secondary education. In the two five-year plans of the GOE, 1981-82 through 1986-87 and 1987-88 through 1991-92, the educational reform policy had been to restrict enrollment growth in the general secondary schools and encourage growth in the technical secondary schools. From the school year 1981-82 to the school year 1991-92, the goal was to have 70% of secondary students in technical schools, 25% in general schools, and 5% in primary teacher training schools. The rationale was not to meet the economy's demand for technical and vocational skills, but to ease the burden on admission to universities through restricting the enrollment rate in the major channel for entering the university (Ministry of Planning, 1981; Ministry of Planning and International Cooperation 1987; Gill and Heyneman, 2000, pp. 403 - 404; Wilcox, p. 15).

Two political and economic facts of the 1980s further explain the purpose of this educational policy. On the one hand, the expansion of the university was greatly stimulated by the abolition of fees; when combined with an "employment guarantee," a very strong demand for higher education was thus created. University enrollments exploded during the period between 1977 and 1984, with enrollments expanding at about 5.4% per year; the number of students was five times larger than the designed capacity of the universities' facilities (Richards, 1992, pp. 8 and 11). On the other hand, the decline of oil revenues in the 1980s and the leveling off of foreign exchange, which led to increased borrowing and external debt, made it difficult for the government to sustain a full employment policy (World Bank, 1991, p. 48).

The interaction of the 1980s educational reform with the government economic/employment policy and economic debt caused the following: a) in the school year 1981-82, enrollment rates were 37% in general secondary school, 60% in technical secondary school, and 3% in teacher school, and by the 1991-92 school year, enrollment decreased to 31% in general school and increased to 69% technical school (MOE, 1993);[37] b) consequently, university enrollments have fallen in every year since 1984, at a compound rate of about 3% per year, and by the year 1989, the total number of university students had been reduced by nearly 100,000, a decline of some 14% (Richards, 1992, p. 11); and c) open unemployment climbed to 9% in 1986, an increase from 7% in 1976.[38]

In addition to the role of educational policy, other factors influencing the high rate of unemployment were seen to include high population and low economic growth rates, the inability of industry to absorb a larger number of workers, and a decline in agriculture's employment share from 48% in 1976 to 38% in 1986 (Federal Research Division, 1990; World Bank, 1991, p. 44).

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[37] Note that these percentages reflect the fact that the primary teacher training programs were shifted from the secondary level to the university level.

[38] Three-quarters of the 1.2 million labor-force participants looking for work in 1986 were 16 to 25 years of age and slightly over 84% were graduates of secondary and post-secondary schools. The secondary education graduates alone represented 52% of the total unemployed (World Bank, 1991, pp. 52 and 94).

A combination of factors underpinned the decline in agriculture's employment share. The expansion of employment in construction opened new opportunities to farm laborers, which produced a shift of employment from rural to urban areas. In addition, there was a growth of employment opportunities in the oil countries (Arab Gulf States) that attracted farm laborers (World Bank, 1991, p. 44).[39] An increase of nonagricultural employment, particularly social services and manufacturing, were the largest sector of employment outside agriculture. Both were dominated by the public sector, which caused an over-staffing problem that added to unemployment (World Bank, 1991, p. 44).

The beginning of the 1990s witnessed serious problems that were promoted by secondary education reform's interaction with concrete socioeconomic circumstances of the 1980s. The need of economic and educational reform had grown urgent.

C. Comprehensive Economic Reform, Secondary Education Reforms, and Labor Force in the 1990s

As maintained earlier, in 1990, Egypt experienced macroeconomic imbalance, heavy external debt, distortion in the allocation of labor, and over-staffing of government and public enterprises. The deterioration of the economy in the 1980s made it difficult to sustain a full employment policy or equal educational opportunities. The failure of the economy to stimulate private investment and employment outside the informal sector compounded the problem. Events in the Persian Gulf also weakened the safety valve of external migration.[40] Thus, as the 1980s progressed, labor force growth out-paced the creation of employment opportunities and open unemployment rose (World Bank, 2000, p. 1; 1991, p. 94).

The formal education system in Egypt, as in most other countries, is the largest supplier of workers with pre-employment skills. More than 400,000 individuals who have attended technical secondary and post-secondary institutes or a university entered the labor force in 1989 and 1990 (see Table 5). From 1990 to 1995, with an enrollment of more than 12.4 million in primary and secondary schools and roughly 750,000 in post-secondary institutes and universities, providing jobs for the new labor

[39] Agricultural secondary schools became unfavorable options for students who enrolled in technical secondary schools. In the 1985-86 school year, the enrollment in technical secondary schools was distributed as follows: 22% in industrial schools, 31% in commercial schools, and 8% in agricultural schools (National Center for Educational Researches, 1986, p. 112).

[40] In the early 1980s, migration to the Gulf provided a safety valve for Egypt's labor economy. Opportunities for external migration declined as oil incomes in the Gulf States fell in the mid-1980s and war disrupted Iraq's economy. These events did not immediately lead to large numbers of return migrants, but they moved the safety valve of expanding external migration just as Egypt's economy slowed (World Bank, 1991, p. 98). "In 1990, the GOE estimated that some 400,000 Egyptian had returned from Kuwait and Iraq in the wake of the Gulf Crisis. Such returnees increased the already considerable burden of job creation and, of course, could no longer contribute their remittance to domestic saving" (Richards, 1992, p. 2).

force required the creation of an additional 4.5 million jobs during the 1990s (Gill and Heyneman, 2000, pp. 403 and 406; Richards, 1992, p. 4).

Table 5. Labor force entrants, by gender and level of education[41]: 1989-90

Education Level	Males	Females	Total	Education Level % of Total
University	67,000	36,000	103,000	25
Technical institutes	23,000	13,000	46,000	11
Commercial Secondary	42,000	70,000	112,000	27
Industrial Secondary	94,000	14,000	108,000	26
Agricultural Secondary	24,000	5,000	29,000	7
Training College	8,000	12,000	20,000	4
Total, excluding general secondary graduates	258,000	150,000	408,000	100
Dropouts reaching labor force age	--	--	162,000	

Source: Gill, I. And Heyneman, S. (2000). *Arab Republic of Egypt*. In Gill. Indermit et al. (Eds). *Matching skills to markets and budgets* (pp. 401 – 429). New York: Oxford University Press. p. 406 (the percentage was added).

A comprehensive economic reform allowing the private sector to achieve rapid growth was viewed to be essential for both economic development and job creation. Accordingly, reform of the educational system was required and should have paralleled the economic reform in order to provide a labor force with skills that matched the new labor market requirements.

The following analysis of three secondary education reforms in the 1990s examines the relationship between economic transformation, educational reform, and the new demands of the labor market.

D. Secondary Education Reforms during the Economic Transition

Egypt's socioeconomic reality in the beginning of the 1990s directed attention of secondary education reforms toward technical education, specifically the agricultural and industrial programs. Along with

[41] Number of graduates adjusted by labor force participation rates.

economic reform, employment is shifting from public to private sectors, which means there is pressure for workers to move from service to productive work.[42]

In discussions with the World Bank in 1989, the GOE agreed in principle to broaden and accelerate comprehensive economic reform to include increased autonomy for public enterprises with the closing of some that were unprofitable and the privatizing of others with reforming financial markets to improve access to capital. Resource and product prices had to be adjusted at world price levels. Prices for agriculture export corps would increased and delivery quotas eliminated. Economic reform encouraging, once more, the production of commodities for export would hopefully reverse employment trends in agriculture making it a source of employment creation (World Bank, 1991, pp. 91 and 100). It was recognized that the agricultural sector would have relatively little impact on the demand for labor and that the complete picture for employment included a strategy of labor-intensive, manufactured exports, with a greater role for the private sector; that would create many jobs. In the spring of 1990, the GOE began implementing ERSAP (World Bank, 1991, p. 100; Richards, 1992, p. 4; Al-Mashat and Grigorian, 1998).[43]

Three secondary education reform projects supported the economic and employment strategies: 1) the Industrial and Agricultural Vocational Secondary Experimental School, established in 1990; 2) the Mubarak–Kohl Project for Promoting the Technical Education and Vocational Training, established in 1995; and 3) the Secondary Education Reform Program (SERP), established in 1999. A brief discussion of the first reform will be presented, followed by an analysis of the second and third reforms. The second and third reforms are important in portraying the future plans of technical and general secondary schools.

1. INDUSTRIAL AND AGRICULTURAL VOCATIONAL SECONDARY EXPERIMENTAL SCHOOLS

The Industrial and Agricultural Vocational Secondary Experimental Schools were set up by Ministerial Decree 205 of 24 June 1990. The experimental schools offer a three-year program and accept holders of the Basic Education Certificate. The objective is to prepare students in diverse industrial and agricultural areas to participate in the various aspects of work and production (National Center For Educational Research and Development, 1992).

[42] Service work refers to real estate, social and personal services, public utilities, social insurance, and government services. Productive work refers to agriculture, industry and mining, petroleum, electronic, construction, transportation, trade, and tourism sectors (Ministry of Information State Information Service, 1997).

[43] Continuing mechanization of harvest and control-intensive operations would further reduce the demand for labor in agricultural sector.

The purpose of this project is relevant to the government's policy of increasing the agriculture's employment share through encouraging students' enrollment in the agriculture program in secondary schools.[44] There are two major differences between the vocational experimental and traditional schools. First, the experimental schools do not have the commercial program as an option in order to encourage and increase student enrollment in both agricultural and industrial programs. This parallels the government's approach to swift employment from service to productive work along with the transition from the public to private sector.[45] The second difference is based on an attempt to change the status of work of agricultural school graduates from the less prestigious manual jobs to more prestigious positions as laboratory assistants for schools, faculties and research centers.

In spite of the establishment of the experimental schools in order to increase the enrollment rate in the agricultural and industrial schools (as opposed to commercial schools) and based on students' choice of their program, in the 1999-2000 school year the commercial schools alone represented 45% of the total enrollment in technical secondary schools, whereas agricultural and industrial schools together represent 55%, including 10% only for the agricultural schools (see Table 6). During the same period agriculture's employment share decreased from 38% in 1986 to 30% in 1996-97 (see Table 7).

Table 6. Technical secondary school enrollment, by program

Tech. Sec. Program	1991-92		1995-96		1999-00	
	Enrollment	%	Enrollment	%	Enrollment	%
Agricultural	48,364	12.2	56,832	10.2	65,768	10.0
Industrial	177,932	45.1	251,111	45.2	293,187	44.7
Commercial	168,421	42.7	248,071	44.6	297,212	45.3
Total	394,717	100.0	556,014	100.0	656 167	100.0

Source: MOE. (1993). Statistics of education 1991-93. Cairo, Egypt; MOE. (1996). Statistics of pre-university education 1995-96. Cairo, Egypt; MOE. (2000). Statistics of pre-university education 1999-00. Cairo, Egypt.

[44] In 1989, the GOE distributed more than 150,000 feddans of reclaimed land in the West Nubariyya area (West of Delta) to some 167,000 graduates, of whom roughly 70% have earned their degrees in nonagricultural disciplines (Richards, 1992, p. 16).

[45] Government employment in social service swelled from 1.8 million in 1976 to 2.6 million in 1986, an average increase of 4.4% per annum (World Bank, 1991, p. 44). This increase in social service employment may be the reason not to include commercial programs in the experimental vocational schools.

Table 7. Employment share (in thousands), by sector in 1996-97, in comparison to estimated employment share (in thousands), by sector in 2001-02

Sector	1996-97		2001-02		Expected rise
	Employees	% of total	Employees	% of total	
Agriculture	4,747	30.0	5,151	27.4	404
Industry & Mining	2,038	12.9	2,939	15.6	901
Petroleum	43	0.3	51	0.3	8
Electric	120	0.8	140	0.7	20
Construction	1,140	7.2	1,595	8.5	455
Transportation & Suez Canal	704	4.4	854	4.5	150
Trade, Finance and Insurance	1,679	10.6	2,036	10.8	357
Tourism, Hotels & Restaurants	145	0.9	243	1.3	98
Sub Total of Productive Sector	10,616	67.0	13,009	69.0	2,393
Real State	219	1.4	241	1.3	22
Social & Personal Services	1,413	8.9	1,684	8.7	271
Public Utilities, social Insurance & Government Services	3,577	22.6	3,852	20.5	275
Sub Total of Social Services Sector	5,209	33.0	5,777	31.0	568
Total	15,825	100.0	18,786	100.0	2,961

Source: Ministry of Information State Information Service. (1997). Yearbook 1997: Fourth 5-plan of socio-economic development (1996-97 / 2001-02). Egypt State Information Service Net (SIS): [On-line]. Available: http://www.sis.gov.eg/public/yearbook97/html/soc1803.htm. (Percentages were added.)

In 1991, technical secondary schools witnessed a development of the second reform. This time the focus was on improving the performance of students graduating from technical secondary schools, particularly the industrial schools.

2. THE MUBARAK–KOHL PROJECT FOR PROMOTING TECHNICAL EDUCATION AND VOCATIONAL TRAINING

Along with ERSAP, the government's policy of employment included creating new job opportunities to encourage self-employment and promote labor-intensive industries. The economic development

dependent on the commodities and manufactories exports requires a skilled labor. Accordingly, improved educational quality, especially technical industrial programs, remains a priority for generating skilled labor.

The idea of the Mubarak–Kohl Project includes adopting the dual system of German technical education in Egypt.[46] It is widely known that the high standard of the German dual system and the high qualifications of its workers are an important contributor to Germany's economic success. President Hosny Mubarak and former Chancellor Hellmut Kohl established Egyptian-German cooperation in 1991 to implement a dual vocational educational system in Egypt, benefiting from the German experience. In 1992, the MOE in Bonn agreed to assist Egypt technically in developing its technical education and vocational training by introducing the German dual system in Egypt's technical industrial secondary schools three-year program. (MOE, 2000a; Sayed and Diehl, 2000).

Based on a study of the World Bank in 1989, Egyptian technical secondary schools graduates (especially those from three-year programs) are believed to be ill suited for employment in the informal economy. Employers prefer the graduates of five-year programs and Productive and Vocational Training Department (PVTD) schools, believing that three-year program graduates have neither a sound theoretical education nor a good practical education.[47] MOE estimates of the theoretical content of curricula in three-year programs range from about 60% to 67% in the first and second year and from 56% to 69% in the third year; the humanistic-scientific (as opposed to technical) content of education is about 37% (Gill and Heyneman, 2000, p. 411). The "traditional technical education system is hardly able to produce the highly skilled workers and technicians demanded by modern industry" (Sayed and Diehl, 2000). Curriculum in technical secondary schools is mainly concentrated on theoretical content; the practical training relevant to subjects and concerning professional daily work is hardly provided. Private companies complain about the poor performance of technical

[46] Under the dual system, students have to spend two days (per week) in a technical secondary school (one day for general education and one day for technical theoretical subjects) and four days (per week) in a company for practical training.

[47] The Ministry of Industry's PVTD administers programs for vocational training, productivity improvement, and management development in its 40 centers. In 1994, these centers had an annual enrollment of roughly 40,000 students in three-year programs and shorter "made-to-order" programs. The three-year programs use the dual system: all instruction, which is 80% practical and 20% theoretical, is in the centers during the first two years, but in the third year, more than 80% of training is on-the-job instruction in participating enterprises. The traditional clientele of these schools has been public enterprises, but PVTDs now face the challenge of reorienting their training to meet private sector needs (Gill and Heyneman, 2000, p. 405).

secondary school graduates, while the graduates complain about limited opportunities to find a proper job (Sayed and Diehl, 2000).

Furthermore, in the traditional technical school system, the private business community has no integral role within the vocational education and training process. Within the economic reform of promoting growth in the private sector, an organizational structure to ensure adequate participation and to safeguard private sector interests in the vocational/technical education system is required. The objective of implementing the dual vocational education and training system in Egypt was to ensure cooperation between public and private sectors in order to improve student performance in technical industrial secondary schools (Sayed and Diehl, 2000, MOE, 2000a).

a. The Dual System: National Public-Private Partnership and German Cooperation

Under the dual system, students have to spend two days per week in a technical secondary school (one day for general education and one day for technical theoretical subjects) and four days per week in a company for practical training. The duration of the program is three years. The basic principles of the dual vocational/technical education system in Egypt are in line with the time-tested German dual system, whereby the state and the private sector share the responsibilities for vocational/technical education of youth. The state (MOE) provides schools, technical equipment, workshops, teachers and any other resources that are required for theoretical and technical education for two days per week, while private companies train and provide work experience for apprentices four days per week. In addition, private enterprises voluntarily pay each apprentice a small salary and contribute to the technical equipment of school workshops and laboratories. German experts as well as representatives of the private sector and the MOE have participated in preparing the theoretical studies and practical curriculum of the dual system (MOE, 2000a; 2000b; Sayed and Diehl, 2000).

The Germany Federal Ministry of International Cooperation and Development also participates in this project by: a) providing long and short term German experts, b) supplying the technical secondary schools involved in the project with training aids and teaching materials, and c) supporting training for Egyptian teachers, instructors, and trainers either in Germany or Egypt (MOE, 2000a).

b. Implementation and Development of the Mubarak-Kohl Project

Following the signing of the cooperative agreement between Mubarak and Kohl, a series of workshops between German and Egyptian experts was held to investigate the feasibility of implementing the project. The conclusion of these workshops was to start with pilot technical secondary schools in the new communities in cooperation with volunteer private companies and factories. The target group of the project's school was mainly students who had successfully finished their basic education and who matched the MOE's regulations for enrolling the traditional technical secondary schools (MOE, 2000a).

The preliminary stage of the project was implemented in September 1995 in Tenth of Ramadan City in collaboration with the local Investor Society. Initially, 220 male and female students were admitted to three specializations: mechanical, electronic, and clothing industries. The project extended to the Six of October and Sadat Cities in September 1996 in collaboration with two investors. In January 2000, the project had been extended to 20 cities and 450 companies and factories in nine specializations: mechanical, electronic, clothing, heavy equipment, nursing, textiles, leather making, sanitation, and electrical fittings. The number of apprentices had grown to 4,500 and the total number of teachers and instructors attending training courses in Germany and Egypt grew from 48 to 1,760 (see Table 8).

Table 8. Development of the Dual Vocational Education and Training System in Egypt

Number of	Sep 1995	Jan 2000
Schools	2	25
Apprentices (Male and Female)	220	4,500
Teachers and administrators involved directly in the project	36	650
Participating companies	65	450
Building and construction companies	-	175
Cities where the project is implemented	1	20
Teachers attended training courses in Germany	14	280
Instructors attended training courses in Germany	-	80
Teachers attended upgrading courses in Egypt (more than once)	14	900
Instructors attended upgrading courses in Egypt (more than once)	20	500
German short term experts	8	75
German long term experts	4	8

Source: Sayed. A. and Diehl. M. (2000). *Egyptian-German technical cooperation promotion of Technical Education and Vocational Training (TEVT) system: Mubarak-Kohl initiative: A program on the TEVT-reform of Ministry of Education and Economy*. Cairo, Egypt; MOE, Arab Republic of Egypt. (2000a). *Mubarak-Kohl initiative for promoting the Technical Education and Vocational Training in Egypt*. Cairo, Egypt.

c. THE MUBARAK–KOHL PROJECT FROM THE STATE, PRIVATE SECTOR, AND STUDENTS' VIEWPOINTS

Policy makers and private sector leaders consider the Mubarak-Kohl project one of the most successful social projects in Egypt. The project's development became the basis of a new national vocational/technical secondary education system. The organizational bodies became dissemination

centers responsible for establishing new dual vocational/technical secondary schools.[48] Policy makers as well as private sector leaders agreed that the dual system was effective. They are determined to contribute to and support the national dissemination of the dual vocational/technical secondary education system. The future plan of the project includes implementing the dual system in two other specializations: construction and service-related trades. According to actual plans, the numbers of the dual system's apprentices and graduates will grow to 30,000 by 2004 (Sayed and Diehl, 2000; MOE, 2000a; 2000b).

Sayed and Diehl (2000) visited two of the project's workshops, in the cities of Fayed and Tenth of Ramadan, and interviewed some apprentices. They concluded that the place was clean and tidy. Each apprentice had his/her own space and tools so that each one of them can train in his/her skills individually and at the same time share their experiences and compare their results with each other. However, many Mubarak-Kohl apprentices, in spite of being satisfied with the dual system, are still dreaming to continue their studies at university. Their choice to enter one of the project's schools was due to their consideration that these schools are better than the traditional technical secondary schools.[49]

For almost two decades, the MOE's policy for secondary education reform aimed at increasing the enrollment and the quality of technical secondary schools in order to provide skilled labor for the private sector, whereas many students in technical secondary schools dream of entering a university. The economic and educational reforms that have been implemented since 1990 have led to changes in the enrollment rates in general (33%) and technical (67%) secondary schools in 1995-96.[50] Perhaps these shifts in enrollment along with changes in labor market conditions helped to decrease the unemployment rate to 8.8% in 1996-97 from 9.2% in 1986 (State Information State Service, 1997). However, the unequal enrollment among secondary general and technical schools still exists;

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[48] The organizational bodies include: the MOE, the Supreme Steering Committee (which is responsible for the project's planning and monitoring and was established by ministerial decree no. 114 on May 16, 1993), Project Policy Implementation Unit (which is responsible for the implementation stages of the project and was established on May 5, 1993), and Regional Units of the Dual System (MOE, 2000a).

[49] As a 16-year-old female said, "I enrolled first at a normal technical secondary school but then I heard about Mubarak-Kohl project and decided to choose this way. I am very pleased with this decision. Everything I learn here is interesting and I hope after my graduation I can enter a university" (Sayed and Diehl, 2000). The interview findings thus emphasize the fact that "the Egyptian education system is university-oriented. This is due to decades of factual and legal public job guaranties for university graduates. Manual work is seen as symptom of losers, although only a small percentage of students enter the universities" (Sayed and Diehl, 2000). Richards (1992), based on his study of higher education in Egypt, said "graduates of technical secondary school feel that their education is 'second-class' since it does not lead to a Bachelor [university] degree" (p. 4).

[50] It is suggested that the changes in general and technical enrollment rates are due to the GOE extending the post-secondary education options during the 1990s to include the following categories: Public Universities, Private Universities, Non-University Technical Institutes (Middle and High Level), Technical Teacher Training Colleges, Industrial Education Colleges, Sector-Specific Institutions, Vocational Education and Training Centers, Public Sector Training Centers, and Enterprise-Based Training Centers (Program Planning and Monitoring Unit, 1998). It is suggested that they are also due to the promotion of self-employment and labor intensive strategy instead of the government employment guarantee.

moreover, it caused serious problems. First, 60% of the country's unemployed population in 1998 held secondary degrees. The large majority (76%) of unemployed secondary graduates were graduates of technical secondary schools (World Bank, 1999a; Arab Republic of Egypt, 1999). Second, the current system ensures that approximately 65% of students at the end of the preparatory level are streamed into technical secondary school with little chance of accessing university education, while less than 35% are streamed into general secondary schools and virtually guaranteed a seat in a university. Based on an official report, employment of technical secondary school graduates is as low as 20%. "There is clearly inequity in this system. Choices in life and vitality of the society substantially depend on the result of the final preparatory exam" (PPMU, 1998). Most of the graduates from technical secondary schools are neither enrolled in the university nor are they employed in the manual workforce. In contrast, the majority of graduates from general secondary schools in most cases have guaranteed university education and a better chance for and position in the marketplace.[51]

How can an educational reform balance the enrollment rates between general and technical secondary schools in order to provide equal post-secondary education opportunities and decrease the high unemployment rate among graduates from technical secondary schools? The GOE faced this question in the mid-1990s, and in response, carried on a comprehensive secondary education reform that included both technical and general secondary schools. Since 1996, there have been international as well as national cooperation with the MOE in order to develop the required comprehensive reform. Such reform is known as SERP.

3. SECONDARY EDUCATION REFORM PROGRAM (SERP)

One of the educational policy principles in Egypt is "identifying an enlightened educational policy within a democratic framework" (MOE, 2000b). A democratic framework for educational policy means ensuring people's participation in decision-making (associated with the government's educational reform plan) through preparing and holding national conferences. The preparation for a conference includes organizing workshops and selecting representatives from different national sectors (i.e., public and private enterprises, political councils, mass media, university and school staff, and parents). They participate in discussions about an educational level or issue in order to identify problems and make recommendations, which are considered a guide for the government's educational reform plan.[52]

Though such a policy reflects a kind of democratization, it still forms the basis of centralized decision-making practices in the GOE. It is a way to ensure the cooperation between researchers, practitioners,

[51] In the 1998-99 school year, the Supreme Council of Universities decided to enroll 81% of the total general secondary school graduates (261,923) in the universities and 19% of the total graduates in the public and private higher and middle institutes (*El Ahram Daily Newspaper*, July 24, 1999).

[52] The educational level or issue of discussion is determined by the government.

and policy makers in defining an educational reform and at the same time keep the final word in the hands the policy makers. It is also an effective communication strategy to announce the government's interest in implementing a new reform in education and prepare the people to understand, participate in, and accept the government's reform policy.

SERP was developed in light of this policy. The MOE and Program Planning and Monitoring Unit (PPMU) organized a series of workshops in 1998 as a preparation for holding national conference on secondary education.[53] Participants in the workshops were representatives of the World Bank and national sectors.[54] The participants from the national sectors in these workshops were public and private enterprises' leaders, People's Assembly and Consultative "Shura" Councils' members, mass media specialists, university professors, parent-teacher councils' members, and MOE Experts (MOE, 2000b). The MOE and PPMU chose the 20 to 25 participants for each workshop and selected qualified local specialist in the areas of curriculum, assessment, teacher development, and technology to serve as discussants and group leaders for the workshops (PPMU, 1998).

The purpose of the workshops is to come up with specific recommendations that can serve as stimuli for the national conference and provide a basis for identifying a secondary education reform program of financial assistance from the World Bank. Workshop participants identified a number of problems in addition to the unequal enrollment between general and technical secondary schools: a) governors and business leaders viewed the two existing streams of general and technical secondary schools as lacking both quality and flexibility (World Bank, 1999b; PPMU, 1998; Arab Republic of Egypt, 1999);[55] b) educational specialists expressed concern that students are streamed into general or technical secondary schools or into university or non-university institutes on the basis of a single examination score, which can be raised significantly by exam-specific tutoring and present memorization-based assessments;[56] c) all participants agreed that technical and general secondary schools' courses need to

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[53] In 1996, a PPMU was created as a non-revenue-generation entity. The PPMU is responsible for coordinating and monitoring implementation of the Education Enhancement Program supported by the World Bank and other donors.

[54] The participation of the World Bank is due to its involvement in Egypt's ERSAP since 1991; the reform is one building block of a comprehensive sector strategy for education and human resource development in Egypt, which includes the World Bank and other donor funding (such as USAID) under the Education Enhancement Program, Basic Education Improvement Program, and proposed Higher Education and Skills Development projects (World Bank, 1999, p.2).

[55] As Egypt becomes increasingly integrated into the international economy through the free trade agreement with the EU and other initiatives, pressure on its labor force to become internationally competitive is increasing (World Bank, 1999b; PPMU, 1998; Arab Republic of Egypt, 1999).

[56] This assessment is considered unable to profile cognitive abilities or provide information that would be useful both to teachers and to future employers (World Bank, 1999a; Arab Republic of Egypt, 1999). The wide practice of private tutoring in secondary education in Egypt has introduced an element of social bias, which partly defeats the democratic purpose embedded in the constitutional provision of free public education. The proportion of students from low-income families who could offer private lessons were much less than from middle- and upper-income families. Given emphasis on rote learning, the ability to pay for private tutoring becomes a determinant of

be revised with a focus on the similar core courses offered in both schools, that pedagogical methods are out of date, and teachers need professional support to improve their content knowledge and pedagogical method; and (d) all participants criticized that the education system is highly centralized, with agencies providing overlapping functions, such that teachers who have returned from overseas complain of being unable to implement changes due to resistance from principals and head-teachers (World Bank, 1999b).[57]

These problems of the secondary education system, in addition to the major problems caused by the imbalanced enrollment between general and technical schools, directed the recommended reform toward three major objectives: a) increasing the proportion of general versus technical schools; b) improving the quality of both general and technical instruction (through modernizing curriculum and assessment methods and promoting teacher in-service training); and c) increasing administrative and management efficiency (World Bank, 1999b; PPMU, 1998; Arab Republic of Egypt, 1999). According to the workshops' recommendations, in 1999, the GOE developed a long-term strategy of secondary education reform program with input from the World Bank.

a. Objectives and Interventions

The broad goal of SERP is to improve quality and equity of secondary education. As mentioned earlier, the imbalanced enrollment rate between general (35% enrollment) and technical (65% enrollment) secondary schools supported by private tutoring and lack of both access to university and employment opportunities, created an unfair situation between students in general and technical secondary schools.

In developing the reform strategy, extensive discussion for the restructuring of the secondary education system took place. The option of merging the technical and general streams was rejected as inappropriate by the MOE as well as workshop participants for two reasons:

1) The lack of resources in the education system: In spite of the fact that many nations have implemented a comprehensive secondary school system based on core and elective subjects with technical/general programs incorporated in a single school, there has been considerable debate about the efficiency of such a system. However, one clear lesson that has emerged is that structural reform as such does not alter student achievement unless it is accompanied by substantial changes in the curriculum (PPMU, 1998).

academic success. A survey study found that 80% of students of lower-class origin got poor grades at the General Secondary Certificate Examination upon which access to university education is based (World Bank, 1991, p. 76).

[57] Since 1993, the MOE has initiated an International Teacher Training Program for science, mathematics, English, and French language teachers. Partnerships are with universities in the United Kingdom, the United States of America, France, and Ireland that have facilitated this type of training. Initially, 339 teachers participated in 1993-94. The program has expanded over the years and included 1717 teachers in 2000. A total of 7,005 teachers have been involved in this type of training that focuses on new content areas, alternative pedagogy of teaching and the use of technology (MOE, 2000b).

2) Merging the technical and general streams would be politically infeasible (World Bank, 1999b, p. 5). With million of students enrolled in technical and general secondary schools, as one specialist put it, "any major change in the system structure would inevitably affect hundreds of thousands of families and could provoke political resentment similar in its intensity to that following the suspension of some consumer subsidies in 1977" (Richards, 1992, p. 10).[58]

In this context, the secondary education reform program is planned as follows: 1) converting enough technical schools to general schools in order to provide a 50/50 enrollment balance; 2) redesigning curriculum and assessment to provide a core curriculum (common core courses incorporating the use of technology) for both general and technical secondary schools; 3) training teachers in the use of technology and multimedia in the classrooms; and (4) establishing improved and efficient management structures and practices at the MOE, governorate, district, and school levels to assure efficient service delivery and its adaptability to the reform program. This slower reform would allow for changes in all branches of the secondary system without major disruption of the current system (World Bank, 1999b; PPMU, 1998; Arab Republic of Egypt, 1999).

i. Balancing Enrollments between Technical and General Schools

Access to general education for the majority of students is limited by the number of schools available. The 50/50 enrollment balance will be achieved through converting 315 commercial schools to general schools. Some statistical facts further explain the choice of the commercial schools. In 1994-95, there were 999 public technical schools: 385 industrial schools, 524 commercial schools, and 90 agricultural schools. In addition to the public technical schools, there were 250 private commercial schools, 4 private industrial schools and no private agricultural schools (Gill and Heyneman, 2000, p. 403). Commercial school enrollment comprises 30% of total secondary (general and technical) school enrollment and 45% of total enrollment in technical schools (see Tables 6 and 9); based on Gill and Heyneman's study of the labor market in Egypt, demand for workers in services has eased since 1992. In this context, there is less demand for commercial school graduates (i.e., service workers) and a greater supply of public and private commercial schools. In 1999, of 2,699 public secondary schools, 1,507 were technical schools and 1,192 were general schools (World Bank, 1999b); thus, by converting 315 technical schools to general schools, the balance between the number of schools in both tracks will be achieved. These facts together explain the choice of converting 315 technical schools from commercial schools.[59]

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[58] In 1977, along with the implementation of the open-door policy, the GOE began to cut the subsidies. Decision-makers had misjudged their political environment. The subsidy cuts triggered the 1977 food riots, which shattered much of the support for former president Sadat had carefully built up. The government backed down and did not again attempt such a radical cut in the social safety net (Federal Research Division, 1990).

[59] William Darnell, Senior Technical Advisor at the Academy for Educational Development, indicates more reasons for such choice: a) commercial schools' curriculum in Egypt is very outmoded for the 21st century job market in addition to high unemployment among the schools' graduates, lacking the basics of math and communications; b) industrial schools also have high unemployment but it would be very expensive to be converted and there is a project considering a reform of industrial schools; and c) agricultural schools are considered the best equipped for students in that field (via e-mail responded to a question about converting the 315 commercial schools).

Table 9. Student enrollments in secondary education by program, general, vocational, and teacher training across selected school years

Secondary Education Program	1985-86		1991-92		1995-96		1999-00	
	Enrollment	%	Enrollment	%	Enrollment	%	Enrollment	%
1. General	173,000	35.4	174,273	30.6	270,198	32.7	353,858	35.0
2. Technical	295,600	60.6	394,717	69.4	556,014	67.3	656,167	65.0
2.1 Industrial	106,400	21.8	177,932	31.3	251,111	30.4	293,187	29.1
2.2 Commercial	151,200	31.0	168,421	29.6	248,071	30. 0	297,212	29.4
2.3 Agricultural	38,000	7.8	48,364	8.5	56,832	6.9	65,768	6.5
3. Teacher	19,400	4.0	…	…	…	…	…	…
Total	488,000	…	568,990	63.0*	826,212	96.7*	1,010,025	96.7*

Source: National center for Educational Researches and Development. (1986). *Development of education in Arab Republic of Egypt: 1984/85 and 1985/86*. Cairo, Egypt; MOE. (1993). *Statistics of education 1991-1993*. Cairo, Egypt.; MOE. (1996). *Statistics of pre-university education 1995-96*. Cairo, Egypt.; MOE (2000). *Statistics of pre-university education 1999-00*. Cairo, Egypt..

(*) Total secondary school enrollment rate of total preparatory school graduates.

In selecting the 315 commercial schools to be converted to general schools an effort was made to include a representative distribution of the schools and students from the 27 governorates and to balance male and female enrollment and rural and urban enrollments.[60] This careful selection would hopefully promote positively impact of the reform on all underprivileged students (World Bank, 1999b).

The selected commercial schools will be targeted for rehabilitation and upgrading programs to meet standards for general schools. The rehabilitation will provide improved access to technology, science labs, equipment and learning resource centers for schools and communities (World Bank, 1999b; Arab Republic of Egypt, 1999).[61]

A complete picture of the balance between general and technical schools includes promoting flexible mobility between the two schools through providing Common Core Courses (CCCs). This would provide a chance for students to transfer from one program to another.

[60] Female enrollment as compared to total enrollment at the technical schools range from 35% to 84%, depending on governorates, but is particularly high in the commercial schools, at 61%.

[61] The General Authority for Education Building is responsible for school renovation and maintenance and works with the MOE to develope criteria for site selection.

ii. Improving Curriculum and Assessment

The MOE is committed to revitalizing learning through developing CCCs in selected subjects and improving elective courses. CCCs include Arabic, English, mathematics, science, and social science. Implementation of CCCs in both general and technical secondary school is a mechanism that allows students to transfer between streams.[62] It is also a gate to integrate computer literacy programs for both students and teachers through promoting the use of technology in teaching and assessment.

Since 1994, the curriculum in general secondary schools has been redesigned to include compulsory, specialization, and elective subjects. Courses in the first year of general secondary school (Grade 10) are common for all students. They include Arabic, foreign language-first, foreign language-second, biology, chemistry, physics, mathematics, geography, history, and art; in addition to three courses (national education, physical education, and religion) that are not included into the total final score of Grade 10 but are required to pass in order to enter Grade 11. In Grade 11, students must choose art, science, or mathematics programs for Grades 11 and 12.[63] Compulsory courses for all programs in Grade 11 consist of Arabic, foreign language-first, foreign language-second, and mathematics-I are confined to Arabic and foreign language-first in Grade 12. Specializations as well as elective courses vary according to the variety of each program.[64]

Curriculum in all technical secondary schools includes general subjects, professional subjects, and practical drills. The general subjects in commercial, industrial and agricultural schools consist of: Arabic, foreign language, general science, and mathematics (in addition to the three subjects of national education, physical education, and religion). Professional subjects vary with the type of school, as do practical studies and drills. Compulsory and elective or general studies in general and technical secondary schools account for one-half to one-third of the total curriculum based on the type of school and the level of program.

Accordingly, the changes with the implementation of CCCs in both general and technical secondary schools would include: 1) reaching a same quality and quantity standard of selected subjects that are already offered in both secondary schools under different categories (compulsory, elective, or general

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[62] The current curriculum allows general school students who repeatedly fail the first-year exam to enroll in technical schools, while technical school students are not allowed to enroll in general schools under any condition.

[63] Each program gives students access to specific colleges that are appropriate to their specialization program (i.e., the science program leads to a medical college). A comprehensive program including the three programs is offered as an option for students who would like to increase their access after graduation to include all available colleges.

[64] For example, the Mathematics program includes Mathematics II, Physics, and Chemistry as specialization subjects. Students in the mathematics program choose two elective subjects: one from Art and the other from Science program subjects. The final grade of secondary academic schools' final examination consists of the total score of Grade 11 and 12. A national final examination is held at the end of the Grades 11 and 12 school years. Students have the right to improve their grade in some subjects through a summer exam. Such exam strategy increased the demand for private tutoring to be not only during the school year but also during the summer vacation.

studies); 2) providing the selected courses (Arabic, English, mathematic, science, and social science) as CCCs in both secondary schools in order to ensure flexible and equivalent education; and 3) modernizing the teaching and assessment techniques through the use of technology and student report profiles.

The MOE also plans to design curriculum-based assessments (e.g., for students' abilities to organize and carryout a project through the use of technology) and to use the student report profiles with the school based-assessments in order to provide a wider range of information about student's achievement and ability (World Bank, 1999b; Arab Republic of Egypt, 1999).[65]

The MOE will review existing specialization fields in industrial secondary schools and consolidate them from 110 to a maximum of 20 broad occupational groups according to the needs of business and industry. In addition, the MOE will identify and provide the human resources and teacher training programs needed for both the CCCs and grouping courses (World Bank, 1999b; Arab Republic of Egypt, 1999; PPMU, 1998).

iii. Integrating Technology into Classroom Practice and Teacher In-Service Training

The GOE has already invested heavily in the provision and use of new technologies in order to revitalize teaching and provide means of communication within the education system.[66] The reform program will support this continued focus through the provision of computer technology for classrooms, with an emphasis on utilizing these technologies for improving teaching and learning as well as for upgrading marketable technology skills. The training in use of technology has three main objectives: 1) to make teachers computer literate; 2) to incorporate the use of technology into core curriculum content; and 3) to enhance teachers' abilities to evaluate their students and to use a standard that is appropriate to the new curricula in order to reduce reliance on private tutoring (World Bank, 1999b; Arab Republic of Egypt, 1999).

Based on the World Bank's recommendation that much of this training can be contracted out to local firms, as there is not enough resources in the education sector to provide all the training needed (World Bank, 1999b), the UNESCO Cairo office in collaboration with the PPMU organized two workshops on the use of Information and Communication Technologies (ICT) in math and science

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[65] The idea here is "to publish student results in percentile profile format based upon available final exam sub-scores" (e.g., 90% math, 99% Arabic, 82% social studies, 89% science, 62% English). This would improve student-career fit. It would also cause the University system to be more responsible with the student selection process" (William Darnell, via e-mail response).

[66] During the 1996-97 school year, computer use has been introduced as a topic of study in 2000 schools, including 200 kindergartens, 600 primary schools, 800 preparatory schools, and 400 secondary schools, in addition to 200 other schools in 1997-98. Moreover, the MOE launched an educational satellite TV channel in the summer of 1998 (Ministry of Information State Information Service, 1998).

education in secondary schools.[67] The MOE hosted the two workshops in October and November 2000. Each workshop succeeded in training 27 participants, who included supervisors and senior teachers from four governorates: Cairo, Giza, Ismailia, and Kaluobia. The purpose of the workshops was to provide participants with training in basic ICT skills and with guidance in designing classroom materials for math and science courses.[68] In addition, a transformational training program is planned for preparing teachers in the selected commercial secondary schools for teaching relevant subjects in general secondary schools (PPMU, 2001).

iv. Local School Management and Accountability Procedures

The long-term reform strategy emphasizes improving management structures and practices at the national, governorate, district, and school levels through "reviewing and evaluating existing management policies, practices, decrees/laws, and decision making processes at all levels, preparing a proposal for changes in management structures, and developing training programs for senior managements, administrators, and teachers" (World Bank, 1999b; Arab Republic of Egypt, 1999). In this context, the proposed improvement of management structures doesn't include changes in the centralized management policy and decision-making practices, while the decentralized implementation of such policy at the local and school levels will be promoted through increasing the authorization of school management to have more responsibilities for physical resources, financial management, and instructional materials, and also through supporting the community's and private sector's involvement in the school management.

The government planned to define new roles for and promote the authorization of parent councils, which would include monitoring the quality of education at the school and governorate levels. Training would be provided to prepare parent council members for their new role. In addition, the government planned to develop and implement a new school-funding methodology that encourages private sector and community participation in obtaining needed physical resources and instructional materials (World Bank, 1999b; Arab Republic of Egypt, 1999).

In order to achieve a quality assurance mechanism linking basic, secondary, and post-secondary education, the reform strategy will create guidelines for reporting performance, sharing information, and providing feedback at all educational levels (World Bank, 1999b; Arab Republic of Egypt, 1999).

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[67] There are only 8 teacher training centers under the supervision of the MOE.

[68] Some arrangements are made for organizing two other workshops for participants from four governorates in Upper Egypt.

b. THE REFORM CHALLENGES AND RISKS

SERP consists of cooperation among groups with different interests: school managers, teachers, parents, students, private-sector participants, and policy makers. Differences among these groups are one of the reform's critical risks. "The participation of parent councils and private sector in school management and funding would increase the level of teachers and managers' accountability" (World Bank, 1999b). When combined with the implementation of the new curriculum and the challenges of shifting school staff from traditional management and teaching techniques to modernized methodologies, this increased accountability could cause teachers and managers to resist the reform changes.

Since private tutoring is a major source of income for teachers, providing measures that would reduce the need for private tutoring increases the risks. The current school system (which depends on textbook and examination syllabus, lecture as a teaching technique, distribution of the curriculum to include a detailed review of content before each set of examinations, and assessment exams that stress memorization) made private tutoring essential for students' achievement. Integrating the use of technology in teaching the CCCs, implementing curriculum-based assessment, and using student report profiles would reduce reliance on private tutoring, which could cause teachers to oppose the educational reform.

The implementation of the new curriculum may also be resisted by students, as well as their parents, who are used to the current curriculum, particularly those from upper and middle classes who are able to pay for private tutoring. This, in addition to the parents' ability to participate in school funding and management responsibilities, would greatly decrease the expected achievement of the reform's objectives.[69]

In this context, developing a pilot strategy before expanding the reform to all general and technical secondary schools is required.

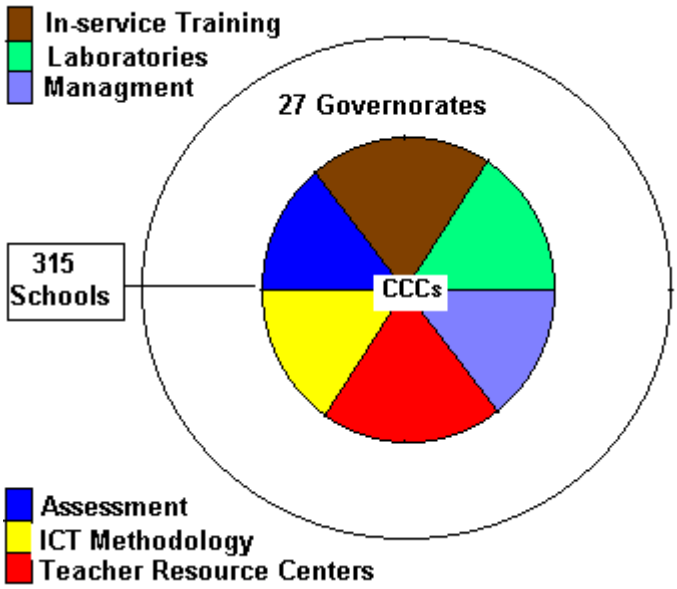
4. SECONDARY EDUCATION ENHANCEMENT PROJECT (SEEP)

The first stage of the twenty-year SERP consists of a seven-year reform project from 1999 to 2006, known as the Secondary Education Enhancement Project (SEEP). SEEP is being implemented in cooperation between the GOE and the World Bank. It focuses on the following: a) converting 315 of the commercial schools to general schools; b) implementing the CCCs, which would incorporate the use of technology in the 315 project schools; c) providing the required materials and facilities; d)

[69] William Darnell considers the memorization-assessment of the current final exam in general secondary school one of the reform's risks. He mentions that "the substance of the questions on the exam...if modified to reflect problem solving and critical thinking, which are stated objectives of curriculum reform, would reduce the impact of tutoring. If the question format is not changed...no curriculum reform will meet the objectives."

management and financial resources through promoting the parent council's, private sector's and community's involvement. SEEP as a pilot strategy would help in grasping problems, preparing to face them, and modifying the long-term reform before expanding it in all general and technical secondary schools.

Figure 2. Framework of the Secondary Education Enhancement Project



The total cost of SEEP is US$250 million, including US$50 million of the World Bank loan (see Table 10). In the beginning of the school year 2001-02, the first 100 commercial schools will be converted to general secondary schools. The rehabilitation program of these schools began in October 2000. The establishment of the required multi proposed science laboratories should be finished in April 2001. At the same time, the governorates in which the selected schools are located should announce opportunities for enrollment in these schools as general secondary schools (PPMU, 2001).

E. Conclusion

During the 1980s, Egypt experienced macroeconomic imbalance, heavy external debt, distortion in the allocation of labor force, over-staffing of government and public enterprises, unequal education and employment opportunities, and a high unemployment rate, particularly among secondary and post-secondary graduates. A combination of factors generated such a dramatic situation, including the economic crisis of the 1980s, the limitation of private economic activities, the labor force strategy (which guarantees a government job to any university graduate), and the educational policy that aimed to increase the proportion of technical secondary schools versus general schools in order to restrict the university enrollment.

Table 10. The cost of the Secondary Education Enhancement Project, by component

Components	Category	Cost (US$M)	% of total
Improving quality and opportunity:		232.6	93
Converting 315 schools	Physical resources	199.0	79
	Institution building	13.6	6
Curriculum; assessment; teacher training; and integrate technology into classroom	Policy; monitoring and evaluation; and instructional materials	20.0	8
Management and Accountability		17.4	7
Supporting involvement through parent council activities and school improvement fund	School improvement grant	4.4	
Developing new quality assurance mechanisms of the education system	Policy	5.9	2
Building capacity through providing professional development for governorate and school managers, studies and technical assistance and support for the project implementation agencies	Institute building (training, technical assistance)	7.1	3
Total		250.0	100

Source: World Bank. (1999). *Egypt-secondary education enhancement project*. Project Appraisal Document. p. 6.

A comprehensive economic reform allowing the private sector to achieve rapid growth became a perspective for both economic development and job creation. Accordingly, reform of the educational system was required and should parallel the economic reform in order to provide a labor force with skills that match the new job requirements.

In 1991, the GOE embarked on the comprehensive ERSAP supported by donors. The major objective of this reform was to allow the private sector to achieve rapid, efficient, and sustainable growth and to encourage, once more, the production of commodities for export, which will hopefully reverse employment trends in agriculture, making it a source of employment creation. It was recognized that the agricultural sector would have relatively little impact on the demand for labor and that the complete picture for employment includes a strategy of labor-intensive, manufactured exports, with a greater role for the private sector; both can create many jobs.

Three secondary education reform projects have supported the economic and employment strategies: 1) the Industrial and Agricultural Vocational Secondary Experimental School, established in 1990; 2) the Mubarak–Kohl Project for promoting the Technical Education and Vocational Training, established in 1995; and 3) the Secondary Education Reform Program (SERP), established in 1999.

The establishment of the experimental industrial and agricultural vocational schools in 1990 aimed to increase the enrollment rate in the agricultural and industrial schools (as opposed to commercial schools) but based on students' choice of their program in the 1999-2000 school year, the commercial schools alone represented 45% of the total enrollment in technical secondary schools, whereas agricultural and industrial schools together represent 55%, including only 10% for the agricultural schools. The agriculture's employment share decreased from 38% in 1986 to 30% in 1996-97.

The idea of the Mubarak–Kohl Project was to adopt the dual system of German technical education in Egypt. The project's major objective was to ensure cooperation between public and private sectors into improving students' performance in technical industrial secondary schools. Between 1995 and 2000, the project schools and companies expanded rapidly in 20 cities across the country. The project on its development became the basis of a new national vocational/technical secondary education system. Students, however, in spite of being satisfied with the dual system, are dreaming to continue their studies at the universities.

The experience of students who attend general and technical secondary schools is quite different. Most of the graduates from technical secondary schools are neither enrolled in the university nor employed in the labor force. In contrast, the majority of graduates from general secondary schools, in most cases, have guaranteed access to university education and better opportunities to find employment.

The MOE, in cooperation with the World Bank, planned the secondary education reform program to include: a) converting enough technical schools, specifically commercial schools, to general schools in order to provide a 50/50 enrollment balance; b) designing a shift in curriculum and assessment to an effective paradigm that focuses on grouping existing subjects in order to provide a strong basis for a core curriculum (CCCs incorporating the use of technology) across both general and technical secondary schools; c) training teachers in the use of technology and multimedia in the classroom; and d) establishing improved and efficient management structures and practices at the MOE, governorate, district, and school levels to assure efficient service delivery and adaptability to the reform program.

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IV. The Reform of Secondary Education in Indonesia during the 1990s: Improving Relevance and Quality through Curriculum Decentralization

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Abstract

The aim of this case study is to examine basic education expansion and curriculum reform policies, in junior secondary education in Indonesia during the last decade. The case study focuses on the context of educational reform to understand its rationale; the content and process of the reform policies, and the main difficulties and barriers to effective reform implementation. The case study is based on a review of policy documents and interviews with key participants in the decision-making and monitoring process. The reforms in the 1990s were concerned with providing quality basic-education opportunities through basic education expansion, enhancing science and technology, and decentralizing the administrative structure of curriculum development. The main difficulties in implementing the policies were: a lack of parents' consciousness of the value of junior secondary education caused by poverty, in particular after the economic crisis in 1997; and in the case of curriculum decentralization, the implementation gap between the province and district level, lack of appropriate teacher training, teachers' passive attitudes toward the policy, and lack of resources.

Since the 1970s the education reform policies in Indonesia have invested in human resources guided by the goal of pursuing national development. The main reform initiatives in the 1990s focused on the quality of education. A number of efforts have been made to implement this policy, such as: 1) conducting training for teachers of Junior Secondary School (JSS, SLTP) and Senior Secondary School (SSS, SMU), 2) providing textbooks both for teachers and students, 3) supplying and distributing science equipment to schools, and other activities related to the improvement of educational quality. The essential reason for focusing on basic education is that although Indonesia has a large population and extensive natural resources, its economy and education system are not highly developed (MOEC, 1998; MONE, 2000; SEAMEO, 2000).[71]

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[70] We would like to thank Professor Mark B. Ginsburg (University of Pittsburgh), whose feedback and assistance has been very helpful in the shaping of the paper from the beginning to the final draft. We would also like to thank emeritus professor Don Adams (University of Pittsburgh), John Hatch (USAID), and colleagues of this project, who gave us meaningful comments to finalize this paper: Leonora Anyango, Jorge Gorostiaga, Nagwa Megahed, Simona Popa.

[71] Basic education is in principle a general education of nine years, consisting of six years of primary education and three years of junior secondary education. The goal of basic education is to provide the students with basic skills to develop themselves as individuals, members of society, citizens and members of mankind as well as to prepare them to pursue their study in secondary education (SEAMEO, 2000).

The reform of basic education in the 1990s at the national level comprises various areas, including basic education expansion, enhancing science and technology, curriculum decentralization, improving the quality of textbooks and teachers' guides, developing the effectiveness of in-service teacher training, and promoting a conducive school and classroom environment (MOEC, 1998). In this case study, three main reforms, including basic education expansion, enhancing science and technology, and curriculum decentralization, draw attention to improve the quality of basic education[72]. The context of the reforms, the content and process of the reforms, and the evaluation of the reform policies are discussed in order to understand the rationales and the lessons that can be learned from the implementation.

A. Social, Political, and Economic Trends in the 1990s

In order to understand educational reforms implemented in the 1990s, it is helpful to mention the recent political and economic trends along with the basic social and demographic factors. Indonesia is a country made up of about 17,000 islands with nearly 6,000 of them inhabited. The five biggest stretch across some 3,200 miles of equatorial oceans. It is the fourth most populous country in the world, with 224 million people who are ethnically and linguistically diverse, approximately 36% of whom are under 15 years old. The largest part of the population, approximately 60%, lives in Java, the smallest of the five major islands. Indonesia has more than 300 ethnic groups that speak more than 250 dialects. Indonesia, however, has a national official language, Bahasa Indonesia, which is spoken throughout the country from Sabang (western part) to Merauke (eastern part) (Purwadi and Muljoatmodjo, 2000; SEAMEO, 2000; SIRI, 2001).

Despite its diversity and size, Indonesia has one of the world's most centralized systems. For example, in the case of fiscal system, in fiscal year 1999, revenue collected by the central government amounted to 94% of general government revenue, and about 60% of sub-national spending was financed by central transfers. Since the early 1970s several proposals have been made for fiscal decentralization, but the key elements have never been implemented. Indonesia's overly centralized system results in tenuous links between local demands and decisions on local public services, as well as a weak mechanism for local accountability (World Bank, 2000).

Today, however, Indonesia is on the verge of a major decentralization process. Triggered by the krismon,[73] the resignation of the Soeharto government, and the weak public supports for the Habibie government, demands for political and fiscal decentralization increased in 1998. In April 1999, the

[72] Basic education in Indonesia includes junior secondary education.

[73] The term krismon refers to the "krisis moneter" or financial crisis that hit Indonesia from August 1997. It is commonly used in Indonesia to describe both the monetary crisis and ensuing economic slump, which followed in 1998-99 (Manning, 2000).

Parliament hastily adopted two laws requiring that drastic decentralization measures be implemented in fiscal 2001 in a 'big bang' fashion. The Law on Regional Governance specifies the political and administrative responsibilities for each level of government under a decentralized structure. Under the laws, all public service delivery functions will be decentralized to sub-national governments except defense, foreign affairs, monetary and trade policy, and the legal system. Most public services, including education, health, and infrastructure, will be delivered by districts and cities, with provinces performing only the role of coordinator. The previous hierarchical relation between provinces and districts or cities will be abolished. Any task not specified in the law will fall to districts or cities (Malo, 1995; World Bank, 2000).

The context of the krismon in Indonesia was the extraordinary, and largely unexpected, turnaround in economic performance starting in the last quarter of 1997 and extending through most of 1998. Although the economy had recovered stability by late 1998, there remained severe doubts regarding the capacity to quickly return to a high economic growth path. This meant labor markets would continue to experience considerable strain, with consequent adverse effects for social and family welfare, and for children. Increasing economic uncertainty to the end of 1997 was followed by a year of economic instability and decline. The economic collapse – a 14% fall in total GDP in 1998 – and instability was triggered by the dramatic fall in the value of the Rupiah and massive capital flight in the first quarter of 1998. As political unrest increased, culminating in the downfall of Soeharto in May 1998, the entire sector of the economy was paralyzed by the collapse of the Rupiah. Indonesia had lost economic stability, so prized by the Soeharto government (Soesastro and Basri, 1998; Manning, 2000).

The social impact of the krismon has been severe. Indonesian families were adversely affected by twin effects of a sharp cutback in labor demand and a high rate of inflation through 1998. By early 1999, an estimated half a million people had lost their jobs in the modern sector, and probably at least a million more in small scale industry and trade. In all, this amounted to a loss of around 5% of total non-agricultural wage employment and closer to a 10% to 15% loss of total employment in industry and trade. Real wages declined by around 30% to 50% in the same year as nominal wage growth lagged far behind the increase in consumer prices (Manning, 2000).

Struggling to minimize the social effects of the krismon, the government has placed particular emphasis on the welfare of children and women, who are most vulnerable to significant declines in household income, the high rate of inflation and a sudden fall in government spending. In education, the main concern has been regarding dropouts from junior secondary school as a result of the krismon. The government sought to protect the education budget from the effect of inflation by maintaining expenditure in real terms in 1998-99 (Manning, 2000).

B. The Indonesian Education System and Secondary Education Reform

1. THE INDONESIAN EDUCATION SYSTEM

The Indonesian education system recognizes two different paths of education: school education and out-of school education. Nowadays, Indonesia basically adopts a 6-3-3-4 school education system, which consists of 6 years of primary, 3 years of junior secondary, 3 years of senior secondary, and 4 years of tertiary education (see Figure 3). In 1994, Nine-Year Basic Education was declared universal with an ambitious target that all children ages 7 to 15 years will get basic education by 2004. Basic education consists of primary and junior secondary school education. Senior secondary schooling consists of two streams: general and technical/vocational (MONE, 2000; SEAMEO, 2000; UNESCO, 2000).

Regarding educational provision, as presented in Figure 4, student enrollments have increased drastically in the past three decades. This was due to the educational policy, focusing on the provision of basic education for all.[74] As a result, the net enrollment ratio of primary schools jumped from 58% in 1969 to 95% in 1996.[75] The gross enrollment ratio of junior secondary schools jumped from 17% in 1973 to 73% in 1997-98, while that of senior secondary schools jumped from 9% in 1973 to 39% in 1997-98 (see Table 11; MOEC, 1999; MONE, 2001; National Development Planning Agency/ BAPPENAS, 2001).[76]

2. SECONDARY EDUCATION REFORM CONTEXT

Secondary education reform efforts in the 1990s can be largely classified into three categories according to the main actors and funding agencies. Besides the Indonesian government, the World Bank and the ADB have participated since 1990 in financing various projects with different funding scales. In the case of national reforms, the government has focused on the curriculum in order to improve quality education including curriculum decentralization: the Second Twenty-Five Long-Term Development Plan – PJP (1994-2018) for the completion of the Nine-Year Universal Basic Education program, the relevance of education to development, and improving the capacity to master science and technology. The following reforms also focused on curriculum parts, in particular science and

[74] Before the 1994 policy, a system of six years of compulsory education for primary school-age children was institutionalized in 1984 (MONE, 2000).

[75] Net enrollment is the number of students enrolled in a level of education who belong in the relevant age group, as a percentage of the population in that age group (World Bank, 1998).

[76] The gross enrollment ratio is the number of students enrolled in a level of education, whether or not they belong in the relevant age group for that level, as a percentage of the population in the relevant age group for that level (World Bank, 1998).

Figure 3. The education system in Indonesia

Age	Year	Stage	Level	In-School					Out of School
27	21	Doctorate	Higher Education	Institute	S3				OPEN UNIVERSITY
26	20								
25	19				S2				
24	18	Post Graduate							
23	17								
22	16	Under Graduate			S1	POLY	ACA	D3	
21	15							D2	
20	14							D1	
19	13								
18	12	3	Senior Secondary Education	GSS	VSS	RSS	OSS	SSS	
17	11	2							
16	10	1							
15	9	3	Basic Education	Junior Secondary School (Regular and Open JSS)					Package B Program
14	8	2							
13	7	1							
12	6	6		Primary School					Package A Program
11	5	5							
10	4	4							
9	3	3							
8	2	2							
7	1	1							
6		A	Kindergarten Pre-School (Not Compulsory)						
5		B							

GSS: General Secondary School
VSS: Vocational Secondary School
RSS: Religious Secondary School
OSS: Service Secondary School

v: Special Secondary School
S1: First Degree
S2: Master Degree
S3: Doctoral Degree

Source: [On-line]. Available: http://www.seameo.org/members/indonesia.htm

Figure 4. Dynamics of educational provision

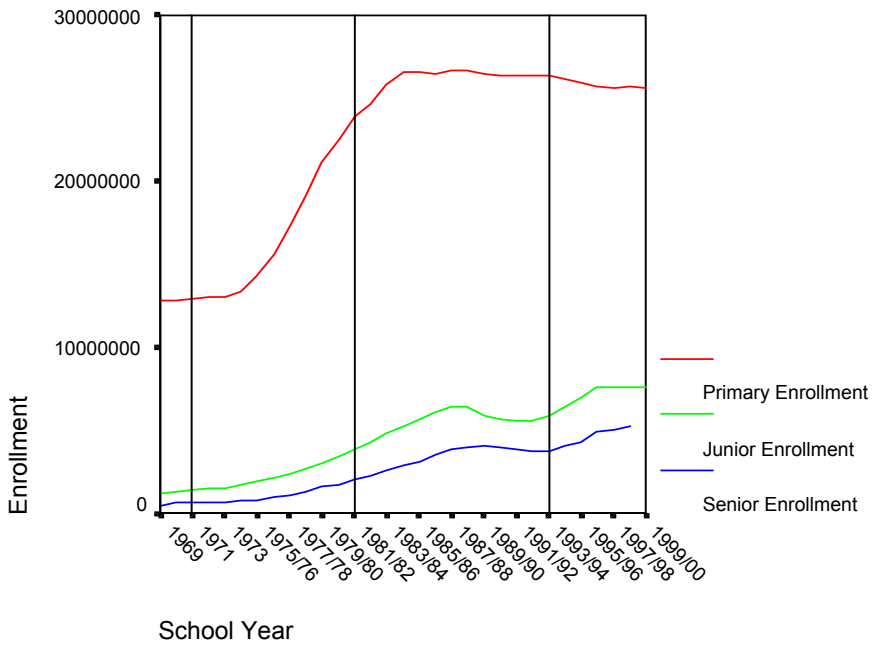

Table 11. Number of primary and secondary students and dropout rates, 1970 to 2000

	Primary enrollment	Junior secondary enrollment	Drop-outs (JSS)	General secondary enrollment	Drop-outs (GSSS)
1970	12,821,618	1,292,230			
1975-76	14,280,157	1,900,155			
1980-81	22,551,870	3,412,116			
1985-86	26,550,915	5,669,966			
1990-91	26,348,376	5,686,118	7.35%	2,610,253	3.84%
1995-96	25,948,574	6,945,433	3.25%	2,577,341	5.09%
1999-00	25,614,836	7,600.093	4.14%	2,896,864	3.28%

JSS: Junior Secondary School GSSS: General Senior Secondary School

Source: Ministry of Education and Culture. (1998). Education development in Indonesia. Jakarta: Office of Educational and Cultural Research and Development. [On-line]. Available: http://www.pdk.id/statistik/dikmen/sltp/SLTP_tab-52.htm; http://www.pdk.go.id/statistik/dikmen/smu/SMU_tab-54.htm

technology: the School Science Curriculum Reform (1994, 2000), and the Basic Technology Education Pilot Project.

The World Bank has mainly supported the financing of teacher development programs and junior secondary reform, which varied at national and regional levels with funding from about $60 million to about $154 million, since 1996. There are four big projects still in process including the Secondary School Teacher Development Project (1996-2001); the Sumatra Junior Secondary Education Project (1996-2002); the Central Indonesia Junior Secondary Education Project (1996-2002); and the Sulawesi Tenggara Junior Secondary Education Project (by 2002). The main purposes of the projects are expanding access to junior education and improving the quality of junior and senior secondary education. They also are concerned with improving pre-service and in-service teacher education and strengthening the management of the education system at all levels.

The Asian Development Bank has also been involved in junior secondary education reform at the provincial and national level. One of them, the Second Junior Secondary Education Project (1997-2003) focuses on supporting the government's efforts to provide quality JSE to all eligible children in the five provinces of South Kalimantan, North Sulawesi, Central Sulawesi, and Southeast Sulawesi. The other, Private Junior Secondary Education (started in 1995), is aimed at the development of teaching and supporting staff, financial support to students, and sector management improvement.

3. THE RATIONALE FOR SECONDARY EDUCATION REFORM

The reforms being examined in this case study mostly occurred in the 1990s and draw attention to basic education expansion and quality. During this time, the Indonesian government started the Five-Year Development Plan (Repelita V). The government established the new goals for national development via educational development, focusing on the quality of education in the early 1990s, with achievements in the universal education program for the 7- to 12-year-old population group. With the establishment of these new goals, the government paid more attention to expanding Nine-Year Basic Education, and focusing on the quality of education, took the initiatives of curriculum reforms at both the national and local levels. The following lists some rationales for the government to take on these reform policies.

First of all, there were significant economic changes and a perceived need to adopt new knowledge and technological innovations in responding to the rapidly changing society. In the 1990s the economy grew considerably. For example, the GDP per capita increased from $490 in 1988 to $2,800 in 1999, even though Indonesia was hit in 1997 by a severe financial crisis. In the early 1990s, the increasing demand for knowledge and skills in industry, especially in the high technology and service sectors, created an urgent need for basic education expansion and curriculum reform. In addition to developing students' intellectual capacities, it was recognized that education must foster and promote

creativity, the ability to process and utilize information, adaptability and self-training (UNESCO, 2000). Therefore, a principal motivating factor for secondary education reform is the desire to design educational programs that will more adequately prepare young people for the job market while providing the human resources necessary to ensure sustainable national development (Byron, 1999).

Second, there were cultural-value shifts because of the rapid move towards globalization and marketization, both of which heightened government interest in further development of local resources. Therefore, attention was placed on the richness of wild life, marine life, and other natural resources in Indonesia. This idea was also applied to the cultural realm, and therefore the emphasis to encourage young children to keep, preserve and enrich local arts and crafts, dances, cultural rituals and traditions in the curricular offerings, while preparing them to be part of the modern global society. The government perceived future generations to be responsible for preservation, so through curriculum reform it wanted children to learn more about its natural resources. This reform reflects locally oriented curriculum, including agricultural subjects, animal husbandry and fishery, and wood making. "There was a deep concern to develop curriculum fostering respect for, and preservation of, cultural traditions and indigenous values and ways of life" (Byron, 1999). Here the curriculum functions as a vehicle to synthesize various ethnic groups' uniqueness. In order to give students the opportunity of access to the various aspects, relevant subjects needed to be introduced both in the existing national curriculum (social studies, sciences, and languages) and in the local content curriculum (Ibrahim, 1998).

Third, there was a new emphasis on the use of information. This means that more and more individuals and families became aware of the value of knowing about things happening around them through the development of information technology communication. This development also affected information technology education in the schools (UNESCO, 2000). Concern for information technology was reflected in the commonly expressed goal of improving the quality and scope of vocational education, strengthening science and technology education, developing competence in information technology (IT) skills by introducing or expanding the use of IT in the classroom, and focusing on the teaching of a wide range of cognitive, social and personality skills so as to develop the capacity for flexibility, problem-solving, creating, and life-long learning (Byron, 1999).

Finally, there was an increasing concern to expand the basic education period and to eliminate the dropout rate in the primary and junior secondary levels. As the government recognized that the six-year primary level basic education had been successfully completed with great efforts since the early 1970s, a new policy was called to cover the urgent need for universal education and to deal with child labor, mainly related to high dropout rates (nearly 20% before completing grade 6 in 1993-94 and 8% in junior secondary level in 1990-91) at the national level.

In summary, various factors (including global trends toward globalization and marketization and national economic growth before the krismon in 1997 to 1998) impose the government to pursue

secondary education reforms. In particular, the completion of six-year basic education at the primary level was followed by the expansion of the nine-year basic education period. Also, the awareness of regional diversity and autonomy at the national and local levels to meet each region's needs and conditions brought curriculum decentralization and locally oriented curriculum.

C. The Reforms Affecting Secondary Education

1. BASIC EDUCATION EXPANSION

With the recognition since the 1970s that the main issues for national development reside in human resource development, the Indonesian Ministry of Education and Culture (MOEC) decided to pursue the following main strategies: equity in educational opportunity; relevancy of education to development; educational quality; and efficiency in educational management (MONE, 2000).[77]

Concerning equity in educational opportunity, Indonesia has made great strides in basic education expansion over the last two decades. At the beginning of the fourth period of the Five -Year Development program (1984), the Indonesian Government implemented a scheme of Six-Year Compulsory Education for primary school age children (7 to 12 years in age). The result of this new policy was significant as the participation rate at the primary level increased to 92% in 1993 compared to 79% in 1983. With this great achievement of enrollment rates at the primary level, the compulsory level was extended to age 15, through Junior Secondary School, in 1994.

The policy addressed as Wajar Dikdas (compulsory nine-year basic education) is meant to give ampler opportunities to Indonesian children to get basic education. The extension from six to nine years of basic education is also intended to alleviate the problem of child labor and to keep children in school until they reach the level of education at which they are able to keep up with the changing demands of their society, especially for those who cannot afford to pursue higher levels of education. One of the implications of basic educational expansion at that time was the provision of educational opportunities for about six million children at the basic education age, who did not have the opportunity for further study (MONE, 2000)).

The main target of this policy was to reduce the dropout rate and to bring children of school age to the school. This policy addressed the main concern from government and international organizations after the krismon and still continues through strong government efforts. Although educational expansion in Indonesia has kept pace with that of most East Asian countries during the last decades, two aspects of performance in the education system are particularly relevant to child labor: high

[77] In 1999, the new Indonesian President Abdurrahmam Wahid restructured the Ministry and named it the Ministry of National Education (MONE, 2000).

dropout rates from primary school and low continuation rates from primary to junior secondary school.

In the case of high dropout rates at the primary level, although the large majority of children completed their primary schooling, a significant proportion dropped out of school before completing grade 6 (nearly 20% in 1993-94). These high dropout rates decreased to 3% in 1999-2000 as the government paid attention to the expansion policy. The rate at the junior secondary level was 12% in 1988-89 and continued to decrease to 3% in 1995-96, then suddenly increased to 5% in 1996-97 after the krismon (see Table 12).

The second indicator, low continuation rates from primary to junior secondary school, also represented the relationship between educational participation and child labor. The largest loss in enrollment in the education system has continued to occur after the completion of primary school, when only approximately three-quarters of primary graduates (ages 12 to 14) go on to junior secondary school. For example, in rapidly industrializing West Java, the continuation rate was only a little over 60%. This figure suggests that approximately 15% to 20% of children ages 12 to 13 and 20% to 30 % of children ages 14 to 15 are not enrolled in school and could potentially be involved in the work force (Manning, 2000). According to the Ministry of National Education (MONE) (2000), the continuation rate (transition rate) from primary to junior secondary school increased from 62% in 1993-94 to 72% in 1999-2000 nationally. This increase may have resulted from a strong effort to prevent dropouts and to bring children to school from child labor at the national level.

In a time of economic crisis, one might expect more of those already out of the education system to seek work, regardless of enrollment trends. Adding to this is the large numbers of children unable to continue in school as a result of the krismon. Data from a survey of the 1998-99 academic year indicate that enrollments fell by less than 2% nationally at the primary and junior secondary levels (see Table 12). At both the primary and junior secondary levels, total enrollments had begun to decline in 1996-97, largely due to changes in the age structure of the population. Although this accelerated in 1998, the changes were relatively small. Moreover, they were not significantly different for boys and girls in urban or rural areas. The above discussion has suggested that any increase in child labor arising from the krismon may only be indirectly related to poverty. More children are engaged in work partly because their parents have experienced a significant loss of income, and need their children's help in supplementing the family income.

However, children from poorer families are more likely to dropout of school early and to be called upon to support their parents. Table 12 indicates that during the krismon, the decline in enrollments was greater in poorer sub-districts, especially at the junior secondary level (Manning, 2000). The large fall in enrollments in urban areas, Jakarta and poorer sub-districts are especially understandable at the

Table 12. Percentage change in enrollments in primary and lower secondary schools (JSS) in Indonesia, 1996-98

	Rural	Urban	Jakarta	Total
PRIMARY				
1996-1997	-0.6	-2.1	-2.2	-0.9
1997-1998				
TOTAL	-1.7	-1.1	-0.1	-1.6
PUBLIC	-1.4	0.1	0.6	-1.1
PRIVATE	-4.0	-4.3	-2.0	-4.1
LOWER SECONDARY				
1996-1997	1.3	-6.2	-5.1	-0.7
1997-1998				
PUBLIC	2.8	-2.0	-1.9	1.9
PRIVATE	-7.3	-10.0	-16.0	-8.3
BOYS	-0.3	-7.0	-8.9	-2.0
GIRLS	0.2	-5.5	-8.2	-1.2
POORER SUB-DISTRICTS	-1.6	-7.3	-10.8	-2.7
TOTAL	**0**	**-6.3**	**-8.6**	**-1.6**

Source: MONE (February 1999). The impact of Indonesia's economic crisis on education: Findings of a survey of schools. Preliminary Report No. 02-0299. Jakarta (cited in Manning, 2000, p. 73).

junior secondary level, since the costs of schooling are often much higher than at the primary level. In addition to school fees and related costs, parents often have to pay for the food and to transport their children to attend secondary schools outside the village.

such as the "I am a School Student" (Aku Anak Sekolah) campaign supported by UNICEF (Manning, 2000; Polling Center, 1999).

Another program, called the "Free School Fee," originally started with six years of basic compulsory education and expanded into nine years of universal basic education in 1994. The main idea was that parents needed not to worry about school fees (including the tuition fee), but in reality, they had to pay for other educational expenses in public schools, such as fees for educational school activities (called the BP3 or Biaya Pelaksanaan Penyelenggaraan Pendidikan), school maintenance, and extra money for educational personnel in school. Even though there is no school fee, parents feel burdened to pay the extra money or the BP3. This large burden is one of the reasons parents discourage their children from further education.

2. CURRICULUM REFORMS FOR BASIC EDUCATION

Curriculum reform policies in 1994 can be discussed at both national and local levels. Curriculum reform efforts reflected the government's attempt to adjust global trends and to give the local districts in each province more autonomy to meet their needs and to reflect their local conditions. The policy at the national level was focused on the relevance of education to national development. In a sense, the ideas of human resource development for national development were closely related to emphasizing science and technology through national curriculum reform at the basic education level. At the local level, the Indonesian government tried to change the administrative structure of curriculum development, therefore regarding basic education, the Curriculum Development Center (CDC) transferred 20% of its authority to each provincial level.[78]

Regarding Indonesian curriculum design, who gets the power for designing the curriculum development? Generally, the CDC at the national level used to be in charged of changing the curriculum Other related groups, teachers' union, parents, and industrial organizations, used to voice their concern about curriculum matters but did not participate in the process. In general, there are two sites to effect and evaluate the curriculum: internal and external sites. The internal site gets through the CDC and the Directorate General of Primary and Secondary Education, dealing with designing and implementing curriculum. The internal site usually comes through the following steps: gathering the data from the educational setting through monitoring and meeting teachers and parents, and setting up

[78] Pusat Pengembangan Kurikulum dan Sarana Pendidikan, or the CDC, is one of the centers under the Office of Educational Research and Development, MONE, established in 1969. It was composed of four divisions, each headed by a director: a) Pre-school, primary and special education; b) Secondary education; c) Higher education; and d) Educational facilities (UNESCO, 2000). CDC's main functions are: a) to formulate technical policies on curriculum development and educational facilities; b) to conduct, coordinate, and guide the development of curriculum and educational facilities covering institutional objectives, program structure and basic course outline, teaching-learning models and methods, learning materials, etc.; and c) to formulate suggestions on government policy (UNESCO, 2000). The CDC is currently divided into primary, junior, general secondary, and vocational secondary curriculum development.

the curriculum. External sites work through related groups such as the teachers' union (PGRI or Persatuan Guru Republik Indonesia), parents, and industrial organizations. However, the teachers' union has not really played any role for curriculum development and its function is perceived as an agent for the political purpose of the government. Industrial organizations used to express their concern about the students' skills which did not meet the industrial organization's need. However, finally the initiatives for educational reform go to the central government. For example, in the 1994 curriculum reform, all groups and regions followed the initiative made by the CDC. The following two curriculum reforms were also no exception in terms of making policy and implementation process.

a. Curriculum Design and Implementation for Science and Technology at the National Level

The 1994 curriculum is partially centralized in order to maintain a similar level of educational quality in all regions of Indonesia, particularly for core subjects, such as math, science, Indonesian language, and social studies. The key characteristic of the 1994 curriculum is flexibility, especially in Basic Course Outlines (BCOs), which are guidelines for teachers and include curriculum content and teaching methods, as well as assessment tools. Teachers, therefore, can simplify and adjust the BCO content according to the students' immediate environment in terms of time allocation, modes of teaching delivery, methods of assessing students' achievement, learning resources, and teaching materials.

In the 1994 curriculum reform, the national government strongly emphasized science and technology content at the basic education level. Science is one of the core subjects in Indonesia's national curriculum. General science is taught to pupils from ages 4 to 16. After 17, the pupil can choose a science stream and specialize in science. Science is taught as an integrated topic with other subjects, as part of the intellectual development area. Science vocabulary and knowledge are introduced in the lower level primary school (grades 1 and 2). Integrated science or general science is taught in primary school (three teaching hours for grade 3 and six teaching hours for grade 4, 5, and 6, each teaching hour consisting of 40 minutes); combined science, which consists of biology and physics (six teaching hours, each teaching hour consisting of 45 minutes), is taught in junior secondary school; and the separate subjects of chemistry (three teaching hours), biology (four teaching hours), and physics (five teaching hours) are taught in the senior secondary class (MONE, 2000). The inclusion of technology in the Indonesian curriculum emerged in the1994 curriculum.

The 1994 curriculum faced more constraints in promoting science and technology than the government originally thought. These problems can be classified in five factors (Yulaelawati, 2000). First, the curriculum and assessment is constrained in terms of the rigidity of the syllabus and limited curriculum guidelines, which causes limitations in teachers' creativity in teaching science. The syllabus consists of objectives, topic and sub-topic descriptions, time allocations, methods, resources and assessments (evaluation methods). The syllabus is considered too rigid and limits the flexibility for creative teachers to develop activities based on teaching science that is adapted to the local situation.

The quality of teaching and learning science is seriously constrained by an excessive curriculum and assessment load. In junior secondary school, Indonesian children spend more time per week on their studies than other children: 31½ hours compared with 26 hours and 40 minutes in England and 27½ hours in Singapore (Boediono and Sweeting, 1999; Blazely, 1999). Moreover, since teachers have been subjected to teaching for the exit examination of primary, JSS, and SSS, students hardly get the real opportunity to learn science as a tool for investigating the mysteries of the world.

Second, pre-service training does not sufficiently meet the basic requirements for a successful teacher – a thorough understanding of the subject and well-developed skills in promoting student learning. Most institutions responsible for pre-service training emphasize mastery of the subject content to be taught in school but fail to tie their program to promoting problem solving learning in school.

Third, there is a lack of quality textbooks. The textbook provides science information and knowledge to understand and exercise. However, most textbooks fail to stimulate interest and to encourage good study habits to help students understand the processes of science and technology (Yulaelawati, 2000).

Finally, Slimming (1999) points out that many secondary schools have at least some serviceable laboratories with a moderate to good range of useable equipment. However, very few make more than the occasional use of these costly laboratories. This is because teachers lack training in the use of equipment and because theoretical science curricula, time constraints to prepare lab work, and examinations do not reward a laboratory approach to science.[79]

b. Curriculum Development at the Local Level: Curriculum Decentralization

At the local level, the 1994 curriculum reform policy brought a major change for the administrative structure of curriculum development. In the basic education program, the CDC transferred 20% of its power of curriculum development to each provincial level. This change shows that the existing curriculum is best described as partially centralized at the national level; each province, according to 1994 curriculum policy, must follow at least 80% of the national guidelines and up to 20% of course offerings and course syllabi can be of their own design, based on local content curriculum.[80] In the area of basic education, it is hard to say that schools and teachers are ultimately responsible for deciding what is taught and how it is taught. In fact, they must take into consideration any pertinent regulations, policies, and assessment at both national and provincial levels. Control over the

[79] Based on the recognition of the problem mentioned above, there have been two new main reforms that have been implemented in science and technology in recent years. These are: a) the 2000 school science curriculum reform and b) the Basic Technology Education (BTE) Pilot Project (Yulaelawati, 2000).

[80] It is written in the Decree of the Republic of Indonesia (Number 2 of 1989, concerning the Educational System in Article 37) that curriculum should be designed appropriately in order to meet national demands as well as local concerns (MOEC, 1989).

curriculum in Senior Secondary Education, however, is centralized. This means that 100% of the curriculum content was designed at the national level (UNESCO, 2000; MONE, 2000).

> Considering the highly centralized, top-down nature of Indonesian government, curriculum decentralization via the LCC program represented a significant departure from previous education policy not only in terms of curricular content but also in the roles and responsibilities assigned to educators. The MONE encouraged teachers to experiment with innovative pedagogies designed to revitalize instruction. Finally, the LCC documents identified strategies for managing the new program that attempted to create more democratic authority structures and expand the circle of actors involved in decision-making (Bjork, 2001).

Under the 1994 curriculum reform, the CDC developed a curriculum networking mechanism in 27 provinces (now 26 provinces) with strengthened professional support for teachers across the country. Through this mechanism, the Local Content Curriculum (LCC) was developed at the provincial level by the Curriculum Network Group (CNG).

i. The Curriculum Network Group

Indonesia has developed a curriculum network involving all regions of the country in elaborating and implementing the national curriculum according to local realities and needs. The network's tasks are to: a) plan, develop and implement the curriculum according to local conditions and needs; b) assist teachers in curriculum development through adjustments, elaboration and analysis based on the students' immediate environment and community needs and resources; and c) monitor and evaluate the implementation of both national and local content. The CDC provides advice, assistance and guidance to the network in the elaboration, analysis, monitoring and evaluation of curriculum (UNESCO, 2000; MONE, 2000). To sum up, the CNG was established in order: to: a) involve different regions in the development of national curriculum; (b) improve the level of professionalism in curriculum development at the various levels (national, provincial, district); and (c) establish a mechanism for curriculum dissemination and development at both national and provincial levels.

In 1994, the CNG included 27 professional groups, each consisting of 35 persons, from 27 provinces across the country. Members of each group within the CNG are selected from among the best teachers in the primary, junior secondary, senior secondary, and vocational schools, principals, supervisors, and Kanwil (Regional Office of Education and Culture) staff who possess the potential to be curriculum developers at the provincial level. The members are involved in a series of programs for intensive training, guidance for field experiences, evaluation, and revision.

ii. Some Accomplishments of Curriculum Network Groups

The following are some of the accomplishments of the curriculum network groups during the last few years (starting in 1993 up to 2000):

- the development and implementation of local content curriculum materials which consist of Basic Foundations and Programs at primary and junior secondary levels (from 27 provinces), BCOs, and Implementation Guidebooks (consisting of a teaching guide, assessment guide, and counseling guide;

- the adjustment and analysis of the national BCO of curriculum for primary schools, junior secondary schools, and senior secondary schools; and

- curriculum monitoring and evaluation of both national and local content curriculum at the provincial level.

iii. The Main Features of the LCC in 1994

As mentioned earlier, Indonesia is a multi-cultural society and the environment within and across provinces varies physically as well as culturally. Considering these social-cultural and physical variations, the existing 1994 curriculum for basic education adopted the LCC as follows:

- The LCC consists of several subjects, (e.g., local language, local culture, and work skills). Indonesia has 27 provinces and each province has a LCC which is suitable to its needs and potential;

- The LCC has a share of up to 20% of the school curriculum content; and

- The LCC must be developed at the local level under the responsibility of the regional officers of the Ministry of National Education and Culture.

The main goal of the LCC is to give students the opportunity to develop to some extent their abilities to suit the needs of their respective regions. The LCC objectives for the students are: 1) to gain a better knowledge of their immediate natural and social environment, and 2) to acquire basic skills, life skills, and income producing skills to become useful members of their communities. The LCC, therefore, in each province might vary in the following areas:

- Local Culture: local language, local arts, manners/morals, traditional dances, local wedding customs, folk games, local history, local music, and local singing;

- Basic and Life Skills: painting/drawing, typing, administration, commerce, trade, computer skills, electronics;

- Income Producing Skills: home industries, agro-industries, janur (coconut leaves) making, farming, fishery, cane work, wool craft, cooking, batik making, dress making, sewing, handicrafts, ceramic making;

- Environmental Education: marine education, planting, tourism, life in a metropolitan city; and

- Second Language: English in primary school, Arabic reading/writing, Al-qur'an reading/writing.

The subjects listed in Table 13 are required by both national and local levels in grades 1 through 9. In these grades, the nation provides guidelines for courses such as BCOs and Implementation Guidebooks. According to these guidelines, there are requirements for what students in grades 1 to 9 must study. Both national and local curriculum have guidelines, such as BCOs and Implementation Guidebooks. These guidelines provide information of what teachers should teach. Teachers, however, have some autonomy to make adjustments according to the students' immediate environment as well as their interests and needs.

Table 13. National Curriculum versus Local Content Curriculum

National Curriculum (80%)	Local Content Curriculum (20%)
Pancasila and civic education	Agriculture
Religion (Islam, Christianity, Catholicism, Hinduism, Buddhism)	Environmental education
Indonesian language	Computer and information
Reading and writing	Local culture – dance, local language, traditional games, etc.
Mathematics (Arithmetic)	English (PS)
Introduction to science and technology	
Geography	
National and world history	
Handicraft and arts	
Sports and health education	
Drawing	
English language (JSS)	

iv. Evaluating LCC Implementation for the Last Five Years

How can we evaluate the curriculum decentralization through LCC since 1994? To what extent has the reform brought real progress in education quality and, if no progress has been made, what obstacles have prevented progress toward LCC implementation for educational decentralization? According to data collected and analyzed through monitoring by CDC and case studies (Bjork, 2001;

Byron, 1999; CDC, 1999), there is some evidence that LCC has not produced any particular change of quality education in terms of actors involved in LCC implementation, although the administrative structure of curriculum development changed significantly.

On the provincial level, it appears that local actors (e.g., regional offices of MONE, teachers, principals, supervisors) are enjoying degrees of autonomy previously denied to them. Teachers are stimulating instruction with innovative pedagogies, and the curriculum is being redesigned to more closely match students' needs and interests. In reality, alterations originated by LCC policy have been minor. Teachers are not taking advantage of opportunities delivered to instructors to increase their power and influence. Instructors are supervisors and CNG members trained by the CDC and acting as curriculum experts in the district. According to the evaluation of LCC implementation, instructors have not responded by modifying the curriculum or experimenting with new instructional techniques. Moreover, parents and interested groups in the locality have not been invited to participate in the planning or management of the LCC program. With respect to LCC policy, schools are supposed to reorganize the curriculum into a new set of subjects. In some cases teachers are paying increased attention to connections between the subject matter they disseminate to students and the world outside, but the basic curricular foundation fastening instruction in junior secondary school has remained essentially the same as the previous curriculum (Bjork, 2001).

The following are some limitations and obstacles found in the LCC implementation which can be discussed according to the gap between province and district, lack of teacher training, teachers' attitudes toward the LCC, lack of resources, and lack of funding allocation. According to CDC monitoring as well as critique from fieldwork, there was no real match between the intention of the innovation and the implementation of LCC.

First of all, a gap between the provincial and district level appeared instead of the gap which had formerly been between the national and local levels. Originally, the CNG was expected to work with each district level through a basic concept-curriculum mechanism, but there has been a gap between what the LCC policy intended and what has been implemented during the last five years. Now, the system of curriculum decentralization is set up at the provincial level, but in reality some decisions made in the provincial level tend to not meet each district's needs and conditions.[81] The following example shows disparities between the provincial and district levels according to monitoring of LCC implementation in 1999: there is a school located on the border between West Java and Jakarta where there is no need for students to learn the local language (Sundanese), since in this particular area it is not widely spoken, but schools have to follow regulations made by West Java's regional office,

[81] There is also a good example showing an effective case for LCC. Java made a decision to make Javanese their local language and Sumatra as a different language or subject. For example, the Bali province offers English as LCC in primary school at the 5th-grade level (English is officially taught in 7th grade as a national core subject). This is an example showing that each province implements LCC based on their needs and interests. Bali is interested in earning money through tourism, so teaching English to their children is required for the primary school level.

meaning that students do have to learn Sundanese (CDC, 1999). This example reflects how the real implementation process causes differences in district levels. It means that not all CNG policies at the provincial level are suitable for each school in each district level.

Second, there was a lack of teachers who were supposed to teach the LCC. According to the 1999 official report that evaluated how the LCC was implemented at the school level, five provinces (Jambi and Lampung in Sumatra Island, Maluku Island, South Sulawesi, and East Java) showed that most of the local content subjects were taught by teachers who do not have any specific skills and experience, such as teaching specific traditional culture and local languages, and practical subjects (e.g., "Tapis" making in Lampung). No experts or local interest groups took part in school management through curriculum. Originally these subjects were meant to teach students through the participation of local experts. This situation told us that teachers at the local district level had difficulty following the regulations based on the LCC because of a lack of equilibrium between teacher education and LCC implementation. According to monitoring, teacher education under the higher education does not really respond to the innovation at the government level. They do not have any programs for supporting LCC implementation.

Another factor concerns teachers' attitudes toward the LCC implementation. Traditionally, teachers at the school level do not respond to the innovation, so they have been reluctant to follow directions written by the government because they do not have enough background knowledge or skills for the implementation. In fact, they do not have any necessary support from the government and provincial levels to develop their knowledge and skills. While it is easy for the government to establish policies, conditions at the school level are completely different. The LCC is not directly developed according to the students' needs and interests. Most teachers are concentrated on the national curriculum. According to Bjork (2001), teachers, as civil servants, respect the government, not students, parents, or the regional office of MONE (at the provincial and district levels of government). Therefore, loyalty and obedience tend to bring them the most concrete rewards. Teachers, principals, and supervisors are expected to faithfully deliver the national curriculum (core subjects) rather than to inspire their students to empower their intellectual ability. The emphasis on teacher as government employee rather than educator has important implications for the teachers involved in the implementation of the LCC. The government, with respect to reform through curriculum decentralization, is pressing teachers to more readily display the autonomous educator aspect of their job. Nonetheless, teachers are still defined as civil servants and their salaries continue to be paid by the national government. As government employees, teachers are evaluated using the same behavioral checklist used to rate all government employees. The bureaucratic process between teachers and supervisors at the local and provincial levels is still powerful, because teachers should follow the direction and guidelines made by the provincial level office (the CNG). In reality, teachers do not have the autonomy to choose relevant material, though the LCC was supposed to give teachers this autonomy.

There is also a lack of textbooks about LCC, since there are no writers who are expert in this area. Moreover, local publishers do not want to publish books for a small number of consumers, for the books used in any one district are not available to others and do not make profits. Even if there are a few books, it is not quite enough. Besides an insufficient supply of books, there is an inadequate number of school facilities, such as practicum classes and equipment which are considered to serve to bring the school and community activities together.

Finally, there is also financial constraints for teachers who are supposed to teach the LCC. There is no additional money and support for teachers who want to develop the LCC and who want to have regular meetings at the school/district level for LCC subject development. This caused a lack of participation in LCC implementation. Another problem can be found in the lack of funding allocation between the national and local levels. The rate of funding distribution is significantly less than the intention of LCC. Still, local districts have low autonomy and status to get and manage money in order to deal with local needs and conditions. Critics say the central government still controls the money and resources that are supposed to be allocated to the provincial and district levels.

Concerning the results of evaluation on the implementation of LCC, the government has to consider some factors relating to the policy implementation: 1) engage teachers, parents and interested groups in designing learning materials suitable to students' needs, interests and local potential; 2) maintain school leadership; 3) set-up a curriculum network in the district level in order to assist schools to develop relevant local curriculum; and 4) offer schools standard operating procedures in order to develop local learning materials by the regional office of MONE, but give teachers more autonomous roles in the implementation stage (Bjork, 2001; Byron, 1999; CDC, 1999).

D. Summary and Conclusion

The findings from this case study indicate that there are three main features of the 1994 education reform. These are basic education expansion, enhancement of science and technology at the national level, and curriculum decentralization. These changes are related to the general direction of secondary education reform in developing countries around the world and also refer to the unique features of the Indonesian social, economic, and political situation.

The first point concerning these changes is that the government has tried to provide quality basic-education opportunities in junior secondary education after experiencing a rapid growth of enrollments during the past decades. This change, combined with expanding six- to nine- year basic education, has focused on quality improvement for enhanced human resources. The primary barrier to the extension of basic education is the fact that many parents, particularly in rural areas, do not perceive the value of the junior secondary education. This mainly comes from attitudes of parents in the poorer classes. Parents often believe that time spent at school is time wasted and hope that their children will work in

small businesses and family farms. Still, about 6 million children at the basic-education age do not have the opportunity to go for further studies, and the number of primary school students continuing to junior secondary school has remained low. According to research, many children have dropped out of school or, rather, have not continued on from primary to secondary since the 1997 krismon. During the economic crisis in 1998-99, the decline in enrollment was greater in poorer sub-districts, especially at the junior secondary level. Also, the decline was especially marked in the Jakarta region, one of the krismon's worst-hit regions.

Enhancing science and technology at the national level was a response to globalization for national development and showed the global trends of the 1990s. In Indonesia, science is one of the core subjects in the national curriculum and the inclusion of technology, especially, emerged in 1994. Science is taught generally to the pupil in various ways of teaching strategies at all levels. However, in the implementation, this policy faced lots of problems that forced teachers and students to carry a big burden with not enough preparation in terms of teaching and learning. Also, according to the evaluation, none of the schools have enough facilities and texts to support ambitious planning for science and technology.

The third point is that Indonesia is implementing curriculum decentralization through the LCC. According to the 1994 curriculum policy, 20% of the power to develop curriculum at local levels was transferred from the national government to 27 provinces. The curriculum decentralization will be moved to more than 300 local districts and municipal governments that vary greatly in human and physical resource capability and readiness. However, according to the evaluation, it is found that the LCC has not produced any particular change in quality education from the expected outcome in terms of actors involved in the implementation and the curriculum development originally intended, although the administrative structure of curriculum development has changed significantly.

In conclusion, the general direction for secondary education reforms in Indonesia is that the government considers basic education expansion, including reduction of the dropout rate as well as the curriculum change, to be the most important aspects required for national development. With this belief, they have focused on curriculum development at national and local levels along with LCC implementation in responding to globalization, and national and cultural identity. Among these, both the development of science and technology and curriculum decentralization have the most importance to adapt to the rapidly changing society.

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V. Secondary Education Reform in Kenya: The Quest for Quality, Relevance, and Equity

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Abstract

This paper focuses on secondary education reform in Kenya and analyzes the quest for quality, relevance and equity that has punctuated reform efforts over the years.[83] The first part of the paper, thus, offers a historical overview of education reforms in Kenya, and discusses the number of commissions and reports written in the past without being implemented, or being implemented only in part, thus resulting in the duplication of many commission reports. The second part discusses the current situation of secondary education in Kenya and points at issues in need of reform. A comparison of the two most recent reform reports (MPET and Koech report) is made. The paper concludes that: 1) politics in Kenya play a big role in implementing education reform; 2) structural change (involving the number of years to be spent at every level of education) may not always be an answer to educational problems; and 3) the seriousness with which the suggestions of the commissions are implemented matter more than the mere appointment of commissions and committees.

A. Introduction

Educational reform in Africa still largely focuses on basic education. The struggle to achieve Universal Primary Education (UPE) and Education for All (EFA) still remains a major concern in many countries in sub-Saharan Africa. Secondary education reform is overshadowed by other pressing and urgent educational needs. Therefore, most African countries are battling with illiteracy, inequity, lack of quality and irrelevance of the education of their people. Thus educational reform takes the form of system overhaul.

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[82] I would like to acknowledge the effort of several people for making this project a success. Thanks to the consultants in Kenya: Lucy Kiruthu of the Ministry of Education, Kenya, and Benard Otieno of Kenyatta University for their dedication in sending me the information I needed. I am indebted to Gituro Wainaina of the World Bank for his invaluable help in sending the data and discussing several issues concerning this project. I am grateful to Clementina Acedo for directing this project. Her advice and patience went a long way in making it what it is. Thanks to Mark Ginsburg for the time he took to read the drafts and give comments for improvement. Working as a team was a very rewarding experience, and I would like to thank my colleagues: Nagwa Megahed, Simona Popa, Minho Yeom and Jorge Gorostiaga for their encouragement and help along the way.

[83] Quality is defined here as how knowledge through education is passed on: this involves matters like the curriculum, teaching materials, schools, buildings, teachers, etc. Relevance refers to education's ability to address the needs of the people (i.e., employment, lifestyle, etc.). It is further assumed that for education to be relevant to the people, it must address the issues of access and equity. It is through its availability to the people that its impact is felt.

Global market competition, growing access to primary education, and the new ICT are, however, creating a fast growing demand for more and better secondary education services. In many African countries, the demand for access to higher quality and more efficient upper-secondary education is growing fast as well (Bregman and Stallmeister, 2001).

Kenya is no exception, especially if the ideal of being industrialized by the year 2020 is to be achieved. Secondary education is at the center of this. By the take-off point into industrialization, the newly industrialized countries of Korea, Malaysia and Mauritius had achieved secondary school gross enrollment ratios of 42%, 34% and 30% respectively. By 1991, these ratios had risen to 88%, 58% and 54%, as compared to Kenya's 29% (MPET, 1998, p. 68).

The major aim of education in Kenya has always been to steer the country towards development, viewed as the accelerated production of material wealth. However, this is just the a means towards real development that entails providing basic needs, conserving the environment, and having the right infrastructure, among other things. The role of education can be summarized as assisting the establishment of the human resource base necessary for the generation of wealth and, more importantly, its application to the creation of a higher standard of living and improved quality of life (MPET, 1998, p. 29).

This paper focuses on secondary education reform in Kenya and analyzes the quest for quality, relevance and equity that has punctuated reform efforts over the years. The first part of the paper, thus, offers a historical overview of education reforms in Kenya and discusses the number of reports written in the past without being implemented, or being implemented only in part. The second part discusses the current situation of secondary education in Kenya and points at issues in need of reform. A comparison of the two most recent reform reports (MPET and Koech report) is made. The paper concludes that: 1) politics in Kenya play a big role in implementing education reform; 2) structural change (involving the number of years to be spent at every level of education) may not always be an answer to educational problems; and 3) the seriousness with which the suggestions of the commissions are considered and eventually implemented matters more than the mere appointment of commissions and committees.

B. Secondary Education Reform in Kenya: A Historical Perspective

1. THE OMINDE COMMISSION

The years after independence from Britain brought with them great hope for Kenyans. Africans had suffered discrimination economically, politically, socially, and academically during colonial rule, and it was time to live a life free of all these. Education was one of the areas where a lot of changes had to

be made since colonial education was along racial lines, with Africans getting the least advantage in the system.

In 1964, the Ominde Commission was set up to make the changes in the educational system. This commission was mainly concerned with national identity and unity.[84] The Ominde Commission, whose focus was secondary education, saw the need to reform the education system so that it became a way of changing people's attitudes and a means of establishing social equality (Rharade, 1997, p. 164). Secondary education was seen as a gateway to training the highly-skilled staff that Kenya needed.

Education was viewed as a productive investment, not only to the individual but also to the society as a whole. The Ominde Commission influenced the decisions that were made in the education sector for the following several years, especially the view of education as an instrument for development. The organization of education, therefore, was closely linked to the management of human resources and the labor market (Rharade, op.cit).

This view of education, which was influenced by the human capital theory, led to the growth of enrollments, especially in secondary schools; it was a growth that continued to be experienced even in the 1980s, as illustrated in Table 14.

Table 14. Primary and secondary school enrollments in Kenya, 1963-83

Year	Enrollment in primary education	Enrollment in secondary education
1963	890, 000	30, 100
1970	1420, 000	126, 800
1975	2880, 000	226, 800
1983	4320, 000	493, 700

Source: Rharade, A.(1997) Educational Reform in Kenya. *Prospects*, 27(1), 165.

It is clear from the above table that secondary education enrollment grew tremendously within the two decades after independence. The fact that secondary-school dropouts and university graduates were getting jobs acted as a catalyst to the tremendous growth in enrollment. Through education, there was a chance for individual mobility and a good life.

[84] The Ominde Commission was the first commission on education in Kenya after Independence. It was named after its chairman, Professor H.S Ominde. Its main objective was to carry out a survey on the existing education system (at that time) and offer recommendations on how to improve it.

However, these were the short-lived heydays that not any other crops of secondary school dropouts were ever to enjoy in Kenya again. Although formal education was expanding, it was not accompanied by economic growth. Thus, most dropouts were soon left out with neither jobs nor training. By 1970, secondary school dropouts began to experience unemployment (see Table 15).

Table 15. Activities of former secondary school pupils the year after leaving school

Activities	Year of leaving school and year of activities recorded				
Year leaving school	1965	1966	1967	1968	1969
Year of activities recorded	1966	1967	1968	1969	1970
Further education or training	45	50	49	45	50
Employed	40	39	40	33	17
Unemployed	2	1	1	15	16
Others and untraced	13	10	10	7	16
All activities	100	100	100	100	100

Source: ILO Report 1966 – 1970 (1972, p. 66)

2. FURTHER CHANGES TO THE KENYAN EDUCATION SYSTEM PRIOR TO THE 1990'S

The education sector faced the problem of unemployment in the 1970s and had the task of curbing it. Most secondary school dropouts still preferred being employed in offices as clerks, secretaries or managers (white-collar jobs). These were perceived as prestigious, as opposed to the technical, mechanical and agricultural jobs, which were viewed as demeaning (blue-collar jobs). The International Labor Organization (ILO), for example, started calling for change in the system since it had failed to address the employment needs of the country (ILO report, 1972, p. 237).

Changes to the Kenyan education system, prior to the 1990s, can be seen in light of both political and social aspects.

a. POLITICAL ASPECTS OF CHANGE

Under the self-government (i.e., after Independence), different changes were made to the education system. The structure was changed and the 7-4-2-3-system was adopted – seven years of primary, four years of lower secondary, two years of upper secondary, and three years of university (see Table 16). A common curriculum was introduced in all schools.

Table 16. The 7-4-2-3 System of Education

Primary School	Standard	1	
		2	
		3	
		4	
		5	
		6	
		7	Certificate of Education
Secondary Education	Form	I	
		II	
		III	
		IV	East African School Certificate
		V	
		VI	East African Advanced School Certificate
University	Year	I	
		II	
		III	

Source: Eshiwani, G.S. (1993). *Education in Kenya since independence*. Nairobi. EAEP.

Changes in the content of subjects such as history and geography were also carried out to reflect the building of a national identity. Secondary education received more attention than any other area of education. Fifteen years after independence, it still received half of the funds allocated to education.

Perhaps the most significant politically-influenced change in the education system was the abolition of school fees. A presidential decree in 1971 led to the abolition of school fees up to the 4th year of primary school (standard 4) in the arid and semi-arid lands (ASALs).[85] Then, in 1973, the same presidential decision was extended to much of the country up to the 6th year of primary school (standard 6). This measure had been recommended by UNESCO as a move towards UPE.

The expansion of the education system had not been adequately planned for and so it created new problems. The number of primary graduates grew at a tremendous rate and thus put pressure on

[85] The ASALs were seen as needing free education since the pastoral and nomadic population still highly regarded their culture and occupation as opposed to western education. This was to show that the government was thoughtful about them and to emphasize the importance of education. Doing this would also win support for the government from leaders in these areas.

secondary education. Therefore, many untrained teachers were hired to cope with the growing number of students. There was also the problem of wastage at the primary school level.[86] The free education decree, which was very famous among politicians at that time, failed.

To address the problem of wastage, the government proposed an emphasis on technical education so that those who were not able to go on to secondary school could receive training that might lead them to either self-employment or other jobs in the non-formal sector. In 1975, the National Committee on Educational Objectives and Policy (NCEOP) was formed and was concerned with the issue of unemployment. Eighty percent of primary school dropouts were jobless at that time. The committee's task was to review the achievements of the educational objectives after more than a decade since independence.

This led to the Gachathi report of 1976, which emphasized the provision of free primary education. The report also noted that there was a need to integrate secondary education with the non-formal sector in order to take care of school dropouts. This called for the need to introduce more technical subjects in secondary schools. The last grade in higher secondary education (Form 6) was to be a major recruiting stage, since only a few students could be absorbed by Kenya's only university.

Education and politics can hardly be separated in most cases. A number of institutions were set up to control education management at the national level: the Teachers Service Commission (TSC), set up in 1966, remains the sole employer of teachers; and the Kenya National Examinations Council (KNEC), set up in 1980, continues to be the sole body to conduct examinations outside the university (Cooksey, et al, 1994, p. 206).

The government, through the MOE, weakened all institutions charged with special responsibilities in education. Policymaking was increasingly separated from planners and professionals and often negated their advice, instead following the dictates of the political leadership (Cooksey, et al, 1994, p. 207).

The 1980s and 1990s were a time when Kenya faced political and economic difficulties. During that time, the whole African continent was experiencing political changes toward multiparty governments. Economic reform was seen as a twin partner of political reform, such that none could succeed without the other (Barkan, 1994, p. 1).

[86] Wastage is a term that includes both grade repeaters (i.e., children who are held back for one or more years, frequently for poor performance on the end-of-year or promotion examination) and dropouts (i.e., children who leave school before they have completed a cycle).

Structural adjustment policies implemented in the late 1980s and 1990s covered all the major sectors of the economy.[87] Education was not left out. The introduction of cost-sharing adversely affected secondary education due to the costs it placed on households.[88]

b. Social Aspects of Change

The education system before independence consisted of two stages of primary education, each comprised of four years. After the first four years was the end-of-primary-education examination that could lead to 80% of the pupils not continuing to intermediate school. After the abolition of this system, which was proposed by the Ominde Commission, the number of pupils going on to intermediate school increased tremendously. Many Kenyans continued hoping that their children would be able to go on to secondary school.

This in turn took a toll on secondary education, to which Table 14 attests. Due to social demands for secondary education, Harambee schools were built.[89] The number of Harambee schools increased rapidly from 80 in 1964 to 266 in 1966. This figure was higher than that of government schools, which numbered 199 in 1966.

At first, the standard of education offered in the Harambee secondary schools was low in the sense that students were performing poorly in national examinations. The teachers were untrained and the schools were ill-equipped. Efforts by the government to suppress the growth of Harambee secondary schools met with protests from the people, and the government finally took to improving the schools by providing qualified teachers and aiding them financially.

Institutions for vocational training were seen as an answer to the problem of unemployment. Many religious organizations started vocational training institutes, but the enrollment remained low. Still, few people were in favor of blue-collar jobs.

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[87] Between 1991 and 1993, Kenya was at an impasse with the IMF, the World Bank and major bilateral donors because of the lack of implementation of structural adjustment policies (conditions attached to the financial aid) (Ndulu and Mwega, 1994, pp. 112-113). It is also from the SAPs that cost sharing was born. Cost sharing affected secondary education in many ways. For example, in 1993, about 80,000 students were unable to take their Form One (first year of secondary education), even though they had been selected.

[88] The IMF policies of adjustment have resulted in a heavier burden on the poor. IMF policies have also favored cash crops over food crops, which has resulted especially in malnutrition among children (George, 1988, p. 95). Given that the poor spend 41% of its income on food, there is barely anything left for school fees, especially in secondary schools.

[89] "Harambee" means "joining or pulling together." Communities came together to build schools at their own expense so that their children could continue with secondary education. Most of the children who joined Harambee schools had not performed well in end-of-year primary school examination, so they could not get places in government secondary schools.

It is evident from the above that since independence there had been a tremendous growth in both primary and secondary education, but the tertiary institutions were not expanding equally as fast. There were moves towards vocational education, although such programs remained unpopular with school dropouts at all stages. The 7-4-2-3 system, therefore, was seen as failing as the tool of national development it had been intended to be.

C. The 8-4-4 Education System

Education, viewed by Kenyans as a vehicle for social mobility and national economic development, was not serving these purposes as the number of unemployed school-leavers rose.

1. WHY 8-4-4?

As early as the 1970s, the ILO report showed that there was a need to make changes to the education system in order to help reduce unemployment. The ILO recommended increasing the technical aspect. The first and second United Nations' "development decades," the 1960s and 1970s, also influenced the educational plans most third-world countries made after independence. The UN's main aim was to focus on the production of skilled manpower, reducing social inequalities and providing basic education for all.

The move by ILO towards vocationalizing education was supported by the World Bank. Thus, technical and vocational training centers were established with financial aid from developed countries. The International Development Agency (IDA) was instrumental in the equipment of secondary schools.

Kenya also experienced problems associated with the 7-4-2-3 system in that the presence of Harambee schools led to inequalities in education. Most of them were closed due to a lack of funds, which meant that only the ones in the economically stable (mainly urban) areas could survive. Therefore, economic and regional disparities were evident. Gender disparities were also evident in the sense that, although at the primary-school level the difference had narrowed, girls were still not well-represented at the secondary school level. For example, in 1963, 23% of girls attended secondary schools, while in 1980 the figure was 27%, an increase of only 4%.

Formal education is not solely to blame for this trend. Factors such as lack of qualified staff, centralization of management that allowed for little or no flexibility, and the rural-urban migration of qualified staff led to the dysfunction of the system. The problem of inequalities between boys' and girls' enrollment was more of a societal problem than an educational one, except for the fact that there were less state-funded secondary schools for girls than for boys, a fact that also reflects societal values.

The issues discussed above all led to people's dissatisfaction with the education system. It coincided with a time when many secondary school graduates applied to join the university but could not get placed, due to the fact that there was only one university in Kenya at the time. In 1981, the Presidential Working Party on the Second University was commissioned to look at both the possibilities of setting up a second university in Kenya and of reforming the entire education system. The committee recommended that the 7-4-2-3 system be changed to an 8-4-4 system (eight years in primary, four years in secondary, and four years in university education). Table 17 shows the structure of the 8-4-4 system.

2. THE IMPLEMENTATION OF THE 8-4-4 SYSTEM: PROBLEMS FROM THE ONSET

The 8-4-4 system was launched in January 1985 and emphasized vocational subjects. It was assumed that this new structure would enable school dropouts at all levels to be either self-employed or to get employment in the non-formal sector.

The rationale of the 8-4-4 education system was contained in a booklet provided by the MOE towards the close of 1984. First, the challenge for national development called for a change of the system, and 8-4-4 would respond to this challenge, fully involving the youth in this endeavor. Thus, the system would fill in gaps that the previous education system did not (i.e., responding to the needs of the country and its people).

Second, there was a need for a more relevant curriculum. The 7-4-2-3 curriculum was viewed as not catering to most of the pupils enrolled. There was the need for a practical-oriented curriculum that would offer a wide range of employment opportunities. Third, the 8-4-4 system would ensure equitable distribution of education resources, such that all students had a chance to excel regardless of their origin, creed, or race. Fourth, the system would ensure that students graduating at every level had some scientific and practical knowledge that could be utilized for self-employment, salaried employment or further training (Sifuna and Otiende, 1994; Eshiwani, 1993; MOE, 1984).

These rationales for the change of system were more a political gimmick than a need to change the system per se. Each of the above rationales could have been achieved within the 7-4-2-3 system. The new government (which was under President Moi and which had taken over in 1979), however, felt the need to have an education system that they would identify with, just like the change of system after independence.

The new system was criticized for having been introduced in a hurried manner (proposed in 1981, it started to be implemented in 1985). Many educators and economists expressed the lack of adequate funds for the inception of the system (Getao, 1996; Kamunge, 1988; Bogonko, 1982; D'lima, 1985; Ikiara, 1980). According to Ikiara (1980), the ability of

Table 17. 8-4-4 Education System

Age	Year	Stage	Level	Programs				
27	21	Doctorate	Higher Education	I				
26	20			n	PhD			
25	19			s				
24	18	Post		t	MA			
23	17	Graduate		i				
22	16	4		t		P		
21	15	3		u	BA	O	HD	
20	14	2		t		L	MD	TC
19	13	1		e		Y		
18	12	4	Secondary Education		C	A		
17	11	3			A	R		
16	10	2				T		
15	9	1						
14	8	8	Basic Education	Primary School				
13	7	7						
12	6	6						
11	5	5						
10	4	4						
9	3	3						
8	2	2						
7	1	1						
6		Not Compulsory	Pre-unit Kindergarten	Pre-School				
5								

ART--Artisan
CA--Craft Apprentice
HD--Higher Diploma
MD--Medical Diploma
POLY--Polytechnic
TC--Teacher Certificate

Source: MOE, Science and Technology, Nairobi, 1984.

most areas, especially the poorer parts of the country to successfully implement the program was, to say the least, very doubtful because most of the financial responsibilities were to rest on the parents.

Oluoch (1982, p. 14) sees curriculum development as a complex task that cannot be reduced to any series of neat steps. It should be viewed as an activity that happens over a period of time rather than once and for all. The 8-4-4 reform did not address this issue. The implementation had a very high degree of centralization such that there was a danger of failing to take into account the needs, variations and interests of the citizens. Oluoch (ibid) further suggests that there needed to be pilot testing in a few secondary schools before introducing the system to the entire country, which could have detected problems later faced by the system.

It is evident, therefore, that from the onset important questions were raised about the massive financing needed to undertake the projects and the need for more teachers to ensure success of the system. The doubts and hesitations were quelled when a local newspaper reported the Presidential decree that the system would be implemented and there was to be no further debate about it (*The Standard*, 29 January 1984). Another newspaper carried the same story, "No more Debate on New Schools System" (*Sunday Nation*, 29 January 1984).

At the center of 8-4-4's criticism was the fact that it was introducing a colonial-like system of education that encouraged social stratification.[90] Although technical subjects were introduced in primary schools, pupils were not tested for it and, therefore, by the time they got to secondary school, importance was not attached to these subjects.

Secondary school curriculum included technical and vocational education; however, the vocational training centers around the country did not attract many students.[91] Table 18 shows the enrollment in general education and vocational training schools. Secondary curriculum had many vocational subjects (e.g., crafts, domestic science, woodwork). Many students, however, continued with general education other than technical education.

The hope attached to technical education has to do with the reduction of unemployment among secondary school dropouts, but this is not always the case. Lauglo (1989) observes that:

> School based vocational courses are costly, that it is difficult to recruit teachers and that they have demanding management and logistics requirements (equipment, materials and maintenance). Nonetheless, government policy often favors technical

[90] During the colonial era, technical education was reserved for the Africans, since it was associated with manual work. European children were not taught agriculture and carpentry. Thus, the introduction of the 8-4-4 system was viewed by some parents from poor families as a means of enhancing social class. Students who took vocational subjects could end up in the blue-collar jobs. Elites, on the other hand, would argue that vocational education was appropriate for rural peasant farmers, but not their own children (Sifuna and Otiende, 1994, p. 227).

[91] Vocational training centers were tailored for students who completed primary or secondary education. Although vocational subjects were being offered in primary and secondary schools, only a small number of students pursued them in the vocational training centers.

Table 18. Enrollments in general education and vocational training centers

General Education		Vocational Training	
Center	**Number**	**Center**	**Number**
Primary schools	5,389,000	Youth polytechnics	40,000
Secondary schools	641,000	Technical training institutes	8,500
		Institutions for technology	4,600
Subtotal	6,030,000	National vocational training centers	1,000
		National polytechnics	5,700
Training center for primary school teachers	15,000	National youth service	3,000
Training centers for secondary school teachers	4,500		
University	4,500	Total	62,800
Total	6,072,000		

Source: Republic of Kenya, Central Bureau of Statistics, 1991.

> and vocational courses in spite of acute shortages of funds. This is because vocational education is deemed to serve important policy goals (p. 410).

A policy study by the World Bank in 1988 noted that it was not wise to generalize the appropriateness of any given mode of vocational training. There was scant evidence to suggest that training for a particular occupation would in and of itself predispose an individual to seek employment in that occupation. The study mentioned that there was a need for policy makers, while planning, to take into consideration this fact. The training provided in schools was less useful (i.e., the market demand for it was less strong) than training provided on-the-job or in specialized training centers (World Bank, 1988, pp. 63-64). The above trend is not different in Kenya. The Kenyan informal sector commonly known as the "Jua Kali" has apprentices learning crafts on the job, and most of the time they hardly require any training from the technical institutions.[92]

[92] "Jua Kali" is a Swahili term that means "hot sun." It refers to small shops and workshops producing goods and services, or what is commonly known as the informal sector. The workshops were first begun without any form of shelter, thus everything was done "under the hot sun."

D. The 1990s: Trends and Issues in Secondary Education in Kenya

The foregoing description of education in Kenya has shown that, over the years, education has been associated not only with national development, but also with individual mobility (i.e., good employment and higher wages and salaries). Education reform, therefore, has always been geared towards coming closer to these ideals. The 8-4-4 reform, for example, was tailored to suit unemployment problems in the country by creating opportunities for self-employment through offering more vocational subjects. Although the problem still persists, it is important to look at other issues surrounding the educational sector in Kenya. In the earlier educational reform reports, issues like access, equity, relevance and quality were mentioned (the Ominde Report, the National Committee on Educational Objectives and Policy, the Gachathi Report and the Presidential Working Party on the Second University). How far have some of these goals been met? After the introduction of the 8-4-4 system of education, what are the current trends and issues in education in Kenya?

The historical overview of education in Kenya shows certain, almost definite trends and concerns in education reform during different periods:

- After independence
  - National consciousness
  - Filling in of jobs left vacant by expatriates
  - Relevance/quality expansion and access
- Early 1970s
  - Curbing of unemployment
  - Educational quality enhancement
- 1975 to1985
  - The era of revisions, proposals and new decisions
- Late 1980s
  - More revisions, reviewing curriculum (as in the case of the Kamunge Report of 1988)
  - Educational quality enhancement

In the 1990s, two main issues have been of concern:

- Issues related to access and equity in education
- Issues related to educational quality

1. ISSUES RELATED TO ACCESS AND EQUITY IN EDUCATION

Since independence, there has been a marked expansion in access to schooling. The 1960s, 1970s and 1980s were three decades of improving access in the Kenyan education sector. Knight and Sabot (1990) observe that in 1960 (before independence), the gross primary enrollment ratio was 47%; by 1980, it had grown to 90%. This trend began to change in the 1990s: in 1989, it was 91% and then fell to 82% in 1994.

Great expansion in secondary education has also been seen between 1960 and 1980. While the gross enrollment ratio was only 2% in 1960, it increased to 19% in 1980 and 30% in 1990. This rate, however, dropped in the 1990s from 30% in 1990 to 26% in 1994.

The main reason cited for this decline is the private cost of schooling. Although many children would like to attend school and their parents would like to send them to school, most low- and middle-income groups are not able to do so. Secondary school fees constitute a very high proportion of household income (Deolalikar, 1999).

The fall of the growth rate raises questions related to access and equity in education. The main issues related to this are: 1) regional differences, 2) gender differences, and 3) economic differences.

a. REGIONAL DIFFERENCES

The main source of income in Kenya is agriculture. Some provinces and districts are better off in regards to fertile land and rainfall. Most of Kenyan lands are ASALs. ASALs have more access-related problems than any other parts of the country. Table 19 illustrates this.

The table shows that there is a large gap between primary and secondary enrollment ratios in these districts. For example, although the West Pokot district has a gross primary enrollment ratio of 61.71, its secondary gross enrollment ratio is a mere 8.09. A large percentage, therefore, terminate their schooling after primary school and education reform can only be meaningful if education interventions are targeted to these districts.

b. GENDER DIFFERENCES

Gender differences in education are definitely an issue of concern in Kenya. The number of girls going to school is still low and becomes even lower as one moves up the educational ladder. Several factors are accountable for this. First, cultural preferences for boys' education put girls at a disadvantage. This factor is closely related to a family's income: if there is not enough money to send both to school, girls will often stay at home. Second, in some parts of the country, parents still marry

Table 19. The ten districts with the lowest gross primary and secondary enrollment ratio, Kenya, 1994

District	Primary GER	District	Secondary GER
Garissa	26.08	South Nyanza	1.22
Wajir	27.24	Marsabit	1.29
Mandera	31.07	Lamu	2.87
Marsabit	32.26	Samburu	3.34
Samburu	38.90	Wajir	4.93
Turkana	53.24	Turkana	8.06
Kwale	53.92	West Pokot	8.09
Tana River	55.58	Mandera	9.67
West Pokot	61.71	Narok	10.47
Narok	69.02	Garissa	10.71

Source: WMSII, 1994.

off girls at an early age, depriving them of a chance to go to school. The presence of a younger sibling also reduces the chances of a girl being sent to school.

Even though this is the case, the Welfare Monitoring Survey II (WMSII) shows that in urban areas the gross secondary education enrollment ratio is 50% and it is greater for boys (at 64%) than for girls (at 43%). It is difficult to deduce why this is the case since urban parents are generally known to send both boys and girls to school (see Table 20).

Gender disparities, however, still exist and should be addressed by educational reforms for several reasons. First and foremost, the education of girls reflects itself very much in their families. Mothers' education has been linked to children's education. Second, educated girls are more likely to plan their families, thus reducing a population increase. Third, the fact that every child has a right to education is an equally important factor.

It is worth noting that Kenya has made great strides in gender equality, as Deolalikar (1999, p. 35) observes:

> The ratio of male to female gross secondary enrollment ratios in Kenya is far lower than would be predicted at its level of GNP per capita, given the observed

Table 20. Gross and net rates of enrollment by gender, Kenya, 1994

Group	Gross Rates		Net Rates	
	Primary	Secondary	Primary	Secondary
Rural females	92.56	20.37	67.52	7.91
Urban females	90.20	42.74	75.73	29.09
All females	92.28	23.78	68.47	11.13
Rural males	96.21	23.64	68.70	8.71
Urban males	89.22	63.65	74.07	37.73
All males	95.40	28.21	69.32	12.03
National	93.88	26.01	68.91	11.58

Note: Primary ages are assumed to be 6-13 years and secondary ages are assumed to be 14-17 years.

Source: WMSII, 1994

relationship between per capita GNP and gender disparity in secondary enrollments in Africa. Indeed, Kenya's ratio of male to female gross secondary enrollment ratio (viz., 117) is comparable to countries such as Egypt, that have a per capita GNP that is three times as large as Kenya's.

c. Economic Differences

It is difficult for children to go to school if their parents cannot afford to pay their school fees. Table 21 shows that the poorest 20% of Kenyans, both in rural and urban areas, do not have adequate access to primary education. These disparities are even more glaring in secondary school enrollment, especially in the rural areas.

Economic disparities are closely related to regional disparities in the sense that some rural districts have fewer schools, which are far from each other, and attendance is thus more difficult. This is not the case with urban areas, where there are many schools, which are located closer to one another.

Notably, secondary school enrollment is much higher among richer families, due to the fact that secondary education is very costly compared to primary education. It goes without saying that any subsidies or bursaries in education go a long way in benefiting the richer groups than the poorer ones. Education, then, acts to perpetuate economic disparities rather than bridging them.

Table 21. Gross and net rates of enrollment for various groups, Kenya, 1994

Group	Gross Rates		Net Rates	
	Primary	Secondary	Primary	Secondary
National	93.88	26.01	68.91	11.58
Rural/urban residence				
Rural	94.43	22.05	68.13	8.32
Urban	89.70	51.77	74.89	32.82
Rural per capita expenditure quintiles				
Bottom	86.78	9.55	61.07	3.57
Second	94.02	17.07	68.14	5.45
Third	97.79	23.08	70.45	8.60
Fourth	98.81	28.98	71.58	11.43
Top	96.03	33.92	70.73	13.56
Urban per capita expenditure quintiles				
Bottom	79.38	35.10	67.88	21.32
Second	96.35	36.75	72.80	23.68
Third	91.27	49.60	74.76	31.07
Fourth	95.25	61.23	84.65	34.26
Top	87.64	76.50	78.32	53.07

Note: Primary ages are assumed to be 6-13 years and secondary ages are assumed to be 14-17 years.

Source: WMSII, 1994.

2. ISSUES RELATED TO EDUCATIONAL QUALITY

Education quality is not easy to measure. There are some indicators, however, that are associated with the provision of quality education. In this section, issues such as curriculum, instructional materials, equipment, school management, teacher training, and some outcomes of schooling are discussed.

a. CURRICULUM AND INSTRUCTION MATERIALS

Issues related to the Kenyan curriculum have been discussed earlier on in this paper. However, it is also important to describe the contents of the curriculum. Table 22 shows the themes that the 8-4-4 curriculum intended to address and the subjects addressing them. In the 8-4-4 system, subjects were divided into seven areas at the primary school level: a) English; b) Kiswahili; c) mathematics;

Table 22. The 8-4-4 Secondary Curriculum

Themes/Areas	How curriculum deals with the theme/area (Subjects)	
Communication	English, Swahili, Foreign Languages	
Mathematics	Mathematics	
Science	Physical Sciences, Biological Sciences	
Humanities	Geography, History and Government, Religious Education, Social Education and Ethics.	
Applied Education	Agriculture	
	Industrial Education:	Wood Technology
		Metal Technology
		Power Technology
		Electrical Technology
	Business Education:	Accounts
		Commerce
		Typing and Office
		Practice
	Home Science:	Clothing and textiles
		Foods and Nutrition
	Art	
	Music	
Physical Education	Physical Education (PE)	

d) science and agriculture; e) geography, history, civics and religious education; f) art, craft and music; and g) home science and business education.

At the secondary school level, students study 12 to 13 subjects in forms 1 and 2 and then take a maximum of 8 subjects, seven of them selected as follows:

- three compulsory subjects: English, Kiswahili and mathematics
- two science subjects
- one humanities subject: either geography, history and government, religious education, or social education and ethics
- one subject from: agriculture, home science, art and design, music, three foreign languages, seven industrial disciplines and four business education disciplines

- one subject from: Swahili, mathematics or science and agriculture

Notice that the subjects described above do not force the student to study a technical subject. If, for example, a student chooses to take a cluster of English, Swahili, mathematics, geography, biology, physics, religious education and one foreign language, s/he already has the required 8 subjects. This, then, means that the industrial and business disciplines remain untouched. Due to a lack of adequate physical facilities and instructional materials, many schools have not been offering the vocational and technical subjects. The emphasis of the 8-4-4 on these subjects has not really been there, except in name.

The wide range of subjects also means more books and more instructional materials, which has taken a toll on households. Parents are required to pay for their children's schooling. Under the cost sharing policy, the government does not fully provide for education. Furthermore, when the 8-4-4 system was introduced, it was on the basis that parents and the community would bear some of the cost. Parents, hardly able to afford school fees and building funds, have been even less able to provide textbooks and instructional materials for the children and teachers.[93] In the 1980s, when communities were struggling to raise funds for building and equipping schools for the new 8-4-4 system, there was a policy change that pointed towards households meeting the cost of social services, health, and even the no-salary costs in schools (Republic of Kenya and UNICEF, 1994). The government also withdrew the provision of textbooks and instructional materials to a large number of schools in the country. The above scenario has an effect on the quality of education. An alarmingly high book-pupil ratio (1:17 in primary schools) has been reported (Republic of Kenya and UNICEF, 1994). Most Kenyan parents required to meet these costs are among the poorest in Kenyan society (74% of all Kenyans belong to this category).

b. Outcomes of Schooling Teacher

Prior discussions in this paper indicate that 8-4-4 was launched without adequate preparation of teachers, especially in the technical subjects. This points to the need not only for pre-service training, but also for in-service training opportunities. In fact, pre-service training for primary school teachers had been stopped in Kenya for some time due to saturation.[94] There was concern that teacher training was adhering more to supply than demand. Kenya has one of the lowest teacher-student ratios (an average of 1:30, and lower in secondary schools) in Africa. Given that teacher salaries account for 95% of the total expenditure on education, this translates into a relatively high level of expense for teachers.

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[93] See "Political Aspects of Change" section (p. 98).

[94] Saturation here means that there were already too many teachers in service, so training had to be stopped for some time to regulate this number. It has since been resumed. In the 1980s and early 1990s, all trained teachers were almost assured of teaching jobs. Thus the supply exceeded the demand. Right now, teachers are not assured of jobs once they graduate, since the TSC hardly employs teachers, especially in the arts and humanities category.

Under the new move of decentralizing teacher employment (proposed by MPET, a reform discussed later in this paper), the school boards of governors are being given autonomy to employ teachers. The government also has plans to decentralize teacher supervisory functions to the district level (District Education Boards) and to the school level [Boards of Governors] (Republic of Kenya, n.d., p. 7).[95]

Teaching is a career that needs constant development. This would involve opportunities like seminars, where they would share their experiences with one another. A component of student-centered learning is also of great importance during training, so that teachers learn to give students more learning opportunities in the classroom.

Educational planning and management in Kenya is highly centralized. Although there are several players in the education system, most decisions are either made by the MOE or the TSC. The local and school levels are not well-represented in the planning and management of education. Although bodies such as the District Education Boards (DEBs) have been in existence, their role is not very clear. The major problem here is coordination between different players: MOEs, Finance, Research, Technical Training and Technology, office of the President, and departments within the MOE (e.g., the TSC, which coordinates the staffing of teachers, and the Planning and Development department, which coordinates externally funded projects). There is also no systematic control of the number of schools to be built through community initiatives that, in turn, have to be provided with teachers.

At the school level, there are parents, teachers associations, the board of governors (BOG), headteachers, and teachers who do not make decisions on matters such as the curriculum, teacher deployment, discipline and school budgets. Local government authorities and field officers do not participate in the planning of educational issues, except for acting on the communications from the ministry. Lack of audited accounts fuels misuse and misappropriation of funds which, if utilized well, could benefit children's education.

These problems suggest the need for restructuring the Educational Management and Information System (EMIS). This is the section that is charged with analyzing and putting into use collected data. Schools submit data annually to the MOE, but either they are submitted late or some of the data are inaccurate. When data are published late, many things may have changed by the time they are seen by the public, such that they may not represent the current situation. Data on enrollments and dropout rates, for example, would be very useful in targeting areas that would need intervention. Information from EMIS is not readily accessible to parents, the public, or to the schools that play a part in submitting data.

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[95] Decentralization of teacher management is a concern for the education sector. The MOE, in an attempt to address this issue, formed a task force to review the TSC functions and offer recommendations for decentralization. The recommendations of the task force are contained in the Teacher Management Report (July 2000) and include the division of functions between the TSC, the DEBs and the BOGs.

c. Teacher Training and Educational Management

In view of the above, school outcomes under the discussed conditions may leave a lot to be desired. High dropout rates and grade repetition plague the primary school sector, which in turn reflects upon secondary school education. However, the secondary school sector has very low or virtually no repetition rates. According to WMSII, 65% of per capita consumption expenditure goes to secondary education. The continuation rates from primary to secondary are still very low, as shown in Table 23.

Table 23. Continuation rates from primary to secondary school, by sex, Kenya, 1988-99 to 1992-93

Std. VIII enrollments ('000)				Form I admissions ('000)				Continuation rates (%)			
Year	Boys	Girls	Total	Year	Boys	Girls	Total	Year	Boys	Girls	Total
1988	206.6	161.8	368.4	1989	97.7	69.0	166.7	1988-89	47.3	42.6	45.2
1989	224.1	190.5	414.6	1990	96.1	75.0	171.1	1989-90	42.9	39.4	41.3
1990	210.4	174.1	384.5	1991	95.5	76.1	171.6	1990-91	45.4	43.7	44.6
1991	207.3	173.7	381.0	1992	93.7	65.1	158.8	1991-92	45.2	37.5	41.7
1992	195.0	198.8	393.8	1993	79.7	67.7	147.4	1992-93	40.9	34.0	37.4

Source: Economic Surveys 1991, 1993 and 1994, as reported in MOE (1994).

In addition, as shown in Table 24, performance in secondary school examinations is poor, especially in the sciences.

Table 24. Mean scores on Kenya Certificate of Secondary Education (KCSE) Exams (as a percentage of maximum scores), 1989-95

Subject	Sex	1989	1990	1991	1992	1993	1994	1995
English	Male	28.5	24.2	25.4	32.4	32.8	28.0	27.8
	Female	28.4	24.0	24.9	32.5	32.8	28.3	27.8
Mathematics	Male	13.6	15.5	19.3	24.4	17.0	12.9	15.3
	Female	9.0	10.3	13.2	9.3	11.3	9.0	10.3
Physics	Male	34.6	25.3	19.9	26.1	30.9	29.1	35.7
	Female	29.4	21.1	15.7	20.0	24.9	25.4	31.1
	Male	32.4	28.5	28.6	33.6	32.4	33.5	32.1
	Female	30.0	25.9	25.9	30.5	28.9	29.6	28.3

Source: Kenya National Examinations Council records.

Table 25 shows that the poorest quintiles in Kenya go out of their way to provide secondary education for their children.

Table 25. Average annual household expenditures (in Kshs.) on schooling per pupil, by expenditure category, schooling level, and per capita expenditure quintile, Kenya, 1994

Expenditure category	Per capita expenditure quintile					All quintiles
	Poorest	Second	Third	Fourth	Richest	
Primary						
Tuition fees	52	46	77	194	605	169
Uniforms	166	191	233	259	401	240
Books	121	152	185	253	375	206
Transport	3	4	4	20	106	22
Boarding	19	8	9	42	117	34
Tutoring, exams	25	29	40	53	122	50
Harambee	71	104	122	146	187	122
Total	456	533	669	966	1,912	843
Secondary						
Tuition fees	4,760	5,883	6,137	6,507	7,671	6,534
Uniforms	506	547	781	869	1,023	816
Books	436	513	598	669	1,019	714
Transport	158	112	281	342	470	316
Boarding	756	403	510	898	1,130	800
Tutoring, exams	162	167	238	245	182	206
Harambee	341	229	359	416	343	348
Total	7,200	7,855	8,903	9,947	11,838	9,744
Annual household per capita expenditure						
Per cap. cons. exp.	3,346	7,036	10,634	16,396	41,117	14,897

Source: WMSII, 1994.

It is evident from the foregoing that the Kenyan education system is riddled with myriads of problems, and there is a need to address these problems. The government of Kenya and its people recognize this need, and that is why there are efforts to reform the present system. In the next section, the two latest reform documents, the Master Plan on Education and Training (MPET) and the Report of the

Commission of Inquiry into the Education System of Kenya (the Koech Report) are discussed, establishing how they seek to address the issues mentioned above.

E. Towards Reforming Secondary Education in Kenya in the 1990s

MPET is a plan by the MOE to reform the education system in Kenya. The Koech report has the same purpose. Before critically analyzing the content of both reports, brief summaries of each are provided, laying emphasis on secondary education.

1. SUMMARIES OF THE CONTENTS OF MPET AND THE KOECH REPORTS

a. MPET

MPET reviews the problems currently present in the educational system and notes that the abandonment of the 8-4-4 system would be missing the point. It reiterates the need not only to look at the education system, but also to recognize the fact that problems in the education sector may not be necessarily embedded therein, but could be traced elsewhere in the society. MPET also highlights the role of education as that of going beyond production skills through training to include essential aspects of the mental, attitudinal and social abilities nurtured through education (MPET, 1998, p. 2). The development of education and training (E&T) in the next decade is seen as the path for expanding access, improving persistence and retention, and raising relevance and quality.

As part of the guiding principle, MPET referred to previous documents (i.e., government national development plans, sessional papers), Kenya-based research studies, commission reports, and international declarations and agreements to which Kenya is a signatory, including the 1990 Jomtien EFA declaration and the UN Declaration of the Rights of the Child.

MPET noted five major challenges in the provision of E&T, namely: 1) the mismatch between formal learning in institutions, 2) inadequate national coordination of E&T, 3) pressure on the public budget allocation to the sector, 4) increasing user costs, and 5) the decline in school enrollment rates and quality. To respond to these challenges the report emphasizes three areas:

- Improving curricula by making it more manageable, affordable and related to the needs of the learner;
- Reducing pressure on households by raising the proportion of public financing at the primary and secondary level; and
- Balanced financing through increased efficiency and effectiveness in the allocation and utilization of resources (MPET 1998, p. 22).

Although the foregoing applies to the whole education system, MPET has a separate section addressing issues pertaining to secondary education. In that section, it outlines the reasons why there is a need to reform secondary education. First, as education is regarded as the gateway to high status and well-paying jobs, Kenyan communities are characterized by the social demand for more openings in secondary schools. Second, at 14 years, the primary-school-leaving age, children are still too young to take up any form of employment. Making secondary education accessible to them could even play a role in protecting them from hazardous and exploitative labor. Third, if Kenya is to attain the newly industrialized country status by the year 2020, then it needs to expand secondary education, which is the gateway to further training or employment (MPET, 1998, p. 68).

MPET realizes the complexities of expanding secondary education and proposes an order of priorities where secondary education expansion may flourish. First, there is a need to raise access and quality of primary schools. Second, raising the proportion of primary school leavers selected for secondary education and raising the quality of secondary schools would follow. Third, there is a need to increase opportunities at the post-primary level by streamlining and expanding the youth polytechnics. Fourth, there would be a need to develop provisions at the secondary level as part of basic education (MPET, 1998, p. 68).

Noting that the current education system is riddled with limited access, gender disparities, high dropout rates, and poor academic achievement, MPET is guided by 5 policy goals:

1) Decentralizing the planning, financing and management of secondary education to local government authorities and boards of governors;
2) Increasing of education and training opportunities for adolescents in the 15- to 18-year age group;
3) Raising the proportion of primary school leavers selected for secondary education to 70% by the year 2010, with the aim of achieving a transition rate of 100% by the year 2020;
4) Raising the relevance and quality of education in all secondary schools so as to increase equity with regard to achievement; and
5) Increasing efficiency and effectiveness in resource mobilization, allocation and utilization (p. 70).

Strategies to be adopted so as to achieve these policies include: arresting the decline in the gross enrollment ratio; reducing dropout rates; improving the management infrastructure of schools; ensuring continuity between primary, secondary and tertiary curricula; improving the quality of the Kenya Certificate of Secondary Education (KCSE) examination; developing and implementing criteria for effective teacher professional progression and raising teacher morale and motivation; and making the curriculum manageable in terms of time and cost, among other things.

In addition, MPET offers the time frame between 1997 and 2010 within which it anticipates to achieve each of its objectives.

b. THE KOECH REPORT

The Commission that put together the Koech Report was formed immediately after the completion of MPET. The Koech report, therefore, draws a lot from MPET and acknowledges that MPET highlights many of the problems facing the education system and makes suggestions for the way forward (Republic of Kenya, 1999, p. xxi). These statements of problems and programs of action, the report indicates, were useful in interpreting and processing the terms of reference of the commission.

The commission tasks are similar to those set by MPET. They include: the reviewing of the structure of the 8-4-4 system of education; developing mechanisms for coordinating among all forms of education and training; improving the management and administration of education; planning the appropriate rates and types of expansion in education and training; developing ways and means of improving accessibility, equity, relevance and quality, with special attention to gender sensitivity, the disabled, and disadvantaged groups; and determining the appropriate degree of decentralization in administration and financial control.

The Koech report has a section on access, equity, relevance and quality (pp. 69-95). In that section, it outlines the current situation of education in general and gives recommendations on how to improve on or alleviate problems associated with them (i.e., access, equity, relevance and quality).[96]

On access, the report recommends that: the government should strengthen existing partnerships and create new ones for increased support in education; basic education should be declared compulsory; the government needs to take the steps necessary to plan and implement strategies for increasing access at the secondary school level to accommodate all primary school leavers.

The report recommends that parents and communities should be sensitized to the importance of girls' education and its impact on society.[97] It supports affirmative action programs for increasing girls' access to schooling, including provisions for bursaries, textbooks, and other educational materials. It further recommends that teacher-training programs should also incorporate gender analysis and sensitization.

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[96] See "The 1990s: Trends and Issues in Secondary Education in Kenya" (p. 107).

[97] The Koech report illustrates in depth the importance of girls' education on their lives and that of their children. It notes that if girls are educated, they spend longer time in school and marry later on in life, thus improving the chance of getting fewer children for whom they can provide good nutrition and education. This in turn means improved opportunities for employment and income-earning, and thus increased economic productivity. Therefore, the educated girl becomes an informed citizen, a skillful decision-maker and a self-confident individual (Koech report, Figure 7a, p. 81).

On equity, the report had the following recommendations, among others:

i) Establish and maintain more boarding schools for both girls and boys in the ASALs;

ii) Ensure appropriate distribution of learners and equity in determination of class sizes especially at the secondary school level; and

iii) Eliminate biases in: budgetary allocations; the distribution of equipment, textbooks, bursaries; and other incentives with particular reference to areas that need intervention (girls and ASALs).

On relevance, the report recommends that the curriculum needs to be matched with human resource needs, and this could be effectively done through consultation with the industry to ensure that it keeps abreast with the new developments. Also, in developing the curriculum, it notes, there is need to consult with communities, employers and other stakeholders in education to ensure that specific needs were being addressed.

To enhance quality, the report focuses more on teacher training and motivation. It recommends that: only well-qualified candidates be selected for teacher training; teachers' working environments be improved; teachers' morale be boosted by offering them better terms of service; promotion of teachers be based on proven merit and experience; and in-service programs be organized for teachers so as to improve their pedagogical skills. The report also recommended that the school ranking system be abolished.[98]

The report lists both strengths and weaknesses of the 8-4-4 system. The major strengths noted are:

- The inclusion of practical subjects introduced the children to life skills and laid the foundation for skills development. Practical subjects also oriented the learners towards the dignity of manual work.
- An additional year at the primary level provides the learners with adequate time to mature since the majority end their formal schooling at the primary education level.
- The increase from seven to eight years at the primary level gives particular advantage to the girl child who completes this circle at a minimum age of 14 years. Increased opportunities for students nationwide to compete for university places compared to the narrower preselected cohort of the "A" level structure.

[98] Since the inception of the 8-4-4 system, schools have always been ranked according to their performance in both the Kenya Certificate of Primary Education (KCPE) and KCSE. This encouraged cutthroat competition that made learning more of a burden to children than anything else. Most school administrators, driven by the desire to see their schools appear on the newspapers, put a lot of pressure on students and teachers to excel. This encouraged both rote learning and poor students (those not performing well in internal examinations) being retained in the same grade until they met the standards that would make them eligible to pass the national examinations well. This practice was abolished in 2001.

The weaknesses were highlighted as follows:

- Lack of incorporation of the pre-school circle as part and parcel of the structure;
- The loss of the two years of the higher secondary level that was said to rob the students of the opportunity to mature before entering the universities;
- The fact that many students were said to be unable to cope with the transition to the university life and learning styles;
- The mismatch between the curriculum content and the time allowed within each level; and
- The hurried implementation without any prior consultations and preparation.

To alleviate these problems, the report came up with 558 recommendations.[99] The system of education was labeled Totally Integrated Quality Education and Training (TIQET) to replace the past numerical titles.

The Koech report called for the expansion of compulsory basic education from the current 8 years to 12 years and also for making it compulsory. This meant that secondary education was to be part of basic education. Most important, specifically for secondary education, were the reduction of subjects in the curriculum and the introduction of the pre-university stage. The reduction of subjects would enhance quality at the secondary school level and also make the curriculum manageable for students. The pre-university level would prepare secondary school leavers for university and thus enhance the quality of university entrants. The report proposed an increase in learner's opportunities by making the admission system flexible, especially at the university level.

2. MPET AND THE KOECH REPORTS: WHAT IS THE DIFFERENCE?

A close look at MPET and the Koech reports reveals a lot of similarities between the two. The most intriguing thing is the fact that these two commissions were convened so close in terms of time. As noted earlier, MPET was followed immediately by the Koech report (1998 and 1999, respectively). The Koech report drew a lot of their terms of reference from MPET.

However, there are a few differences that can be noticed between the two reform reports even at a glance. The first major one is the fact that the Koech report recommended an overhaul of the structure, while MPET proposed only non-structural/organizational reforms of the present structure. Interestingly, the Koech report contends that the solutions required to revamp the education system

[99] The Koech report is actually very detailed in terms of describing the current nature of education in Kenya and offering recommendations on how the education system could be improved. An interview with a key educationist indicates that MPET, though it came earlier, could be considered as a subset of the Koech report. This, he added on a light note, could also be the reason why it was quickly rejected: it was voluminous and no one in either the Ministry or the government was ready to read it!

went beyond mere structure (p. xxxv). Why, then, did they have to propose the change of structure? The report states that the apparent rejection of the structure was indeed based on lack of ownership due to lack of proper consultation, especially given the perceived politicization of the structure. Thus, the weaknesses of the economy, pressing social disintegration of issues such as discipline, and corruption were wrongfully identified with the structure (p. 313).

The commission, therefore, recommended a structure that would gain support from the people, a dimension necessary for the successful implementation of any reform. The Koech report was put together after collecting and collating views from members of the public and specialized groups, such as NGOs, religious organizations and politicians. There are examples throughout the report of what people said in the field concerning the education system in Kenya. For example, to illustrate the need for addressing regional disparities and relevance of the curriculum, a fisherman was reported as saying "I took my son to school and he came back as neither an employable person, nor a fisherman."

Together with the change in the structure was also the change in the name that envisioned it. TIQET, which sounded like "ticket," was a structure of education that would be a ticket to a better life. The fact that it pointed towards increasing access meant that many more people would have the ticket through education to employment and other opportunities in life. With time there would be no examination between primary and secondary school and, hopefully, secondary enrollment would go higher.

To foster national unity, the Koech report argued against the quota system that restricted students to joining only secondary schools in their own districts. The current practice was that teachers and education field administrators were being posted to their home districts or provinces. The commission recommended that selection of students in schools as well as deployment of educational personnel be made with due consideration to national integration.

It is worth noting that the two reports deal with the issues of regional disparities, socio-economic inequalities, and gender disparity in a very similar way. They both realize the need to address these issues urgently.

Although both reforms advocated for the reduction of subjects in secondary schools from 8 to 7, MPET favored the existing centrally-mandated curriculum while the Koech report advanced a case for incorporating regional differences in the curriculum.

3. REFORM DEBATES IN THE 1990S

While MPET was not publicly discussed by many people, the Koech report fuelled a lot of debates in the country. This could be explained by the fact that the formation of the commission was a public affair, while MPET was developed within the MOE. Deolalikar (1999, p. 100) contends that school autonomy holds the key to the eventual sustainability and success of the planned reforms. He adds that the experience of other countries (such as Nicaragua, El Salvador, and Colombia) suggests that school autonomy reform can make public schools more accountable to parents and thereby improve the quality of schooling.

The Koech report was not implemented; therefore, the debates were mainly to seek answers as to why this was the case, as well as urging that it be implemented.

Since teachers, parents, and curriculum developers had all agreed that the 8-4-4 subjects were burdensome to children, the report was widely accepted. Local newspapers carried editorials on the reform, calling for its implementation. It became apparent, however, that the government was keen on maintaining the 8-4-4-system. On Monday, June 26, 2000, the Daily Nation carried a report entitled "Dark Clouds Hang over Koech Report." The government invoked financial constraints and therefore, was not in a hurry to implement the recommendations of the reform. However, an analysis of the report showed that, if implemented, the Koech report would result to cutting expenditures by 21% in four years.

The Koech report radically departed from the 8-4-4 system by increasing the emphasis on quality and flexibility. The MOE, however, was adamant on wanting to maintain the 8-4-4 system and only dealing with the most obvious problem: the number of subjects. This was, however, viewed as a short-lived remedy. By implementing the recommendations, therefore, the government would be massaging rather than diagnosing and reforming an education system that is on the verge of collapse (Aduda, 2000, p. 17).

Following President Moi's dismissal of the Koech report as "unrealistic and unworkable," a workshop organized by the Institute of Policy Analysis and Research (IPAR) suggested the need for the implementation of the report. It was evident, said workshop panelists, that the report was dismissed without having been studied thoroughly (Aduda, 2000, p. 3).

Despite this plea, later in September, the Minister for Education made it very clear that the subjects were to be reduced although the system would remain (Odhiambo, 2000, p. 1). This was a ripe time for the Minister to mention the existence of the Koech report so that the public could know that the ministry was also working hard to reform the education system. Unfortunately, it did not happen.

Some analysts, however, state that although the Koech report proposed a numerically different system from the 8-4-4 system, it is basically the same and does not promise how it would eradicate the unemployment problem in Kenya.

"The way forward would be to review the current 8-4-4-system with a view to reducing some courses or the workload which makes it difficult to finish the syllabus in time, and hence makes the students exhausted. It should also be relevant to the times. Some ideas in the Koech report can come in handy" (*Kenya Times*, September 7th, 2000).

Another argument in line with this posits that the most important thing in an education system is the content of the teaching program. The curriculum can be taught and learned effectively whether the "box" in which it is packaged in is 8-4-4, 7-4-2-3 or 1-7-4-1-3 (*The Daily Nation*, July 26, 2000).

F. Concluding Remarks

Since independence, Kenya has had several commissions that have proposed ways of reforming the educational system. Most of the reports are similar in content. This underlines to the fact that a lot has been said about the shortcomings of the education system and that a variety of recommendations have been made but little has been done. Structural changes have been carried out twice and proposed again by the Koech report. The main question is whether the country needs structural reform of the education system. Many aspects of the secondary education sector have been discussed: curriculum content, access and equity, and quality and relevance all need to be addressed through reforms much more urgently than the structure.

Although there are financial constraints on the provision of education, appointing commissions, writing reports and not implementing them is in itself an expense. Members of different committees, consultants and commissioners are paid a lot of money to review the sector and make recommendations. These funds could be directed to an area that needs immediate attention.

The MOE ought to make efforts to make changes in the sector known to the public. Apart from the reduction in the number of subjects that was publicized after the rejection of the Koech report, MPET is shrouded in mystery. This makes the public suspicious. MPET and the Koech report have somewhat similar contents and having them almost at the same time was rather paradoxical. The Koech report, therefore, may have played the role of appeasing the masses who had been calling for the reforms in the system. In reality, it may not have been deemed necessary, and this explains why it was not implemented. It was just another "white elephant."

The importance of reforming secondary education in Kenya cannot be underscored. It is the transition stage from primary school to tertiary and higher institutions of learning. Addressing issues

that need reform in secondary schools would give meaning to the revitalization of both primary and higher institutions of learning. Improving access at this level would give meaning to attending primary school due to the surety of continuation. Improving quality, relevance and equity in secondary education would mean well-prepared students for the labor market or for tertiary and higher institutions of learning

With these problems still lingering in the education system, the quest for quality and relevance in secondary education remains a pipeline dream. The challenge, therefore, is to address educational issues and not making endless recommendations. If implemented, both the MPET and the Koech report could go a long way in revitalizing the education system in Kenya.

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VI. Reforming the Curriculum in Romanian Secondary Education

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Abstract

This paper discusses an important aspect of the new developments in the Romanian secondary education: the curriculum reform. Generally, the literature dealing with this topic has been marked by an uncritical acceptance of the goals of the reform and an endorsement of the presumed implications of these for educational practice. While an increasing number of articles and books on educational reform in Eastern Europe are being published, many of them typically focus on the political and structural aspects of changes in the educational system. This paper endeavors to bring the analysis down to the micro-level of social and psychological responses of those participants involved in the curriculum reform. This study aims to analyze changes in light of historically-developed traditions of the educational system, the influence of the previous regime, changes in the role and conditions of the teaching profession, and the emergence of various forms of resistance and participation. This paper argues that the reform of the curriculum, despite its significant steps in the right direction, has not been successful yet in changing the role of the teacher or the status of the teaching profession. Also, it has not improved conditions of access and equity for students. On the contrary, the curriculum reform has reinforced the importance of private tutoring as a powerful and efficient parallel system of education. In addition, the reform, perceived as a crisis by many students, parents and teachers, is a takeoff point for talking about access, equity and quality in secondary education.

A. The Romanian Educational System: Context and Rationales for the Secondary Education Reform

At a time when much emphasis is placed paradoxically on both the preservation of local traditions and on a pan-European uniformization of institutions, education in Eastern Europe offers an eloquent example of how the evolution of education is steered at the same time by different historical backgrounds and by regional politics. After the collapse of "communism," Eastern European countries began a period of profound political and social changes. These transformations motivated the initiation of major structural changes in education as well.

[100] We would like to express our gratitude to Romanian consultants: Ştefan Popenici (Researcher, Institute for Educational Sciences; Advisor to the Minister of Education) and Mihaela Nistor (Teacher, Alexandru Vlahuţă School, Bucharest). They provided assistance and valuable feedback during the development of this paper. Thanks are due also to Professor Mark Ginsburg (University of Pittsburgh) who, through his precious comments, his encouragement and his constant advice, helped prepare the final text. We are also grateful to our colleagues and friends: Nagwa Megahed, Leonora Kivuva, Jorge Gorostiaga, and MinHo Yeom, for much valuable discussion and for their critical reading of this paper.

Under communism, people had free access to what they perceived to be – and, to a great extent, was indeed – high quality education throughout the region. For instance, as a World Bank report states: "at the start of the transition in 1989, adult literacy was generally universal. Participation and completion rates for children and youth of both genders were high at all levels of education. Given such a legacy, the education sectors of the transition economies seem to have few problems compared to education systems in other regions of the world" (World Bank, 2000a). However, the World Bank specialists argue, "the rules of the game that resulted in good educational outcomes under Communism are changing. There are fault lines beneath the surface of education systems […] that unless repaired, will ultimately undermine these systems." The new education systems need to adapt to the new principles of democracy, humanism and liberalism and to the demands of a "learning economy" (World Bank, 2000b); school is required to have an important role in preparing young people for participation in an open society.

THE COMPLEXITY OF THE CHANGE

The ambitious, comprehensive education reform that Romania is undertaking covers a vast span: curriculum, teacher education, administration and management, examinations, etc. A few turning points in the reform process can be mentioned, beginning with the White Book of the Education Reform (1992), which is the first comprehensive document to analyze and establish the new directions of the reform process. The World Bank Education Reform Project 1 began in 1994.[101] In 1995, Romania joined the EU Phare-Vocational Education Training (VET) program.[102]

Immediately after the 1989 Revolution, political and ideological references were excluded from course content and textbooks, new legislation permitted the establishment of private and religious schools, and some timid attempts of decentralizing the system started. The principal tasks of the reform process, presented by Andrei Marga in two articles, "Reform of Education Now" (1997) and "A Look

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[101] The Education Reform Project (1994-2001) is aimed at supporting the Government's strategy to reform the pre-university (basic and secondary) education. The specific objectives are to: update and improve the quality of basic and secondary education by improving curriculum, teacher training, assessment, examinations, and textbook quality; and develop and introduce measures that will increase efficiency in management of public resources for education. The project comprises two main components: a) raising the quality of basic and secondary education; and b) improving education financing and management. The project involves financing textbooks, supplementary materials, equipment, computer hardware and software, technical assistance, external and local training, preparation of studies, and non-salary operating costs. For available project documents, contract information, and staff appraisal reports, visit the World Bank web site (www.worldbank.org).

[102] The Phare Program has been an important means for the EU's financial and technical cooperation with the countries of Central and Eastern Europe. The Financing Proposal of the Phare VET Program, which was signed in March 1995, attached 25 MECU to a 3-year program (1995- 1997). The main objective was to support the Government of Romania in its policy reforms of the VET system, in particular secondary VET, to improve relevance to the developing market economy and to assist economic restructuring. Four immediate objectives within the reform of secondary VET were to: a) adjust the nature of VET to increase initiative and flexibility; b) broaden the background of graduates in order to respond to the changed profile of labor demand; c) seek development of social partnership with employers in defining and implementing VET; and d) seek efficiency of provision and develop student choice and delay specialization. More information can be found at: http://europa.eu.int/comm/ enlargement/pas/phare/index.htm

into the Future of Romanian Education" (1998),[103] were the following: curriculum reform; the reform of education in favor of problem solving and the reform of the role of research in universities; initiation of renewed interaction between education and its economic and social environment; improvement of infrastructure and connection to the electronic information highway; the reform of school and university management; and participation in advanced forms of international co-operation.

Some of the most important aspects of the educational reform process, with an emphasis on the curriculum reform, will be briefly discussed in the subsequent sections. The following topics will be considered there: the reform of the evaluation system, teacher education, financing pre-university education, and the curriculum reform.

1. THE REFORM OF THE EVALUATION SYSTEM

An important accomplishment of the education reform has been the establishment of the National Assessment and Examinations Service (NAES) in May 1998, which is charged with preparing national examinations and assessments. The NAES develops exams for Capacitate (at the end of grade 8) and Bacalaureat (at the end of grade 12) and distributes them to inspectorates on the day of the exam. An OECD (Organisation for Economic Co-operation and Development) report talks about the emergence of a new "culture" of the evaluation in Romania (OECD, 2000), evident in the processes of establishing criteria for evaluation and defining the standard indicators for student performance.

In fact, there are many difficulties and controversies related to the establishment of the NAES, starting with its "institutional ambiguity:" NAES is subordinate to both the MOE and to the Institute of Educational Sciences (IES). The OECD report argues that, in the long run, NAES should become an independent institution capable of assuming the responsibility for the critical evaluation of the performance of the education system (OECD, 2000).

A further controversy is related to the inability of the NAES to formulate clear criteria for evaluation and to implement means for evaluation and training students so that teachers may be able to avail of the appropriate results of these processes from the very beginning of the teaching process.[104] Also, despite its significant steps in the direction of increasing the transparency and quality of the system, these examinations have gained some criticism, since not all the subjects attained the same level of complexity. (OECD, 2000). On the other hand, delivering the Capacitate and Bacalaureat exams on a systematic basis has somehow slowed the assessment process.[105] Criticism has also been centered on

[103] Andrei Marga was Minister of Education between 1997 and 2000.

[104] Interview with Stefan Popenici, 2001.

[105] "So far, the NAES has undertaken a national assessment of 4th graders in math and mother tongue in 1998. The information that the NAES is providing, through national assessments, will definitely have an important role in enabling much more policy analysis and improving the quality of education." (World Bank, 2000a)

the expenses that such an institution would imply: about 20 permanent employed specialized staff, plus 20 to 25 auxiliary staff. In addition, it is suggested that "cost effective alternatives to a national examination system might be considered, where only a limited set of subjects have exams developed nationwide, while the rest have school-developed exams" (World Bank, 2000b).

2. TEACHER EDUCATION

a. THE REFORM OF INITIAL TEACHER TRAINING

The curriculum reform, expecting a different type of outcome from students, indicates a need to reform the teacher training. Romanian teachers are themselves highly educated but they have to be now more than transmitters of information.[106] They need to apply in their classes a more student-centered pedagogy and to take into account the students' learning and identity development processes.

Starting with the 1999-2000 academic year, the reform of the initial training for a teaching career involves training this category of specialists in tertiary education institutions exclusively. The psycho-pedagogical and methodological training of the future specialists is now supposed to be carried out in the Department for Teacher Training of the university according to the following curriculum: a) Compulsory curriculum (common core) consisting of the following subjects: Psychology of Education, Pedagogy, Subject Teaching Methodology, and Teaching Practice; and b) Optional curriculum, including at least two subjects chosen by the student out of the following package: School and Vocational guidance, School Management, Education Sociology, Educational Policies, Intercultural Education, etc. The faculties and university colleges apply the system of transferable academic credits to the curriculum managed by the Department for Teacher Training as well, which enables students to acquire a second teaching specialization along with their initial specialization. The teaching practice is organized over a period of two semesters in a pilot school and in schools appointed by the school inspectorates in cooperation with the teacher-training departments in universities. Korka (2000) argues that for the first time, after decades of completely separate activities, the initial training of the new generations of teachers is the common responsibility of the suppliers (the universities) and of the beneficiaries (the county school inspectorates). However, it is far from clear to what extent this approach has been able to reach its objectives. Once again, what is on paper does not match the reality. World Bank evaluations reveal the fact that teacher training is one of the least advanced aspects of the educational reform. Furthermore, programs designed by the World Bank in order to reform teacher training have not been tailored to the real needs of the Romanian educational system.[107] Also, training future teachers in tertiary education institutions seems to be just a meaningless "simulation of activity" where automatic promotion is the common practice: taking

[106] Secondary education teachers need to have a university degree and to pass a competitive recruitment exam.

[107] Interview with Stefan Popenici, Consultant of the Romanian MOE, 2001

advantage of the autonomy of the university, the psychology departments prove scarcely interested in reforming their curricula in keeping with secondary education's new curricula and the changes that have occurred in Romanian society. [108]

b. THE REFORM OF FURTHER (IN-SERVICE) TEACHER TRAINING

The reform of further teacher training started in April 1998 and aimed at training in-service teachers to understand, adopt and apply the new elements in the National Curriculum and to adapt the teaching technology and evaluation to the new requirements. A National Center for Teacher Training (CNFPDIP) was set up on June 29, 2000,[109] and its activities benefit from consultancy and technical assistance provided by the Educational Center of the USA in Bucharest. The Teacher Centers in every county have been equipped with computers, printers, and overhead projectors, and the Directors of the Centers have received training. They cooperate with the school inspectorates, the regional centers, the local universities, non-governmental organizations, and independent experts to cover the need for continuous training by organizing "cascade training programs" that disseminate new knowledge within the entire county.[110] Nevertheless, the model of training delivery seems to be a very centralized one by expecting local trainers to replicate such training nationwide. In addition, this strategy has been criticized for not providing teachers with the ongoing support required to engage in the type of change expected and not meeting the demands of the new curriculum framework (World Bank, 2000a).

3. FINANCING PRE-UNIVERSITY EDUCATION

The State Budget made available funds for financing public education at the pre-university level. The MOE allocates the money approved by the Budgetary Act in accordance with criteria such as: the number of staff and the teaching staff's average salary; the number of textbooks and teaching aids computed per number of students; the number of students entitled to receive scholarships and other social transfers; and an estimation of the equipment and furniture needs based on the average period of use. The MOE distributes the money to the County School Inspectorates (local education authorities), which transfer it to the Budgetary Centers.[111] Since 1995, the Local Public Bodies'

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[108] Personal correspondence with Stefan Popenici, 2001.

[109] The CNFPDIP is subordinated to the MOE.

[110] Sixty national trainers and 1,300 local trainers have been trained in the core areas of assessment and examinations, active learning, differentiating instruction, economic education, and conflict resolution and pluralism (World Bank, 2000a).

[111] A Budgetary Center is organized as a unit covering up to 15 school units in terms of financial and accounting procedures. A new law passed (which came into effect beginning of July 2001) regarding the shortcut of the complicated way of the money from government to the beneficiary. The new mechanism of salary payment has already provoked the reaction of the teachers, who are worried that they would not receive their salary in due time. There are also discussions about transferring greater responsibility in education to local government. The central government still allocates the resources, without much opportunity for efficiency or innovation. A law was passed according to which pre-tertiary education would be financed on a per student basis.

Budgets have financed the maintenance of the school infrastructure, and recently, the local governments have been given property rights of the school buildings. This measure is expected to increase their interest in effectively undertaking school maintenance.

An important source of funding for secondary education comes from external aid. According to a study made by the IES, for the past few years, Romanian education has been loaded with more than the equivalent of $500 million. The greatest share of this amount was contributed by the World Bank (Education Reform Project – $50 million; School Rehabilitation Project – $70 million; Reform of Higher Education and Research Project – $50 million) and by the EU Phare, which amounted to 25 million ECU.[112] More to the point, Romania is one of the top three World Bank lenders in Europe and Central Asia, as shown in Table 26.[113]

Table 26. World Bank Education Lending by Region by Country

World Bank Regions	Top Three Countries
Sub-Saharan Africa	Uganda, Mozambique, Nigeria
East Asia and Pacific	Indonesia, China, Malaysia
Europe and Central Asia	Turkey, Hungary, Romania
Latin America and Caribbean	Peru, Mexico, Brazil
Middle East and North Africa	Tunisia, Egypt (Arab Republic), Morocco
South Asia	India, Bangladesh, Pakistan

Source: Serrant & McClure, 2000; World Bank, 1999.

The OECD report argues that the assistance (consisting mainly of "projects") granted to Romania from the beginning of the 1990s should be replaced by new types of assistance, better adapted to the priorities of the Romanian education system.

[112] Beginning with 1994, the main external source for jointly financing the pre-university level is represented by the World Bank Project. In 1994, Romania sat up the framework for joining the Phare-VET under an EU program (ISE, 1998).

[113] Beginning with 1994, the main external source for jointly financing the pre-university level is represented by the World Bank Project. In 1994, Romania sat up the framework for joining the Phare-VET under an EU program (ISE, 1998).

4. THE CURRICULUM REFORM

One could wonder at the uniformity of reform undertakings in Eastern Europe. Even though Central and Eastern European countries do not form a homogenous block – historically, culturally, and geo-politically, moving toward a greater local input is a common point of the educational reform in all of Eastern Europe.[114] In Romania, a challenging stage of the curriculum reform began in 1998. Starting in the 1998-1999 school year, a new curriculum has been introduced in lower secondary education containing seven curricular domains, which are divided into: core curriculum (taking up 75%) and the "curriculum at the school's option" (or the "optional curriculum," which can be decided by the school itself, and is taking up 25%). The seven curricular domains are: language and communication, mathematics and natural sciences, human being and society, art, sports, technology, and career counseling and guidance. During the 1999-2000 school year, the new curriculum was implemented in all grades of compulsory education and in the first year of study in upper-secondary education (grade IX). The new national curriculum enriches the list of subjects, develops local curricula in Romania, offers optional subjects in any grade, and involves the community in school activities.

The main goal in developing new syllabi and alternative textbooks is the creation of a "new curriculum culture"(Marga, 2000), defined by the following dimensions:

- Decentralizing and enhancing flexibility and reducing the formal requirements of the curriculum and syllabi;

- Adapting the curriculum to individual learning and training needs, in accordance with the changes taking place in society;

- Orienting learning towards skills development, using interactive methods, and stimulating creative and critical thinking, as well as the pupils "independent activity, inquisitive spirit, and the individual problem-solving ability;" and

- Using information in new contexts related to concrete situations in the areas of private and social life (Marga, 2000).

[114] The process is sometimes causing rather acrimonious debates centered on the changing contents of curricula. For instance, political debates characterized the early 1990s (especially about history curricula, and a proposed new National Core Curriculum) in Hungary and in Romania. In Hungary, the debates now focus on the implementation and local adaptation of the New National Core Curriculum, adopted in 1995. "Within the framework of the National Core Curriculum, schools are free to decide which subjects, and how many lessons they will offer in both compulsory and optional subjects; the forms and procedures of pupil evaluation; and the special provisions for ethnic and national minorities." (Nagy, 2000).

Syllabi are designed as framework plans; they indicate the minimum and maximum number of hours for every type of school and grade. The new framework curriculum, Romanian officials argued, would contribute to the existence of a "reasonable syllabus" by means of which "a better productivity of learning can be obtained: learning better and more efficiently, in a shorter amount of time and with less stress."

Schools can work on the basis of the weekly minimal schedule as syllabi are conceived in relation with the minimum number of classes per subject (the common curriculum). The common curriculum (including the compulsory subjects) allows the syllabus to be reduced to essentials. On the other hand, schools have the option to work on the basis of the maximal syllabus, offering the students a wider range of options for individual study as compared to the minimal syllabus.

The new framework of the curriculum is conceived around a few principles. Among them, we find helpful for our analysis: a) the principle of making the Romanian pre-university education compatible with the European quality standards; and b) the principle of equal opportunities.

"With a view to Romania's pre-accession and integration into the EU, primary and secondary education must become compatible with the European quality standards, especially as far as the curriculum and the assessment are concerned. Training the pupils through the new national curriculum must be compatible with the requirements of living in a democratic society and with the foreseeable needs of the labor market in an ever more interdependent Europe and world.

The principle of equal opportunities refers to ensuring that every pupil has the right to school education within the system. The implementation of this principle imposes that general education should be compulsory and that all the pupils are taught the same compulsory subjects (common curriculum)" (Korka, 2000).[115]

5. THE TEXTBOOK POLICY

Teachers and students now have the possibility of choosing among alternative textbooks. Under the reform program co-financed by the World Bank and the Romanian Government, a real effort was made to end the state textbook publishing house monopoly and to stimulate the emergence of a private publishing sector. The project component is financing the replacement of the textbooks in compulsory education. Publishers engage in competitions to provide up to three titles per subject per grade. A Textbook Approval Board, with panels of experts according to subject, supervises these competitions and assesses the proposals in relation to specific criteria. Publishers who are selected may apply for training in publication management and were initially eligible for development grants of

[115] Compulsory education begins at age 7 and includes grades 1-8 (Law on Education, 1995).

up to US$10,000 per textbook in order to finance the initial cost of a sufficient number of textbooks. Consequently, Romania has developed a functional private textbook publishing industry. Local inspectorates organize exhibitions where the books are presented; teachers can choose among the three possible textbooks and order the book from the publisher through the *judet* Inspectorate. Alternative textbooks also have been introduced for high schools. In this case, the number of textbooks is unlimited.[116]

B. Causes and Objectives of the Curriculum Reform

In his report on the Romanian reform of the education system, Marga (2000) states that our education "bears the traces of Eighteenth Century positivism, of Nineteenth Century romanticism, of Eastern European socialism, and of the unorganized efforts of changing it after 1989." He assumes that one of the characteristics which keep it from being competitive is that "it adheres to an obsolete conception of development as expansion – increased volume of information, more classes, more examinations, etc. – even though the encyclopedic ideal has been superseded. It is a system that is overly inured to the pressures of competition – grades, job offers and examinations, even though the feasibility of partnership is now essential." In the same report, Minister of Education Marga admits that the steps envisaged "were in agreement with the EU concept of educational reform for Eastern and Central Europe." There must be a "curricular compatibility" among European countries. Therefore, schools have to "reduce the burden of the curriculum": their programs will be "lightened according to a comparative analysis of contemporary international experience" and the "school curricula will reflect European standards."[117]

REDUCING THE "BURDEN OF THE CURRICULUM"?

There are still wide variations between Member States of the EU in the organization of school time, as illustrated in Table 27 for lower and general upper secondary education respectively. In 1997-1998, at the lower secondary education level, Ireland and Netherlands had the highest annual minimum load – over 1000 hours. In Italy, some pupils have classes for more than 12,000 hours per year (this maximum is calculated taking into account the hours of optional language lessons). On the other hand, Young Danes and Germans receive an annual minimum of about 800 hours of teaching. In the European Free Trade Association/European Economic Area (EFTA/EEA) countries, the lowest

[116] The introduction of alternative textbooks started in 1995. Changes in curricula can be highlighted by the fast development of the textbook market. Textbook publishing has become a big business since the end of the state monopoly. This is common for the entire Eastern Europe. For instance, by 1995, general schools in Hungary could choose from 6 to 12 textbooks available for each subject. The increase in textbook options for foreign language teaching is even more remarkable. In Hungary, English teachers could choose from 214 textbooks in 1994-1995.

[117] Interestingly enough, one can easily notice that this "harmonization" of the educational system, based on the principle of an assumed "partnership" with other countries, is taking place at a time of an increasing global competition.

Table 27. Minimum annual hours of taught time in secondary education, 1997-1998

European Union	B	DK	G	EL	E	F	IR	I	L	NL	A	P
Lower Secondary-General	849	780	790	919	866	842	1002	933	900	1067	870	875
Upper Secondary-General	849	900	846	788	930	957	1002	767	900	1000	960	613
Pre-accession countries	**BG**	**CZ**	**EE**	**LV**	**LT**	**HU**	**PL**	**RO**	**SI**	**SK**	**CY**	
Lower Secondary-General	765	782	788	723	878	694	773	878	783	725	872	
Upper Secondary-General	837	869	919	788	936	833	800	850	912	837	845	

Source: Eurydice, Key data on education in Europe 1999/2000. A= Austria; DK=Denmark; E=Spain; EL=Greece; F-Finland; Fr=France; G=Germany; I=Italy; IR=Ireland; L=Luxemburg; NL=Netherlands; P=Portugal; Sc=Scotland; BG=Bulgaria; CZ=Czech Republic; EE=Estonia; LV=Latvia; LT=Lithuania; HU=Hungary; PL=Poland; RO=Romania; SI=Slovenia; SK=Slovakia; CY=Cyprus.

minimum annual lesson time is 747 hours in Iceland, but the municipal authorities there are free to increase this time. In Liechtenstein, the minimum is over 1000 hours a year. In the Eastern European countries, the annual hours of lesson time are fairy close. The least hours are found in Hungary and Poland, where there are less than 700 hours a year. In Eastern Europe, pupils' annual lesson load was greater at the upper-secondary level than at the lower-secondary level except in Romania.

A quick look at the number of hours before the reform started shows that compared to EU countries, the total number of hours taught in Romanian lower secondary education schools tended to be somewhere in the middle (with 878 hours), compared to a minimum of 780 hours in Denmark (DK) and a maximum of 1067 hours in the Netherlands (NL). As for 1998-1999, after the introduction of the new curriculum, regarding the minimum and maximum number of hours taught in lower secondary education, Romania tends to be at the lower end of the range (see Table 28), with 170 school days and 50-minute lessons. It can be concluded that Romanian officials were perhaps a little too eager in cutting the number of hours taught in secondary education.[118]

[118] Subjects like history, geography, and biology are the most affected by such cuts. "History, biology, and in general, everything related to serious and intense work, seem to be devalued by our officials. Teachers in these subjects are constrained to teach in two or more schools; many of them try to find additional sources of revenue in the private sector" (interview with Mihaela Nistor, teacher).

Table 28. Comparison of curriculum in Romania and selected EU Countries (instruction time)

	Age 7	Age 10	Age 13	Age 16
School Days				
Romania	170	170	170	170
EU	175 (P)-214 (A)	175 (P)-214 (A)	175(P)-216 (L)	160 (P)-216 (L)
Hours Taught				
Romania	510-567	595-652	765-822	878-935
EU	542 (F)-950(Sc)	656(F)-950 (Sc)	780(DK)-1067(N)	767(I)-1027(E)
Daily Minutes				
Romania	180-200	210-230	270-290	310-330
EU	171-282	207-282	250-380	240-360

Romania: 170 school days, 50-minute lessons; A= Austria; DK=Denmark; E=Spain; EL=Greece; F= Finland; Fr=France; G=Germany; I=Italy; IR=Ireland; L=Luxemburg; N=Netherlands; P=Portugal; Sc=Scotland.

Source: European Commission, and MOE, 1999.

For 1999-2000, after the introduction of the new curriculum, the number of minimum taught hours in lower secondary education is 736 hours and the maximum is 821 hours (see Table 29).

Table 29. Minimum and maximum taught hours in Romanian lower secondary education, 1999-2000

	Number of hours/weekly	Number of days/weekly	Average number of hours/daily	Number days/per year	Number of hours/per year
Minimum	26*50'=1300'	5	260'	170	44 200'=736h
Maximum	29*50'=1450'	5	260'	170	49 300'=821h

Discussions with Romanian teachers revealed that, although it might seem that the curriculum has been "de-congested," the optional classes become very frequently just a way of preserving the old structure of the curriculum.[119] The freedom given to schools to decide on a portion of the curriculum (representing 20%-25%) implies that the schools have to design their own project depending on the human and material resources of the school, on the pupils' interests and motivation and of the specific ties, which exist between school and the local community. On the basis of these principles it is

[119] Interview with Mihaela Nistor, 2001.

possible to differentiate the individual courses of study by taking into account the students' interests and motivation. In reality, an OECD report argues, features such as reliance on the central curricular model, reluctance to assume individual responsibility (as well as a focus on the encyclopedic aspect of teaching without linking it to the acquisition of skills, aptitudes, and practice) and a preference for traditional authoritarian teacher-student relations are to be found in all Eastern European educational systems and hinder the implementation of the curriculum reform (OECD, 1996). Although lingering misconceptions about Eastern European education seem to shape the OECD report, it becomes evident that the curriculum reform has not produced significant curricular innovations in any Eastern European country. In the Czech Republic, for instance, Kalous considers that the methods of teaching have not significantly changed and estimates that only 10% of the schools have been able to produce notable curricular innovations (Jaroslav Kalous, in Polyzoi, E; Černá Marie, 2001). As for the Romanian reform, it is still difficult and too early to assess the extent to which curricular autonomy at the school level has influenced the quality of teaching in secondary education schools.

C. The Tutoring System: Cause and Effect of the Curriculum Reform

One of the unspoken reasons of the curriculum reform has been the attempt to break up a deeply rooted Romanian tradition (both under the Communist rule and before 1945): the system of private tutoring. Under the conditions of *numerus clausus* for admission to the upper secondary level or to university studies, tutoring worked very well. Many parents used to hire private tutors to help prepare their children for exam-taking. Sometimes the tutors were the high school teachers that the student would have as his/her examiners and tutoring meant sure access to the next education level.

It is quite interesting to see how the academic milieu and ordinary people are answering to the policy of "democratizating" the curriculum. The "commodification" and "massification" of culture (education included) are believed to enormously diminish the quality of products and thus result in non-culture. Therefore, a resistance to that is emerging, visible not only in the academic milieu that is reinforcing traditionalism and conservatism, but also in the perpetuation of a popular elitist and meritocratic belief about the role of education. This is just one of the reasons behind private tutoring, which today acts like a parallel system of education. For many students, the process of tutoring starts at the ages of 5 to 6 and continues until their high school graduation. It is an "illegal" system (the few teachers who declare to the authorities that they are tutoring students need to pay considerably high taxes) but an efficient one, compensating what the school no longer intends to offer: a solid, comprehensive culture.[120] At first sight, the genuine institution of tutoring can seem useless since the level of complexity of matters such as high school entrance exams have decreased.[121] Besides this

[120] Many students are also tutored in subjects not required for exams, such as foreign languages, music and computer science.

[121] In addition, people are now free to choose among various means of access to higher education: payment of a large amount of money without taking an entrance exam (private universities); a diploma after twelve years of

seemingly idealistic explanation of the continuation and reinforcement of the tutoring system, there might be a few more.[122]

In analyzing the educational reform, we come across two processes that intersect and interact with each other – the process itself and the processes of the larger society within the movement. Ordinary people, representing deep structures of the local cultural heritage, play an important role in this process: they attach their own meanings to the educational reform and modify it considerably. During the Communist regime, the Communist party's claims to total power over Romanian society were somehow discouraged every day by a thoroughgoing anarchy and resistance. Today, the government is still perceived to be in opposition to the people and the people continue their game of "beating the system." An internal resistance is undermining the official discourse on reform. A somewhat belief in the ephemeral character of governments and their sometimes-revocable decisions makes people remain cautious and prepared for "the worst." The main reason why tutoring is still widely practiced is the students' anxiety, if not terror, when it comes to entrance exams. The youngster has the feeling that the textbook (usually put together by a few superintendents along with a university professor) does not offer sufficient training. Therefore, students feel compelled to resort to extra training and their parents need to be reassured that their children would be successful.

So far, we have tried to discuss the reasons behind the apparent long life of the tutoring system. As for the teachers' participation, it is strongly related to their social and economical situation. Darvas and Nagy (1998) talk about the "professional legitimacy," which was given (in the communist period) by the external bureaucratic control to the teachers In that elitist type of schooling, teachers used to play a great role in the students' lives (this was equally true for the pre-1945 period), even though, socially and economically, they did not enjoy high prestige. Average teacher salaries were set at the lowest of the intellectual professions, which were already low compared to similar professions elsewhere in Europe (Darvas and Nagy, 1998, p. 216). Nowadays, an attempt at reinforcing the authority of teachers and their professional legitimacy is, interestingly enough, realized through the parallel system of education.

Romanian teachers today may be characterized as having rather acceptable schedules and teaching loads by international comparison, but hardly bearable and fast-deteriorating pay conditions. Romanian teachers are perhaps worse paid than any other teachers in the OECD countries. Moreover, teachers' pay conditions have steadily decreased since the early 1990s, parallel with the fall in student

primary and secondary education and their grades during secondary education studies; or going through a severe selection at the entrance examination.

[122] Paradoxically enough, in the context of a governing party's ideology of egalitariansm, communism favored an elitist and meritocratic education system. Of course, despite the declared principle of equality, the educational systems in Eastern Europe reflected unequal schooling, and early selection and tracking. Nevertheless, one can easily notice that the idea of schooling is still equivalent to Humboldtian principles and Herbartian pedagogy.

numbers. The teachers' pay is considered low not only by international comparison, but also within the Romanian salary system.[123]

Most important, there is evidence that the current system is promoting inequality in the access to education in new ways. Even though, theoretically, education is free for everybody, not everyone can afford it. Parents often encourage teachers to be lenient and give students high grades that would secure them admission to universities; in exchange for this service, parents would liberally shower the teachers with gifts and money (World Bank, 2000b). Understood as a way of adjusting their low salaries, privately tutoring students is a time- and effort-consuming process, which makes many teachers neglect their class teaching. They do not have any incentive to put much enthusiasm in their work in class. Tutoring has become a business for many teachers.[124] However, the social experiences of teachers in general have become very different: not everyone appeals to tutoring. As a result of the reform, certain subject matters, whose acquisition used to involve tutoring, have become less important (among them are physics, chemistry, history, biology, and even math). Also, not every math or Romanian language teacher is tutoring (selecting a tutor is based to a large extent on her/his prestige, experience, advertisement skills, and her/his more or less enjoyable presence and affable personality). Moreover, Halász talks about an increasing social segregation in schools where a growing differentiation of the school system is experienced (Halász, 1997).

D. Conclusions: New Issues Related to Access, Equity and Quality

The tutoring system opens paths for talking about issues related to access and equity in secondary education. Many parents and students make considerable efforts in order to afford to pay often high prices for an hour of tutoring. This is happening in the conditions of an increasing rate of unemployment and the degradation of lifestyle for many people.

The parent-teacher relationship could be defined as an ambiguous one. Many parents are pushing for academic style and quality (which might be another reason for the expansion of the tutoring system) while many others are too busy making money (an increasing number of people have two or more jobs) to really take care of their children. The growing number of students dropping out has multiple causes, including poverty and distrust in the power of education to help them advance socially and financially. Only in the 1997-1998 school year, the student dropout rate was 0.8% from the total number of registered students at the lower secondary education level, and 4.2 % at the upper-secondary one. This represents a noticeable increase comparative to the 1995-1996 year (see Table 30).

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[123] The teachers' monthly salary amounts to roughly $60.

[124] It is intriguing that parents become increasingly demanding and selective and do a lot of bargaining in an attempt to impose unfulfillable conditions to the tutors, who receive for their efforts only a humiliatingly meager reward (which they have to accept, given their incredibly low salaries). There is, therefore, a marked decline in their social status (interview with Mihaela Nistor).

Table 30. Student dropout rate, 1995-1998 (percentages)

Secondary Education	Student dropouts 1995-1996	Student dropouts 1996-1997	Student dropouts 1997-1998
Lower-Secondary Level	0.6	0.8	0.8
Upper-Secondary level	3.9	4.0	4.2

Source: Institute for Educational Sciences, 1999.

In close relationship to the dropout phenomenon there is an alarming amount of absenteeism from schools. Among its causes are poverty (there is mounting evidence concerning students who do not have the minimum necessary conditions to attend school – clothes, shoes, food, etc.) and, for many students, the luring face of a new society, which promises wealth, glory and "freedom." Since under present conditions good education is, in most cases, minimally rewarded with money or positions, it is logical to expect that there be little incentive to attain it. To some extent, this attitude exists and is partly reflected in the large number of out-of-school youth. In addition, Romanian education is beset now with troubles such as juvenile delinquency, early pregnancy, prostitution, and drug abuse, which were rare exceptions only a dozen years ago.

Under these circumstances, there were attempts, starting with the 1998-1999 school year, to identify the causes and the tendencies of social exclusion and to introduce a monitoring system of school participation.

During the 1998-1999 school year, of the total number of 1315 upper secondary institutions, 85% were located in urban areas, and 94% of the total number of pupils were enrolled in these institutions. According to the official data of the National Commission for Statistics, the education participation rates of 15- to 19-year-olds, the normal cohorts for upper-secondary education, were relatively low (see Table 31).

Table 31. Education participation of 15- to 19-year-old students in upper secondary education

	1992	1995	1996	1997	1998
Upper Secondary Education	65.7	68.6	69.1	68.6	67.8

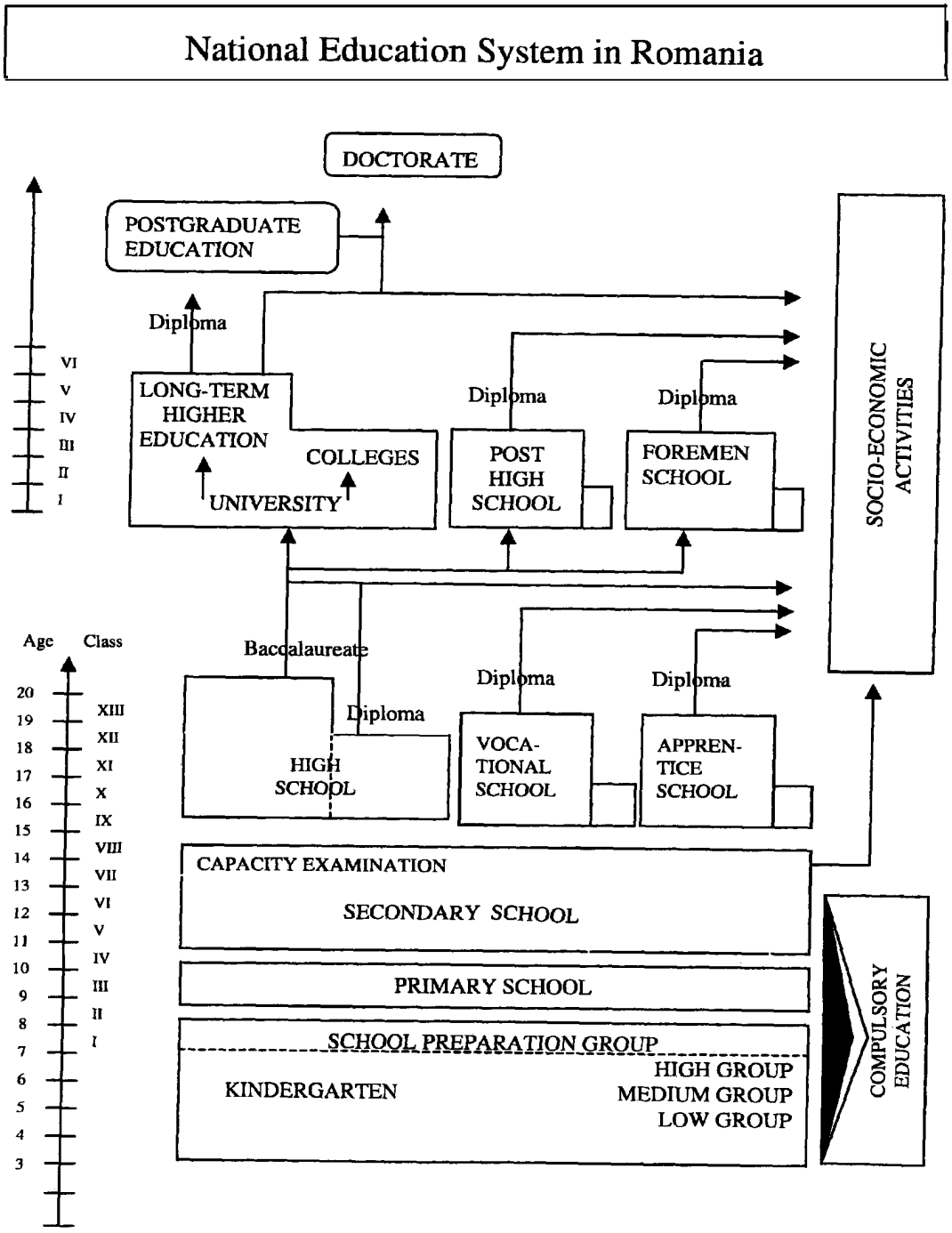
Causes of social exclusion are various and they are in close relationship to economical conditions rather than to any educational reform. Could the new education framework repair inequalities that society is endorsing? The answer is not simple at all. So far, there is a danger that schooling itself helps growing social differentiation instead of playing a corrective role in social processes. Even though most stakeholders in Romanian education today are well aware of the present difficulties, these problems are still not conceptualized and not much discussed in public.

RECOMMENDATIONS FOR THE NEXT PHASE OF THE EDUCATION REFORM

The World Bank (2000a) considers that Romania has made significant steps in the right direction regarding education; supposedly, the ongoing reform will strengthen the students' ability to learn in a way that will help them succeed in a market economy. However, in order to continue reform at a reasonable pace, it is necessary to sustain investments during the coming years. World Bank specialists suggest that the next phase of the reform implementation could benefit from the following measures: 1) focus resources on improving the teaching and learning process; 2) address inequities in learning outcomes; and 3) design reforms to account for their timing and context (World Bank, 2000b).

The low salaries of the teachers are one of the constant challenges of the emerging education system. As long as their profession is financially and, implicitly, socially devalued, many of them will continue to lose their interest and enthusiasm in teaching in the classrooms. They need incentives in order to become active participants in the reform process. Otherwise, the success of any reform will remain merely a desideratum and will be thoroughly thwarted..

Figure 5. Description of the Romanian Education System



Source: Institute for Educational Sciences. Bucharest, Romania.

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ANNEXES

ANNEX A: ENROLLMENT RATIO TABLES, BY REGION

Primary and secondary enrollment ratios in Sub-Saharan Africa in the 1990s

Country	Primary												Secondary											
	Gross enrolment ratio (%)						Net enrolment ratio (%)						Gross enrolment ratio (%)						Net enrolment ratio (%)					
	Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996	
Benin	58	78	78	98	39	57	49	63	65	80	32	47	12	18	17	26	7	11	…	…	…	…	…	…
Botswana	113	108	109	107	117	108	93	81	90	79	97	83	43	65	41	61	45	68	34	44	31	40	36	49
Burkina Faso	33	40	41	48	26	31	27	31	33	37	21	24	7	…	9		5	…	7	…	9	…	5	…
Burundi	73	51	79	55	66	46	…		…	…	…	…	6	7	7		4	…	…	…	…	…	…	…
Cameroon	101	88	109	93	93	84	…	…	…	…	…	…	28	27	33	32	23	22	…	…	…	…	…	…
Cape Verde	121	148	…	150	…	147	…	…	…	…	…	…	21	55		54	…	56	…	48	…	47	…	48
Congo	133	114	141	120	124	109	…	…	…	…	…	…	53	53	62	62	44	45	…	…	…	…	…	…
Cote d'Ivoire	67	71	79	82	56	60	47	55	…	63	…	47	22	25	30	34	14	16	…	…	…	…	…	…
Ethiopia	33	43	39	55	26	30	32	…	…	39	…	24	14	12	16	14	13	10	…	…	…	…	…	…
Ghana	75	79	82	84	68	74	…	…	…	…	…	…	36	…	45		28	…	…	…	…	…	…	…
Kenya	95	85	97	85	93	85	…	…	…	…	…	…	24	24	28	26	21	22	…	…	…	…	…	…
Lesotho	112	108	100	102	23	114	73	70	65	64	81	76	25	31	20	25	30	36	15	18	10	13	20	24
Madagascar	103	92	103	92	103	91	…	61	…	59	…	62	18	16	18	16	18	16	…	…	…	…	…	…
Malawi	68	134	74	140	62	127	50	100	52	100	48	100	8	17	11	21	5	12	…	…	…	…	…	…
Mauritius	109	106	109	106	57	50	95	98	95	98	95	98	53	64	53	63	53	66	…	…	…	…	…	…
Mozambique	67	60	77	70	85	132	44	40	49	45	38	34	8	7	10	9	6	5	…	6	…	7	…	5
Namibia	129	131	123	129	135	132	89	91	…	…	…	…	44	61	39	56	49	66	…	36	…	…	…	…
Senegal	59	71	68	78	50	65	48	60	55	65	41	55	16	16	21	20	11	12	…	…	…	…	…	…
Sierra Leone	50	60	60	…	41	…	…	…	…	…	…	…	17	…	22		13	…	…	…	…	…	…	…
South Africa	122	133	125	135	121	131	100	96	100	95	100	96	74	95	69	88	80	103	51	58	47	53	54	63

Source: UNESCO. (2000). Secondary education: duration, population, and enrolment ratios: [Online]. Available:

http://www.unesco.org/education/information/wer/WEBtables/Ind4web.xls http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xl

Primary and secondary enrollment ratios in Arab States in the 1990s

Country	Primary												Secondary											
	Gross enrolment ratio (%)						Net enrolment ratio (%)						Gross enrolment ratio (%)						Net enrolment ratio (%)					
	Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996	
Algeria	100	107	108	113	92	102	93	93	99	97	87	91	62	63	67	65	54	62	54	56	60	58	48	54
Bahrain	110	106	110	105	110	106	99	99	99	97	99	99	100	94	98	91	101	98	85	83	84	79	86	87
Egypt	94	101	101	108	86	94	…	…	…	98	…	88	76	75	84	80	68	70	…	67	…	71	…	64
Iraq	111	85	120	92	102	78	…	…	…	81	…	71	47	42	57	51	36	32	…	…	…	…	…	…
Jordan	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
Kuwait	60	77	62	78	59	77	45	45	45	62	44	61	51	65	51	65	51	65	45	61	46	62	45	61
Lebanon	118	111	120	113	116	108	…	…	…	…	…	…	74	81	71	78	76	84	…	…	…	…	…	…
Libya	105	…	108	…	102	…	…	…	…	…	…	…	86	…	…	…	…	…	…	…	…	…	…	…
Morocco	67	86	79	97	54	74	58	58	68	83	48	65	35	39	41	44	30	34	…	…	…	…	…	…
Oman	86	76	90	78	82	74	70	70	73	70	68	68	46	67	51	68	40	66	…	…	…	…	…	…
Palestine	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
Qatar	97	86	101	87	94	86	87	87	87	…	86	59	81	80	77	80	85	79	67	…	64	…	70	…
Saudi Arabia	73	76	78	77	68	75	59	59	65	63	53	60	44	58	49	62	39	54	31	48	34	54	28	41
Syrian Arab Republic	108	101	114	106	102	96	98	98	100	95	93	87	52	42	60	45	44	40	46	38	52	40	39	36
Tunisia	113	118	120	122	107	114	94	94	97	99	90	96	45	65	50	66	40	63	43	…	46	…	39	…
United Arab Emirates	104	89	106	91	103	87	94	94	95	79	93	78	67	80	63	77	72	82	59	71	56	68	63	74
Yemen	…	70	…	100	…	40	…	…	…	…	…	…	…	34	…	53	…	14	…	…	…	…	…	…

Source: UNESCO. (2000). Secondary education: duration, population, and enrolment ratios: [Online]. Available:

http://www.unesco.org/education/information/wer/WEBtables/Ind4web.xls http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xls

Primary and secondary enrollment ratios in Asia in the 1990s

Country	Primary												Secondary											
	Gross enrolment ratio (%)						Net enrolment ratio (%)						Gross enrolment ratio (%)						Net enrolment ratio (%)					
	Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996	
Bangladesh	72	…	77	…	66	…	64	…	68	…	60	…	19	…	25	…	13	…	18	…	24	…	12	…
Brunei Darussalam	115	106	119	109	112	104	91	91	92	90	90	91	69	77	66	72	71	82	71	68	77	64	65	71
Cambodia	121	110	…	119	…	100	…	98	…	…	…	…	32	24	45	31	19	17	…	…	…	…	…	…
China	125	123	130	122	120	123	97	100	99	100	95	100	49	70	55	74	42	66	…	…	…	…	…	…
India	97	100	110	109	84	90	…	…	…	…	…	…	44	49	55	59	33	39	…	…	…	…	…	…
Indonesia	115	113	117	115	114	110	97	95	100	96	95	93	44	51	48	55	40	48	38	42	40	45	35	39
Japan	100	101	100	101	100	101	100	100	100	100	100	100	97	103	96	103	98	104	97	…	…	…	…	…
Kazakhstan	87	98	…	97	…	98	…	…	…	…	…	…	98	87	97	82	99	91	…	…	…	…	…	…
Lao PDR	105	112	118	123	92	101	61	72	66	76	57	68	25	28	31	34	19	23	15	22	17	25	13	19
Malaysia	94	101	94	101	94	101	…	100	…	100	…	100	56	64	55	59	58	69	…	…	…	…	…	…
Maldives	…	128	…	130	…	127	…	…	…	…	…	…	…	59	…	59	…	60	…	…	…	…	…	…
Mongolia	97	88	96	86	98	91	…	81	…	79	…	83	82	56	77	48	88	65	…	53	…	45	…	61
Nepal	108	113	132	129	81	96	…	…	…	…	…	…	33	42	46	51	20	33	…	…	…	…	…	…
Pakistan	61	…	82	…	39	…	…	…	…	…	…	…	23	…	30	…	15	…	…	…	…	…	…	…
Philippines	111	114	113	115	109	113	97	100	…	…	…	…	73	77	74	77	73	78	57	59	…	…	…	…
Republic of Korea	105	94	105	94	105	94	100	92	100	92	100	93	90	102	91	102	88	102	86	97	87	97	85	98
Singapore	104	94	105	95	102	93	…	92	…	93	…	92	68	74	70	…	66	…	…	…	…	…	…	…
Sri Lanka	106	109	107	110	105	108	…	…	…	…	…	…	74	75	71	72	77	78	…	…	…	…	…	…
Thailand	99	87	100	…	98	…	…	…	…	…	…	…	30	56	31	…	30	…	…	…	…	…	…	…
Uzbekistan	81	78	82	79	81	76	…	…	…	…	…	…	99	94	104	100	95	88	…	…	…	…	…	…
Viet Nam	103	113	…	115	…	111	…	…	…	…	…	…	32	47	33	48	31	46	…	…	…	…	…	…

Source: UNESCO. (2000). Secondary education: duration, population, and enrolment ratios: [Online]. Available:

http://www.unesco.org/education/information/wer/WEBtables/Ind4web.xls http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xls

Primary and secondary enrollment ratios in Eastern Europe in the 1990s

Country	Primary												Secondary											
	Gross enrolment ratio (%)						Net enrolment ratio (%)						Gross enrolment ratio (%)						Net enrolment ratio (%)					
	Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996	
Albania	100	107	100	106	100	108	...	100	...	100	...	100	78	38	84	37	72	38	...	...	...	...	...	...
Belarus	95	98	...	100	...	96	...	85	...	87	...	84	93	93	...	91	...	95	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...	...	...	...	...			...	...	...	...	...	...	...	...	...	...	...	...
Bulgaria	98	99	99	100	96	98	86	92	86	93	86	91	75	77	74	77	77	76	63	74	62	...	65	...
Croatia	85	87	85	88	84	87	79	82	79	83	79	82	76	82	73	81	80	83	63	66	60	...	66	...
Czech Republic	96	104	96	105	97	103	...	91	...	92	...	91	91	99	93	97	90	100	...	87	...	86	...	89
Estonia	111	94	112	95	109	93	...	87	...	87	...	86	102	104	98	99	107	109	...	83	...	80	...	86
Hungary	95	103	95	104	95	102	91	97	91	97	92	96	79	98	78	96	79	99	75	86	73	85	76	87
Latvia	94	96	95	98	94	93	...	89	...	92	...	87	93	84	93	82	93	85	...	79	...	78	...	79
Lithuania	91	98	93	99	88	96	...	...	...	...	...	...	92	86	...	85	...	88	...	...	...	...	...	...
Poland	98	96	99	97	98	95	97	95	97	95	97	94	81	98	80	98	83	97	76	85	73	81	79	88
Republic of Moldova	93	97	93	98	93	97	...	...	...	...	...	...	80	80	77	79	83	82	...	...	...	...	...	...
Romania	91	103	91	104	91	103	...	95	...	96	...	95	92	78	92	79	92	78	...	73	...	72	...	74
Russian Federation	109	107	109	108	109	107	...	93	...	93	...	93	93	...	91	...	96	...	...	...	...	...	...	...
Slovakia	...	102	...	102	...	102	...	...	...	...	...	...	...	94	...	92	...	96	...	...	...	...	...	...
Slovenia	108	98	...	98	...	98	...	95	...	95	...	94	91	92	...	90	...	93	...	...	...	...	...	...
The FYR of Macedonia	99	99	100	100	98	98	94	95	95	96	94	94	56	63	56	64	55	62	...	56	...	57	...	55
Ukraine	89	...	89	...	89	...	...	...	...	...	...	...	93	...	...	...	...	...	...	...	...	...	...	...
Yugoslavia	72	69	71	69	73	70	69	...	69	...	70	...	63	62	62	60	64	64	62	...	61	...	63	...

Source: UNESCO. (2000). Secondary education: duration, population, and enrolment ratios: [Online]. Available:

http://www.unesco.org/education/information/wer/WEBtables/Ind4web.xls http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xls

Primary and secondary enrollment ratios in Latin America and the Caribbean in the 1990s

Country	Primary												Secondary											
	Gross enrolment ratio (%)						Net enrolment ratio (%)						Gross enrolment ratio (%)						Net enrolment ratio (%)					
	Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996	1990	1996
Argentina	106	113	…	114	…	113	…	…	…	…	…	…	71	77	…	73	…	81	…	…	…	…	…	…
Bahamas	102	98	102	…	103	…	96	…	96	…	97	…	94	87	94	…	94	…	87	…	87	…	88	…
Barbados	93	…	93	…	93	…	78	…	78	…	73	…	…	…	…	…	…	…	…	…	…	…	…	…
Belize	112	121	113	123	110	119	…	…	…	…	…	…	41	49	39	47	44	52	29	…	27	…	30	…
Bolivia	95	…	99	…	90	…	91	…	95	…	87	…	37	…	40	…	34	…	29	…	32	…	27	…
Brazil	106	125	…	…	…	…	86	90	…	…	…	…	38	56	…	…	…	…	15	…	…	…	…	…
Chile	100	101	101	103	99	100	89	89	90	91	88	88	73	75	71	72	76	78	55	58	53	56	57	60
Colombia	102	113	95	113	109	112	69	85	…	…	…	…	50	61	47	57	53	66	34	46	…	42	…	49
Costa Rica	101	104	101	104	101	103	86	89	86	89	87	89	42	47	41	45	43	49	36	40	34	…	37	…
Cuba	98	106	99	108	96	104	92	100	92	100	92	100	89	81	83	76	95	85	69	…	64	…	74	…
Dominican Republic	…	94	…	94	…	94	…	…	…	…	…	…	…	54	…	47	…	61	…	22	…	18	…	26
Ecuador	116	127	…	134	…	119	…	…	…	…	…	…	55	50	…	50	…	50	…	…	…	…	…	…
El Salvador	81	97	81	98	82	96	…	78	…	78	…	78	26	34	26	32	27	36	…	22	…	21	…	23
Guatemala	81	88	86	93	76	82	…	72	…	76	…	69	23	36	…	27	…	25	…	…	…	…	…	…
Guyana	98	96	98	97	97	96	93	87	93	87	93	87	83	75	81	73	86	78	71	66	68	64	73	68
Haiti	48	…	49	…	46	…	22	…	22	…	23	…	21	…	21	…	20	…	…	…	…	…	…	…
Honduras	108	111	105	110	110	112	89	…	…	…	…	…	33	…	29	…	37	…	21	…	…	…	…	…
Jamaica	101	100	102	100	101	99	96	…	96	…	96	…	65	…	63	…	67	…	64	…	62	…	65	…
Mexico	114	114	115	116	112	113	100	100	…	100	…	100	53	64	53	64	54	64	45	51	…	…	…	…
Nicaragua	94	102	91	100	96	103	72	78	71	76	73	79	40	55	34	50	47	60	…	…	…	…	…	…
Panama	106	105	108	…	104	…	91	…	91	…	92	…	63	69	60	…	65	…	51	…	48	…	53	…
Paraguay	105	111	107	112	103	109	93	91	94	91	92	91	31	43	30	42	32	45	26	38	25	37	26	39
Peru	118	123	119	125	116	121	…	91	…	91	…	90	67	70	…	72	…	67	…	53	…	54	…	52
Suriname	…	…	…	…	…	…	…	…	…	…	…	…	52	…	48	…	56	…	…	…	…	…	…	…
Trinidad and Tobago	97	99	97	99	96	98	91	88	91	88	91	88	80	74	78	72	82	75	…	…	…	…	…	…
Uruguay	109	109	109	109	108	108	91	93	91	92	92	93	81	85	…	…	…	…	…	…	…	…	…	…
Venezuela	96	91	94	90	97	93	88	84	87	83	89	85	35	40	29	33	40	46	19	22	15	18	22	27

Source: UNESCO. (2000). Secondary education: duration, population, and enrolment ratios: [Online]. Available:

http://www.unesco.org/education/information/wer/WEBtables/Ind4web.xls http://www.unesco.org/education/information/wer/WEBtables/Ind6web.xls

ANNEX B: REGIONAL INDICATORS

Secondary education: duration, population, enrollment, and pupil teacher ratios in Sub-Saharan Africa in 1990s

Country	Duration in years of primary and secondary general education			School-age Population (000)		Gross enrolment ratio (%) (Secondary Education)						Pupil teacher Ratio	
						Total		Male		Female			
	Primary	Lower	Upper	1990	1996	1990/1996		1990/1996		1990/1996		1990/1996	
Benin	6	4	3	673	955	12	18	17	26	7	11	29	27
Botswana	7	2	3	145	183	43	65	41	61	45	68	19	18
Burkina Faso	6	4	3	1,383	…	7	…	9	…	5	…	29	…
Burundi	6	4	3	787	884	6	7	7	…	5	…	26	…
Cameroon	6	4	3	1,789	2,052	28	27	33	32	4	…	29	31
Cape Verde	6	3	3	47	58	21	25	…	54	23	22	30	25
Congo	6	4	3	346	403	53	53	62	62	…	56	35	33
Cote d'Ivoire	6	4	3	1,786	2,448	22	25	30	34	44	45	…	31
Ethiopia	6	2	4	6,079	7,288	14	12	16	14	14	16	38	35
Ghana	6	4	3	2,336	…	36	…	45	…	13	10	19	…
Kenya	8	*	4	2,681	2,735	24	24	28	26	21	22	20	15
Lesotho	7	3	2	191	222	25	31	20	25	30	36	21	24
Madagascar	5	4	3	1,885	2,050	18	16	18	16	18	16	22	18
Malawi	8	2	2	784	860	8	17	11	21	5	12	29	22
Mauritius	6	3	4	150	149	53	64	53	63	53	66	21	20
Mozambique	5	2	5	2,099	2,625	8	7	10	9	6	5	42	38
Namibia	7	*	5	142	171	44	61	39	56	49	66	…	…
Senegal	6	4	3	1,112	1,327	16	6	21	20	11	12	22	24
Sierra Leone	7	5	2	592	…	17	…	22	…	13	…	18	…
South Africa	7	3	2	3,691	3,984	76	95	69	88	80	103	26	29

Source: UNESCO Statistics. (2000). [Online]. Available: http://unescostat.unesco.org; UNESCO. (2000). World Education Report 2000. [Online].Available: http://www.unesco.org/education/information/wer/index.htm

Secondary education: duration, population, enrollment, and pupil teacher ratios in Asia in the 1990s

Country	Duration in years of primary and secondary general education			School-age Population (000)		Gross enrolment ratio (%) (Secondary Education)						Pupil teacher Ratio	
						Total		Male		Female			
	Primary	Lower	Upper	1990	1996	1990/1996		1990/1996		1990/1996		1990/1996	
Bangladesh	5	5	2	18,931	...	19	...	25	...	13	...	27	...
Brunei Darussalam	6	5	2	33	40	69	77	66	72	71	82	...	12
Cambodia	6	3	3	825	1,290	32	24	45	31	19	17	15	18
China	5	3	2	107,582	102,561	49	70	55	74	42	66	15	16
India	5	3	4	123,813	139,319	44	49	55	59	33	39	29	32
Indonesia	6	3	3	24,913	25,438	44	51	48	55	40	48	13	...
Japan	6	3	3	11,355	9,563	97	103	96	103	98	104	17	...
Kazakhstan	4	5	2	2,187	2,220	98	87	97	82	99	91	13	...
Lao PDR	5	3	3	548	659	25	28	31	34	19	23	12	...
Malaysia	6	3	4	2,586	3,031	56	64	55	59	58	69	19	19
Maldives	5	5	2	...	45	...	59	...	59	...	60	... ...	
Mongolia	4	4	2	365	348	82	56	77	48	88	65	18	18
Nepal	5	3	2	2,140	2,652	33	42	46	51	20	33	31	...
Pakistan	5	3	4	19,141	...	23	...	30	...	15	...	...	...
Philippines	6	...	4	5,510	6,323	73	77	74	77	73	78	33	35
Republic of Korea	6	3	3	5,075	4,573	90	102	91	102	88	102	25	25
Singapore	6	4	3	324	298	68	74	70	...	66	...	18	19
Sri Lanka	5	6	2	2,822	3,092	74	75	71	72	77	78	19	22
Thailand	6	3	3	7,410	6,963	30	56	31	...	30	...	17	...
Uzbekistan	4	5	2	3,214	3,532	99	94	104	100	95	88	11	...
Viet Nam	5	4	3	10,553	11,712	32	47	33	48	31	46	18	27

Source: UNESCO Statistics. (2000). [Online]. Available: http://unescostat.unesco.org; and UNESCO. (2000). World Education Report 2000. [Online]..Available: http://www.unesco.org/education/information/wer/index.htm

Secondary education: duration, population, enrollment, and pupil teacher ratios in Arab States in the 1990s

Country	Duration in years of primary and secondary general education			School-age Population (000)		Gross enrolment ratio (%) (Secondary Education)						Pupil teacher Ratio	
						Total		Male		Female			
	Primary	Lower	Upper	1990	1996	1990/1996		1990/1996		1990/1996		1990/1996	
Algeria	6	3	3	3, 576	4, 136	62	63	67	65	54	62	17	17
Bahrain	6	3	3	47	61	100	94	98	91	101	98	16	15
Egypt	5	3	3	7, 229	8, 978	76	75	84	80	68	70	20	17
Iraq	6	3	3	2, 547	2, 772	47	42	57	51	36	32	23	20
Jordan	10	…	2	…	…	…	…	…	…	…	…	16	17
Kuwait	4	4	4	330	332	51	65	51	65	51	65	10	11
Lebanon	5	4	3	390	430	74	81	71	78	76	84	…	…
Libya	9	…	3	299	…	86	…	…	…	…	…	16	…
Morocco	6	3	3	3, 387	3, 689	35	39	41	44	30	34	15	17
Oman	6	3	3	222	325	46	67	51	68	40	66	16	18
Palestine	10	…	2	…	…	…	…	…	…	…	…	…	7
Qatar	6	3	3	37	48	81	80	77	80	85	79	9	10
Saudi Arabia	6	3	3	2, 031	2, 462	44	58	49	62	39	54	13	13
Syrian Arab Republic	6	3	3	1, 762	2, 255	52	42	60	45	44	40	19	17
Tunisia	6	3	4	1, 258	1, 428	45	65	50	66	40	63	…	19
United Arab Emirates	6	3	3	161	227	67	80	63	77	72	82	…	13
Yemen	9	…	3	…	1, 031	…	34	…	53	…	14	…	21

Source: UNESCO Statistics. (2000). [Online]. Available: http://unescostat.unesco.org; and UNESCO. (2000). World Education Report 2000. [Online] Available: http://www.unesco.org/education/information/wer/index.htm

Central and Eastern European secondary education: duration, population, enrollment, and pupil-teacher ratios in 1990s

Country	Duration in years of primary and secondary general education		School-age population (000)		Gross enrolment ratio (%)						Net enrolment ratio (%)						Pupil teacher ratio	
					Total		Male		Female		Total		Male		Female			
	Lower	Upper	1990	1996	1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996		1990/1996	
Albania	...	4	263	240	78	38	84	37	72	38	...	...	...	...	...	...	8	9
Belarus	5	2	1,041	1,146	93	93	...	91	...	95	...	...	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	11
Bulgaria	* 4	4	521	955	75	77	74	77	77	76	63	74	62	...	65	...	...	14
Croatia	* 4	4	244	510	76	82	73	81	80	83	63	66	60	...	66	...	16	12
Czech Republic	4	4	1,391	1,207	91	99	93	97	90	100	...	87	...	86	...	89	...	9
Estonia	* 2	3	132	108	102	104	98	99	107	109	...	83	...	80	...	86	...	12
Hungary	4	4	654	1,138	79	98	78	96	79	99	75	86	73	85	76	87	...	...
Latvia	5	3	285	286	93	84	93	82	93	85	...	79	...	78	...	79	12	10
Lithuania	5	3	431	439	92	86	...	85	...	88	...	...	...	...	...	...	10	8
Poland	...	4	2,317	2,602	81	98	80	98	83	97	76	85	73	81	79	88	10	...
Republic of Moldova	* 5	2	575	553	80	80	77	79	83	82	...	...	...	...	...	...	14	12
Romania	* 4	4	3,084	2,821	92	78	92	79	92	78	...	73	...	72	...	74	13	...
Russian Federation	5	2	14,958	...	93	...	91	...	96	...	...	...	...	...	...	...	...	...
Slovakia	4	4	...	720	...	94	...	92	...	96	...	...	...	...	...	...	17	15
Slovenia	4	4	229	232	91	92	...	90	...	93	...	...	...	...	...	...	...	...
The FYR of Macedonia	…	4	127	133	5 6	63	56	64	55	62	...	56	...	57	...	55	10	...
Ukraine	* 5	2	3,672	...	93	...	...	...	...	...	...	...	...	...	...	...	...	...
Yugoslavia	4	4	1,243	1,313	63	62	62	60	64	64	62	...	61	...	63	...		

Note: The symbol * is shown when there has been a change in the duration between 1990 and 1996.

Source: UNESCO Statistics. (2000). [Online]. Available: http://unescostat.unesco.org; and UNESCO. (2000). World Education Report 2000. [Online] Available: http://www.unesco.org/education/information/wer/index.htm

Secondary education: duration, population, enrolment and pupil teacher ratios in Latin America and the Caribbean in 1990s

Country	Duration in years of primary and secondary general education		School-age Population (000)		Gross enrolment ratio (%) (Secondary Education)						Pupil teacher Ratio	
					Total		Male		Female			
	Primary	Secondary	1990	1996	1990/1996		1990/1996		1990/1996		1990/1996	
Argentina	7	5	3 038	3 378	71	77	…	73	…	81	…	…
Bahamas	6	6	31	32	94	87	94	…	94	…	…	16
Barbados	7	6	…	…	…	…	…	…	…	…	20	…
Belize	8	4	19	21	41	49	39	47	44	52	14	14
Bolivia	8	4	599	…	37	…	40	…	34	…	…	…
Brazil	8	3	9 101	10 324	38	56	…	…	…	…	…	…
Chile	8	4	980	987	73	75	71	72	76	78	…	…
Colombia	5	6	4 680	4 939	50	61	47	57	53	66	21	20
Costa Rica	6	5	314	389	42	47	41	45	43	49	22	20
Cuba	6	6	1 127	883	89	81	83	76	95	85	11	11
Dominican Republic	8	4	…	667	…	54	…	47	…	61	…	22
Ecuador	6	6	1 422	1 536	55	50	…	50	…	50	13	13
El Salvador	9	3	360	420	26	34	26	32	27	36	…	…
Guatemala	6	6	1 258	1 461	23	36	…	27	…	25	…	…
Guyana	6	5	84	84	83	75	81	73	86	78	44	29
Haiti	6	6	908	…	21	…	21	…	20	…	20	…
Honduras	6	5	588	…	33	…	29	…	37	…	…	…
Jamaica	6	7	365	…	65	…	63	…	67	…	…	…
Mexico	6	6	12 589	12 373	53	64	53	64	54	64	17	17
Nicaragua	6	5	455	573	40	55	34	50	47	60	38	39
Panama	6	6	313	323	63	69	60	…	65	…	20	…
Paraguay	6	6	529	675	31	43	30	42	32	45	15	12
Peru	6	5	2 523	2 672	67	70	…	72	…	67	20	19
Suriname	6	7	64	…	52	…	48	…	56	…	…	…
Trinidad and Tobago	7	5	121	141	80	74	78	72	82	75	20	21
Uruguay	6	6	327	317	81	85	…	…	…	…	…	…
Venezuela	9	2	812	956	35	40	29	33	40	46	…	…

Note: Duration in years does not reflect in some cases the present structure of educational systems.

Source: UNESCO Statistics. (2000). [Online]. Available: http://unescostat.unesco.org; and UNESCO. (2000). World Education Report 2000. [Online]. Available: http://www.unesco.org/education/information/wer/index.htm

ANNEX C: REGIONAL PROFILES

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Benin	Educational Development	1994-2001	National	Government of Benin/Education Development Project World Bank/ Ministry of Education	▪ To increase access for girls at primary and secondary levels; ▪ to improve quality and internal efficiency in primary and secondary education; and ▪ to improve the capacity for planning and managing the sector's human and financial resources.
	Benin Primary Education NGO project	1994-1998	National	USAID	▪ To develop the institutional and technical capacity of local NGOs and other grass-root organizations involved in the education sector in the areas of organizational development, financial management and action-research in primary education.
Botswana	Basic Education Consolidation Project (BEC)	1991-1995	National	USAID	▪ To enhance and increase the capacity of the Ministry of Education, and to consolidate a 10-year basic education program.
Burkina Faso	Education Project (04)	1991 1998	National	World Bank/ Burkina Faso Ministry of Education	▪ To upgrade teaching in schools; ▪ to increase the quality and availability of good quality textbooks and teaching materials; ▪ to strengthen the secondary school inspectorate; ▪ to improve the allocation and increase efficiency in the use of sector resources; and ▪ to promote private initiatives in the provision of education.
	Post Primary Education Project	1996-2002	National	Government of Burkina Faso/Ministry of Secondary and Higher Education and Scientific Research	▪ To have more/better trained students graduate from secondary schools at reduced subsidy costs, with increased equality between gender and income levels; ▪ to construct new public schools; ▪ to encourage privatization; and ▪ to strengthen the Ministry of Secondary and Higher Education.

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Cote d'Ivoire	Education and Training Support Project	1998-2002	National	Government of Cote d'Ivoire	▪ To improve learning at the primary and secondary levels by reversing curriculum content and implementation; and ▪ to expand access to schools in under-served and unserved areas by supporting new approaches to construction and maintenance of public schools.
Ethiopia	Education Project (07)	1988-1998	National	Government	▪ To improve instructional practices and educational materials to secondary schools; and ▪ to strengthen planning and managerial capabilities of the system.
	Basic Education System Overhaul Project (BESO)	1995-2001	National	USAID	▪ To improve the quality and equity of primary education in an expanding and decentralizing system.
Ghana	Primary Education Reform Program (PREP)	1991-1996	National	USAID	▪ To strengthen the policy and institutional frameworks required to assure a quality, accessible, equitable, and financially sustainable Ghanaian primary education system.
Guinea	Equity and School Improvement Project	1995-2001	National	Government/ Ministry of Pre university Education	▪ To improve the quality of education; ▪ to improve teaching and student learning in primary and lower secondary schools; and ▪ to strengthen educational system management.
	Education Sector Reform Project	1990-1996	National	USAID	▪ To achieve a level of staff and organizational performance within the Ministry of Education that promotes a continuously improving quality of schooling to an increasing percentage of primary school age students; and ▪ to ensure equitable access to girls' and rural children through support of the implementation of the National Education Policy of the government.

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Kenya	Strengthening Primary and Secondary Education (STEPS)	2000	National	Government of Kenya/Ministry of Education, Science and Technology/ World Bank	▪ To support efforts to improve access to and enhance quality and efficiency of education; ▪ to decrease the number of subjects taught. ▪ to address the problem of inequitable distribution of teachers within and across districts; and ▪ to establish a more efficient system of teacher management and resource allocation.
	Commission of Inquiry into the Education System of Kenya	2000-2001	National	Government of Kenya/the Davy Koech Report	▪ To change the existing Kenya Certificate of Secondary Education (KCSE) to General Certificate of Education (GCSE); ▪ to focus on quality rather than quantity by reducing the subjects; and ▪ to change the curriculum content.
Malawi	Secondary Education Project	1998-2003	National	Government of Malawi/World Bank	▪ To increase the number of students from disadvantaged groups who graduate from public and private secondary schools with higher performance by: ▪ expanding access to secondary education by constructing day secondary schools; ▪ focusing on quality by providing textbooks, school supplies, and consumables for sciences; ▪ enhancing efficiency and effectiveness of secondary education by providing training for school-based managers; ▪ providing HIV/AIDS awareness by financing the rapid adaptation of high-quality, behavior-change instructional materials from Zimbabwe, and the reprinting of some materials; and

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Malawi (continued)	Secondary Education Project (continued)				▪ providing support to administrative unit/monitoring and evaluation/ studies by covering the costs of procurement and a computerized financial management system.
Mali	Basic Education Expansion Program (BEEP)	1989-1999	National	USAID	▪ To improve the quality, equity, and efficiency of Mali's basic education system.
Mauritius	Education Sector Development Project	1993-1998	National	Government of Mauritius/World Bank	▪ To reinforce the international competitiveness of Mauritius' labor force, and transform the country into a technologically more sophisticated economy; ▪ to increase access to and improve the quality of secondary education with specific target of increasing secondary enrolments; ▪ to improve the quality and efficiency of education at all levels, expanding tertiary education, and strengthening education sector planning management; ▪ to renovate and construct new secondary schools; ▪ to provide financial support to upgrade schools and enrolment capacity; ▪ to fund the design and implementation of a renewed national system to assess student achievement; ▪ to support pre-service and in-service teacher training; ▪ to provide library materials and teaching aids; and ▪ to establish an educational information system; ▪ to support research to explore alternative approaches for more effective, efficient and flexible delivery of education;

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Mauritius (continued)	Education Sector Development Project (continued)				▪ to develop a viable institutional framework for a national schools inspectorate; and ▪ to establish a network of regional education centers to provide educational support to schools at the regional level.
	White Paper	1997-2000	National	Government of Mauritius/ Mauritius Ministry of Education	▪ To inaugurate an education system that leads to the enrichment of the individual personality of children; ▪ to increase access to secondary and higher education; ▪ to streamline admission procedures to secondary schools; ▪ to convert existing buildings available within the Ministry of Education, from other ministries and organizations for use as lower secondary schools; ▪ to select and upgrade private secondary schools; ▪ to establish upper secondary schools; ▪ to raise the standards of all schools to do away with the prevailing hierarchy status; ▪ to streamline the curriculum by focusing on aptitudes and achievements rather than selection, on continuous evaluation, remediation and pastoral care rather than end-of-year snapshot examinations based on rigid curricula and outdated teaching-learning process; and ▪ to stress numeracy, literacy and computer literacy as pillars of educational wisdom.
Madagascar	Education Sector Development Project	1998-2003	National	Government of Madagascar/ Ministry of Education/World Bank	▪ To produce more and better trained students at all levels of education; ▪ to improve quality of and access to secondary education, particularly in rural areas, by supporting school-based pilot programs; and

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Madagascar (continued)	Education Sector Development Project (continued)				▪ to strengthen key functions in the Ministry of Education at central and local levels including educational planning, biannual learning and assessments and financial management.
Mozambique	Capacity Building: Human Resources Development Project	1992-2001	National	Government of Mozambique/ Ministry of Education/World Bank	▪ To build and maintain capacity in key public institutions and skill areas by expanding the supply of well-trained senior planners, policy analysts and managers; ▪ to improve quality in upper secondary education, development of a new teacher training program, support to curriculum and examination reform; ▪ to provide textbooks and learning materials, training for school managers and administrative staff; and ▪ to rehabilitate pre-university schools and construct dormitories and staff housing in the provinces, and special measures to increase female enrolment
Namibia	Education Reform and Innovation in Namibia	1998	National	Government of Namibia	▪ To look into classroom practices and change as much as possible from teacher-centered to learner-centered practices; and ▪ to train teachers.
	Basic Education Reform Program (BERP) Basic Education Support Project (BES)	1991-2001	National	USAID	▪ To develop a more effective, efficient, and sustainable basic education system accessible to more Namibian children.
Tanzania	Education Planning and Rehabilitation Project	1990-1997	National	Government of Tanzania/Ministry of Education	▪ To support efforts to revitalize reform and rehabilitate the education system through:

Secondary education projects and reforms profile: Sub-Saharan Africa in the 1990s (continued)

Country	Type/Title	Period	Scope	Institution Involved/Title Funding	Purpose/Rationale
Tanzania (continued)	Education Planning and Rehabilitation Project (continued)				▪ strengthening sector capacity to plan and implement educational policies and programs; ▪ improving the quality of education at the primary and secondary school levels; ▪ strengthening the mobilization of community resources to upgrade educational facilities; ▪ strengthening the institute of curriculum development; ▪ improving the methodology for teaching science courses in secondary schools; ▪ upgrading secondary school libraries; and ▪ increasing community efforts to finance establishment of secondary schools.
South Africa	Education For All (EFA)	2000	National	Government of South Africa	▪ To alleviate illiteracy; ▪ to address the unemployment problem by strengthening job creation initiatives and improving preparedness for the labor market by enhancing the quality of education throughout the different levels; ▪ to transform the education system so as to provide equity, access, quality and efficiency; and ▪ to incorporate the HIV/AIDS education into the curriculum, mainly focusing on secondary schools.
Uganda	Support for Uganda Primary Education Reform (SUPER)	1992-2002	National	USAID	▪ To improve students' mastery of literacy, numeracy and other basic skills; ▪ to improve school administration, management, and accountability; and ▪ to reduce inequalities in persistence among different groups of children.

Secondary education projects and reforms in cases of Arab States in the 1990s

Country	Type	Period	Scope	Institution Involved/ Title/Funding	Purpose/Rationale
Qatar	Curriculum	1990-1991, ongoing	National	Qatar Ministry of Education	▪ To establish center for computers in the Department of Education Technology; ▪ to introduce the use of computer into school administrative; and ▪ to develop a curriculum for science in the secondary school.
	Development of curriculum and textbook	1990-1991, ongoing	National/ Regional	Qatar Ministry of Education and Arab Bureau of Education for the Gulf States (ABEGS)	▪ To introduce a new method of book production; ▪ to compare the curriculum and textbook with Arab countries so as to develop standard textbooks for Arab Gulf States; ▪ to develop curriculum and textbook in Mathematic and Science subjects; and ▪ to develop a curriculum for kindergartens.
Lebanon	Vocational and Technical Schools	1993-1994, ongoing	National	Lebanon Government Islamic Development Bank US$80m	▪ To create a separated Ministry for Vocational and Technical Education; and ▪ to rehabilitate existing public vocational and technical schools.
	Vocational and Technical Education (VTE)	1996-1997, ongoing	National	Ministry of Vocational and Technical Education and World Bank US$69m	▪ To improve relevance, responsiveness and quality of training; ▪ to improve delivery mechanisms by making existing VTE schools more efficient; and ▪ to establish new schools in which the private sector plays the lead role in management and operation.
Egypt	Vocational Experimental Schools	1990	National	Egypt Ministry of Education	▪ To establish new experimental Industrial and agricultural schools; and ▪ to add a new branch in the Agricultural schools to prepare assistant for schools, faculties, and research centers.

Secondary education projects and reforms in cases of Arab States in the 1990s (continued)

Country	Type	Period	Scope	Institution Involved/ Title/Funding	Purpose/Rationale
Egypt (contin-ued)	Technical education development	1995, ongoing	National	Egypt Ministry of Education, German Ministry of Cooperation, German Agency for Technical and Cooperation	▪ To institute practical training in workshops or factories; and ▪ to set up six high-level training center similar to the German model.
	General and Vocational Secondary Schools	1999, ongoing	National	Government of Egypt US$200m World Bank US$50m	▪ To increase the share of general school to reach an even distribution of 50% general and 50% vocational schools; ▪ to improve the quality of both general and technical instruction through modernizing curriculum and assessment methods; ▪ to increase administrative and management efficiency; and ▪ to provide professional development opportunities for teachers and school managers on the use of technology for management and improve classroom practice.
Jordan	Curriculum; textbook; administration and management Vocational and Technical Schools	1994, ongoing	National	Government of Jordan Ministry of Education and Higher Education and National Center for Educational Research and Development US$190m World Bank Co-financing US$80m	▪ To improve educational quality; ▪ to enhance teaching-learning environment including: teaching competencies, curricula and textbooks, administration and management; and ▪ to create a strong institutional framework particularly in relation to vocational and technical education.

Secondary education projects and reforms in cases of Arab States in the 1990s (continued)

Country	Type	Period	Scope	Institution Involved/ Title/Funding	Purpose/Rationale
Saudi Arabia	Development plan of education system to replace huge foreign labor force with indigenous workers	Five-year plan 1985-1990 Five-year plan 1990-1995	National	Saudi Arabia Government	▪ Indigenes the secondary teacher corps (40%) were foreigners; ▪ to develop general education to deal with technological changes and rapid developments in social and economic fields; and ▪ to develop secondary education program in order to face the dropout problem.
Yemen	Secondary and Middle Schools; Mathematic and Science program; Girls in Secondary Schools	1993	National	Government of Yemen Ministry of Education and World Bank US$49.7m	▪ To enhance the learning achievements of secondary studies with special emphasis on science and mathematics education and the quality of teaching; ▪ to improve the access of girls to secondary education; and ▪ to establish labor-market oriented 2-year post-secondary programs covering business, commerce, and industrial subjects.
Algeria	Basic and Secondary Education Support Project	1993-2001	National	Algeria Ministry of Education and World Bank US$40m	▪ To support quality and efficiency improvements in basic and secondary education; ▪ to assist the Ministry of National Education in improving its institutional capacity; and ▪ to support pedagogic research programs of the National Pedagogic Institute (IPN) through: ▪ institutional strengthening of the IPN; ▪ providing about 5,000 new library books, research journals and periodicals in education research; ▪ providing pedagogic materials to about 14,000 basic and secondary schools; and ▪ improving the provision and use of school science laboratory products in about 3,500 grade 7-12 schools and related technical equipment and staff training.

Secondary education projects and reforms in cases of Arab States in the 1990s (continued)

Country	Type	Period	Scope	Institution Involved/ Title/Funding	Purpose/Rationale
Tunisia	Secondary education; school building, technical assistance; training; educational equipment; educational evaluation Quality of education	1994, ongoing	National	Government of Tunisia and World Bank	▪ To improve access to accommodate the projected increase in upper-basic and secondary school enrollments; ▪ to promote more effective teaching and training practices for about 26,000 teachers; and ▪ to construct about 30 upper-basic and 44 secondary schools.
Morocco	Basic Education Project Access to education for girls and boys, Quality of education, Technical assistance, Literacy programs	1996, ongoing	National	Government of Morocco and World Bank	▪ To increase the access to and retention rates of basic schooling; ▪ to reduce the gap between the school participation rates of boys and girls; ▪ to improve education quality; ▪ to improve the performance of government literacy program; and ▪ to provide technical support to the Ministry of National Education to operationalize and implement its Sector Action Plan, which aims to reallocate resources to priority programs and improve budgetary efficiency.

Secondary education projects and reforms in Asia-Pacific in the 1990s

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
U.S.A.	Education and Training Activities/ Basic Education	By June 26, 2002/ active	Worldwide	USAID/ Improving Educational Quality II	▪ To improve educational quality by generating knowledge about the school and reality of educators and students; ▪ to use this knowledge to develop a national consensus through policy dialogue on reform priorities; ▪ to develop in-country capacity for monitoring and evaluating educational result; and ▪ to introduce innovations to improve educational quality in learning systems through applied research on classroom related activities.
	Education and Training Activities/ Basic Education	By February, 2005/ active	Worldwide	USAID/Basic Education Policy and Support (BEPS)	▪ To assist developing and newly independent nations to improve the quality, access to, management and effectiveness of their education systems, particularly non-formal and formal education program.
	Education and Training Activities/ Basic Education and Literacy	September, 1999/ closed	Worldwide	USAID/ Advancing Basic Education and Literacy (ABEL 2)	▪ To improve each country's capacity to plan, manage and operate basic education systems with efficiency and effectiveness, from ministerial to classroom level; ▪ to expand access to and improve the quality of basic education, formal education system, early childhood education, and non-formal education for out of school youth and adult; and ▪ to provide short- and long-term assistance and short-term training to build capacity within education ministries and local schools.
Bangladesh	Secondary Education	1999	National	ADB/ Secondary Education Sector Improvement $60m	▪ To lay the foundation for a reoriented secondary education system that is relevant to this growing formal market as well as to social needs; ▪ to improve the quality of learning that takes place so that it prepares

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Bangladesh (continued)	Secondary Education (continued)				students for the world they will enter upon completion of secondary; and ▪ to improve access of girls and poor students in underserved areas to quality secondary education.
	Secondary Education Sector Improvement Project	1997	National	ADB/ Secondary Education Sector Improvement Project $60m	▪ To lay the foundation for a reoriented secondary education system that is relevant to the growing formal market as well as to social needs; and ▪ to improve access of girls and poor students in underserved areas to quality secondary education.
Cambodia	Basic education for girls and women		National	USAID/Girls' Education	USAID had developed a "girl-friendly" basic education program under the Girls and Women's Education Initiative. This program was focused on developing community-based schools.
	Secondary Education	2000-2001/ active	National	ADB/ Education Sector Development Program $800,000	▪ To help finalize a pro-poor education sector development plan; ▪ to assist in designing priority program for recurrent and capital budgetary support and capacity building; and ▪ to design and implement initial capacity-building programs for improved policy, planning, and program implementation.
China	Teaching Service	1993-1999/ closed	National	WB/Effective Teaching Services Project $100m	▪ To strengthen lower middle school teaching nationwide by providing for development of teaching in 15 provinces and autonomous regions; ▪ to focus on a critical segment of the education system, lower middle school teaching services; and ▪ to consist of three major elements: institution, managements and quality enhancement.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
China (continued)	Basic Education	1994-2000	National	WB/Basic Education in Poor and Minority Areas Project $100m	▪ To improve the quality and effectiveness of educational inputs to teaching points, primary schools, lower secondary schools and rural normal schools in poor and minority areas; ▪ to improve management of schools at the primary, lower secondary and normal school levels; and ▪ to facilitate innovative activities in book publishing, editing and development (in minority language) and action oriented innovation program.
	Basic Education	1996-2001/ active	National	WB/Basic Education Project (03) $100m	▪ To support the attainment of universal primary education and the expansion of coverage of lower secondary education in poor and minority areas; and ▪ to build stronger institutions responsible for education delivery.
	Basic Education	1997-2002/ active	National	WB/Basic Education Project (04) $85m	▪ To increase access/equity for the absolute poor in primary and junior secondary education, paying particular attention to girls and minority nationalities; ▪ to enhance quality in primary and junior secondary schooling, and the corresponding teacher education and training of trainers' program; and ▪ to improve efficiency in education delivery through improving educational management at national, provincial, country, and project institutional levels.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
China (continued)	Vocational Education	1996-2002/ active	Regional	WB/Vocational Education Reform Project $30m	▪ To improve and increase the supply of skilled labor to meet labor market demands; ▪ to raise the quality and efficiency of the vocational education and training system; and ▪ to build up capacity for monitoring, evaluation and dissemination of pilot experiences and replication.
	Quality-Oriented Education	1999	National	The National Education Conference/ Quality-oriented education	▪ To suit students' social development, to promote all and every individual students' full development.
	Curriculum (Science & Technology)	By 2005	National	National/ Information technology course	▪ To set up information courses to develop students' interest in information technology by 2005.
India	Basic education for girls and women		Regional	USAID/Girls Education	▪ Has developed a women's empowerment objective, which includes educating girls, in one district in the state of Uttar Pradesh; ▪ to expand the role and participation of women in decision-making; and ▪ to work with women and girls in three areas: education, financial services for economic empowerment, and reduction of domestic violence.
	Curriculum (Computer)	1984-1985 1993-1994	National	The Department of Electronics + the Ministry of Human Resource Development/ Computer Literacy and Studies in School	▪ To provide pupils with an understanding of computers and their use; ▪ to provide hands-on experience; ▪ to demystify computers to young school goers; and ▪ to familiarize pupils with a range of computer application and with the computer's potential as a controlling and information processing tool.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
India (continued)	Curriculum (Computer)	2000	National	The Ministry of Human Resource Development/ A New School Computing Program Class 2000	▪ To implement computer literacy in 10,000 schools; ▪ to implement computer-aided learning in 1000 schools; and ▪ to implement computer-based education to 100 Smart Schools which will become model centers for other schools.
Indonesia	Curriculum (Science)	1994-1999	National	Government/ The 2000 school science curriculum reform	▪ To provide national standard of basic competence in science and technology.
	Curriculum (Technology)		National/ Regional	Government/ Basic Technology Education (BTE) Pilot Project	▪ To improve the technological awareness and skills of junior secondary school students; and ▪ to orientate students on the impact of technology on local activities.
	Curriculum	1994-2018/ active	National	Government/ The second twenty-five long-term development plan – PJP (1994-2018)	▪ To see the completion of the nine-year universal basic education program; ▪ to determine the relevance of education to development; and ▪ to improve capacity to master science and technology.
	Teacher Development	1996-2001/ active	National	WB/Secondary school teacher development project $60.4m	▪ To improve pre-service and in-service teacher education; ▪ to strengthen linkages to secondary schools; ▪ to raise the qualifications of teacher educators; and ▪ to build educational research capacity.
	Junior Secondary	1996-2002/ active	National/ Regional	WB/Sumatra Junior Secondary Education project $98m	▪ To achieve a greater number of junior secondary school graduates of better quality upon graduation.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Indonesia (continued)	Junior Secondary	1996-2002/ active	National/ Regional	WB/Central Indonesia Junior Secondary Education Project $104m	▪ To expand access to junior education in a cost-effective way; ▪ to improve the quality of junior and senior secondary education; and ▪ to strengthen the management of the education system at all levels.
	Junior Secondary	1996-2002/ active	Regional	WB/East Java and East Nusa Tenggrada Junior Secondary Education Project $99m	▪ To expand access to JSE in a cost-effective way; ▪ to improve the teaching of JSE; and ▪ to strengthen the management capacity at all levels of the education system.
	Secondary Education	1990-1997/ closed	National	WB/Secondary Education and Management Project $154.2m	▪ To upgrade teachers in science, mathematics, English, Bahasa Indonesia and social sciences; ▪ to improve sustainability of quality improvements and provision of permanent budget support; ▪ to supply the needed curriculum as well as student and teacher material; and ▪ to assist with the development of an environmental studies program for secondary education.
	Junior Secondary	1997-2003/ active	National	ADB/Second Junior Secondary Education Project $300m	▪ To support the Government's efforts to provide quality JSE to all eligible children at the earliest date and at the lowest total cost in the five provinces of South Kalimantan, North Sulawesi, Central Sulawesi, and Southeast Sulawesi.
	Private Junior Secondary Education	1995		ADB/Private junior Secondary Education $49m	▪ To develop teaching and supporting staff; ▪ to improve facilities; ▪ to provide financial support to students; and ▪ to improve sector management.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Kazakhstan	Education Rehabilitation and Management	1995-2000/ active	National	ADB/ Education Rehabilitation and Management Improvement $20m	▪ To provide the Government with urgently needed support for rehabilitating and strengthening the education system in line with the needs of the economic transition; ▪ to provide key comprehensive schools (which offer primary and secondary education) with priority equipment, textbooks and instructional materials; ▪ to improve management and staff development in the Ministry of Education and the education system; and ▪ to establish a computerized educational management information system.
Lao People's Democratic Republic	Education Development	1993-2000	National	WB/Education Development Project $19m	▪ To develop and implement new curricula, instructional materials and pedagogical support systems in primary and lower secondary education; ▪ to lay the foundation for a sustainable construction program for primary and lower secondary schools; ▪ to establish systems of data collection and analysis to support sector management and strategic planning; and ▪ to strengthen institutional capacities in educational administrative and management at the central and local levels.
	Education Development	2000-2004/ active	National	WB/Education Development Project II $12m	▪ To achieve a set of basic standards for lower secondary education; and ▪ to achieve immediate improvement to the quality of

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Lao People's Democratic Republic (continued)	Education Development (continued)				existing upper secondary education and the framework for medium term development of the sub-sector.
Malaysia	Smart School Initiatives		National	The Ministry of Education/ Smart Learning and Smart Teaching	▪ To create a teaching-learning environment that: • makes learning interesting, motivating, stimulating, meaningful; • has total pupil involvement; and • prepares pupils to meet greater challenges and caters for varied range and needs among pupils.
Maldives	Education and Training	1995-2000	National	WB/Education and Training II $13.4m	▪ To improve primary and secondary education quality, targeting opportunities for the poor, and providing better access; ▪ to reduce the shortage of teachers; ▪ to focus on greater female participation; and ▪ to upgrade staff at the health, vocational, management and teacher training institutions.
	Education and Training	2000-2005/ active	National	WB/Education and Training Project III $17.6m	▪ To improve educational quality by raising learning achievements at the primary, lower and upper secondary levels; ▪ to increase equitable access through the expansion of secondary education; ▪ to improve institutional strengthening through the planning and implementation of educational programs; and ▪ to provide for the training for selected professionals.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Mongolia	Education development	1998-2000	National	ADB/Second Education Development $550,000	▪ To build institutional capacity of the Ministry of Science, Technology, Education and Culture; ▪ to improve the quality and coverage of basic, non-formal and secondary education; ▪ to establish a market-driven Technical Education and Vocational Training; and ▪ to strengthen the Science and Technology capacity at the tertiary level.
Philippines	Curricular reforms	1985-1999/ closed	National	IBRD/Program for Decentralized Education (PRODED)/ Secondary Education Development Program (SEDP)	▪ To develop higher critical and, logical thinking skills, communication skills, values development and/or general manual skills for higher education or the world of work.
	Vocational training	1992-1999/ closed	National	WB/Vocational Training Project $36m	▪ To strengthen institutional capabilities in policy formation, planning, and management of non-formal vocational training and employment service; ▪ to improve training standards by strengthening training support services and developing mechanisms to increase cost sharing and cost recovery for training; and ▪ to improve facilities and programs for non-formal vocational education.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Philippines (continued)	Secondary education	1998-2006/ active	National	ADB/ Secondary Education Development and Improvement Project $53m	▪ To improve the quality of public secondary education as well as access to such education in provinces with low rates of enrollment and completion and weak student achievement level; ▪ to provide training with school heads in planning and management and with teachers in subject knowledge and teaching skills; and ▪ to facilitate the decentralization of secondary education management – encouraging school autonomy.
	Curriculum (Science)		National	Japan Bank for International Cooperation (formerly JICA)/ Science and Mathematics Education Manpower Development Program (SMEMDP)	▪ To advocate the Practical Work Approach (PWA) in the teaching of science and mathematics; and ▪ to focus on the training of elementary and secondary teachers on PWA and the development of appropriate instructional materials.
	Curriculum (Science & Mathematics)		National	Australian Agency for International Development (AusAID)/ Project in Basic Education (PROBE)	▪ To support the improvement of instruction in science and mathematics; ▪ to aim at the creation of teacher support units for both pre-service and in-service teacher training; and ▪ to aim at the development of curriculum and teacher support materials.
Thailand	Secondary Education Goals and Aims	2000	National	Government/ Secondary education goals and aims	▪ To help learners discover their own abilities, aptitudes and interests; ▪ to provide a general education as

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Thailand (continued)	Secondary Education Goals and Aims (continued)				the basis for securing honest occupations or further education; and ▪ to respond to the needs of localities and the nation.
	Secondary Education Quality Improvement	1996-2002/ active	National	WB/Secondary Education Quality Improvement Project $81.9m	▪ To raise the qualifications of teaching staff in selected Rajabhat Institute (Ris) (teacher' college) and enhance their understanding of modern teacher education techniques; ▪ to reinforce quality improvement in the Ris through modernizing science laboratories and workshops with up-to-date equipment, expanding laboratory space and refurbishing workshops; ▪ to expand the capacity of the Ris to carry out in-service training of secondary teachers; and ▪ to enhance the Ris capacity to undertake research and provide technical services to the community.
	Non-formal Secondary Education	1999	National	ADB/Non-formal Secondary Education $150,000	▪ To expand and enhance the quality and relevance of non-formal secondary education with the view of upgrading the educational attainment of the Thai labor force.
	The National Education Act 1999	1999-2002	National	Government	▪ To decentralize education in Thailand; ▪ to extend compulsory education from 6 years to 9 years; ▪ to promote the right of all Thai citizens to pursue free education from year 1 through to year 12 year with equal quality; and

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Thailand (continued)	The National Education Act 1999 (continued)				▪ to include Science education for all citizens as part of this free, basic education.
Viet Nam	Junior Secondary Education Innovation	1999-2004/ active	National	The National Board/Junior Secondary Education Curriculum Development	▪ To incorporate new ideas and trends relating to the organization and mechanism s utilized in the curriculum development process; ▪ to increase efforts to raise scientific level and update subject contents; ▪ to include medical and population education and environmental protection in curriculum contents; and ▪ to adopt a systematic approach to raising teacher's skills and abilities in subject content and teaching methods.
	Teacher Training	1999-2006/ active	National	ADB/Teacher Training Project $25m	▪ To assist the Government in improving the quality and efficiency of the lower secondary education subsector by improving the preservice teacher training system for lower secondary education in terms of quality, access, and institutional capacity.
	Lower Secondary Education Development	1995	National	ADB/Lower Secondary Education Development $50m	▪ To improve quality by implementing curriculum reform and in-service teacher training; ▪ to increase physical access to schools in ten provinces by rehabilitating and expanding schools; and ▪ to increase institutional strengthening.

Secondary education projects and reforms in Asia-Pacific in the 1990s (continued)

Country	Type/Focus	Period	Scope	Institutions Involved/ Title/Funding	Purpose/Rationale
Viet Nam (continued)	Secondary Education Development	1995	National	ADB/ Secondary Education Development $50m	▪ To improve the quality relevance of secondary general education and technical/vocational education and training (TVET); ▪ to strengthen the management of secondary education; and ▪ to rehabilitate existing infrastructure and augment capacity of secondary general education in seven provinces.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Albania	Comprehensive	1992-2004	National	Ministry of Education and Science (Albania), the World Bank/ The Education Reform Project/ World Bank	▪ Innovations in curricula and the definition and introduction of new regulations in the domains of foreign language study, school management, school year, evaluation of teachers' performance. ▪ The rationalization and reduction of curricula in order to provide greater prospects for the teaching process and to enhance efficiency.
	Vocational education and training	1996-1998	National	PHARE (EU)/ Vocational education and training program/ ECU 1.5 million	▪ Strengthen and develop vocational education, both in terms of its organizational structures and its pedagogic effectiveness, and generate activities to foster the development of vocational education in line with European Community standards and best practice. ▪ Emphasis is also on providing appropriate support measures for the institutional reorganization of vocational education.
Armenia	Education Financing & Management	1997-2002	National	Education Financing & Management Reform Project/ World Bank/ USD$M: 15	▪ Improving the quality of general education by promoting school-level initiatives, by increasing opportunities and incentives for innovation throughout the system, and by improving the supply of textbooks and teaching materials. ▪ Helping build the necessary institutional framework and capacity at all levels to operate the basic education system efficiently, equitably, and sustainably.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Bosnia Herzegovina	Education Financing & Management; quality of education; student evaluation	2000-2004	National	Education Development Project/World Bank/USD$M:10.6. Note: A First Emergency Education Reconstruction Project (US$32 million) was approved in May 1996. The first project was successfully completed, and the Second Emergency Education Reconstruction Project (US$11 million) is now under implementation.	▪ The Education Development Project will improve teaching and learning processes in Bosnia and Herzegovina, therefore improving the quality of education and promoting equitable use, and the coordination of public resources to build a professional basis for the education system.
	Vocational Education and Training	1997		EU PHARE/ Vocational Education and Training Program The program was implemented by the European Commission on behalf of the national authorities, in coordination with the European Training Foundation.	▪ The broad objective of the program is to reform vocational education and training, both to ensure more relevance with the changing demands of the economic reform process and to promote reconciliation among the different communities in Bosnia and Herzegovina. The development of an adequate institutional framework for the sector is also helping to encourage the free movement of workers and students throughout the state as a whole.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Bosnia Herzegovina (continued)	Vocational Education and Training (continued)				▪ The immediate objectives of the program are to: strengthen institutions and reinforce human resources capabilities within the vocational education and training sector; assist curricula development, teacher training and the development of partnerships with vocational schools and enterprises in the European Union; develop training measures to help reintegrate refugees, displaced people and other special groups.
Bulgaria	Long-term comprehensive reform (education and training quality; curricula; management of the educational system, etc.)	1998-	National	Ministry of Education, Science and Technology; the World Bank; the EU PHARE Program: EU Phare; the Council of Europe; the Open Society Foundation; UNESCO/ Education Modernization Project	▪ Enhancing education and training quality; changes in the system management; elaborating basic legal documents providing for the development and management of the educational system; the state quality standards development; changes within the general comprehensive curriculum leading to early foreign languages teaching expansion, as well as information technologies integration in the study process.
	Vocational education and training	1995-1998		Ministry of Education, Science and Technology, Bulgaria, EU Phare	▪ Achieving better mobility and adaptability of the trainees for the labor market; working-out of the new Law on

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Bulgaria (continued)	Vocational education and training (continued)				Vocational Education and Training, in order to approximate the Bulgarian legislation with that of the European Union; decentralization and democratization of the system; creation of preconditions for long-life learning and qualification up-grading
	Educational evaluation, accreditation, textbooks	1996-1998	National	EU Phare/ Educational development program	▪ Creating educational norms and standards, which can satisfy the needs of the emerging market economy quickly and flexibly.
The Czech Republic	Comprehensive	1999-2002	National	All national educational institutions are involved.	▪ General Objectives: To develop educational opportunities and provide equal access to education; to introduce conceptual changes in the content of education as well as the nature of the school; to introduce changes in the structure of the system; to make changes in the position of teachers and in the financing of education. ▪ Vocational education: On 1 January 1998 the Standard of Vocational Education and Training came into effect as a first step towards reform of the current system. It comprises three parts: general education – common subjects relating to the social-

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
The Czech Republic (continued)	Comprehensive (continued)				cultural function of education; key competencies; and basic technical education. This will be complemented by the new professional standards in individual study fields.
	Teacher education and in-service training	1998	National	Career Development of the Educational Staff Project	▪ That project is a part of a larger project 'Teacher', involving the teacher education and in-service training. ▪ The implementation of this project will have an impact on the salaries of teachers in relation to their qualifications.
	Examinations	1996	National	The Maturant Program	▪ The program aims to prepare a new concept of the final upper secondary examination within the year 2001.
Estonia	Comprehensive	1998-	National	All national educational institutions are involved	▪ Improving: the administration of the educational system; the quality of education and training – program development and implementation; the teacher/trainer training system. ▪ Development of the national examinations system and the qualifications and diplomas recognition system; adopting new funding principles.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Estonia (continued)	Comprehensive (continued)				▪ Delegating the decision-making power and responsibilities from the state level to the lower levels; integrating the education of non-Estonian speaking population into a single Estonian educational system; implementing the new common national program in both the Estonian and Russian language speaking schools.
	Vocational education and training	1997	National	EU Phare; Ministry of Education and Culture, Estonia/ Program for vocational education and training reform, 1997	▪ Bringing the vocational education and training into accordance with labor market requirements; curriculum development; teacher training; partnerships with vocational schools in the European Union; and upgrading teaching equipment.
Hungary	Comprehensive; Public Education		National	National education institutions; public foundations; community support; the World Bank	▪ General Objectives: reform in the financial system; the teacher- and in-service training; the educational administration; the educational professional guidance services; human resources development (the school-system; the professional training of employees; training schemes for the unemployed). The

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Hungary (continued)	Comprehensive; Public Education (continued)				support structures have to be shaped in such ways that consider the procedures of the EU's own support-framework. Educational planning and implementation must be based on the specific characteristics of the different counties and regions of the country. ▪ Specific Objectives for Public Education: content development; improving social cohesion (equal opportunities); quality management (setting up monitoring, assessment and examination centers; supporting methods and procedures for self-evaluation at institutional level; normative financing (the extent of the state-grant may not be less than 80% of the current educational expenses); support for the extension of compulsory education (up to 18); and strengthening the 8+4 school structure.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
	Integration of disadvantaged students	1999-2004	National	EU Phare Ministry of Education, Hungary: Program on social integration of disadvantaged youth, with emphasis on the Roma	▪ Reduction of the primary school drop-out rate; secondary education with remedial/supportive schooling; and social promotion and integration of the Roma.
Latvia	Comprehensive	1998-	National	All national educational institutions are involved; World Bank: Education Improvement Project; European Union programs: SOCRATES, Leonardo da Vinci,	▪ Education programs for ethnic minorities (bi-lingual education); changes in the funding of education; education programs for all levels, types and target groups of education; national informatization and computerization programs; changes in the state program of
	Comprehensive (continued)			Youth for Europe.	teaching foreign languages and social sciences. ▪Vocational education: changes in the curricula and programs; emphasis on the role of social partners; new elements and structure of financing; regulations concerning teachers' qualifications; and teachers' salaries.
	Vocational education and training	1997-1999	National	EU Phare Ministry of Education and Science, Latvia/ Human resources development program	▪ Encouraging Latvian integration into the European Union in the field of vocational education and training (VET) and to continue VET reform. More specifically, the

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Latvia (continued)	Vocational education and training (continued)				program aims to carry out structural reform; develop curricula in new occupational fields; and relate training to labor market demands.
Lithuania	Vocational education and training	1997	National	EU Phare Ministry of Education and Science, Lithuania	▪ Curriculum development; Teacher training; Partnerships with vocational schools in the European Union; Upgrading teaching equipment.
Macedonia (the Former Yugoslav Republic)	Comprehensive	1997-	National	All national educational institutions are involved; World Bank/ Education Rehabilitation Project	▪ Improving the learning environment in high poverty and predominantly rural areas; improving the quality of educational inputs; strengthening the Education and Physical Culture Ministry's capacity to carry out teacher training, student assessment and curriculum development.
Moldova	Primary and lower secondary education	1997-2003	National	World Bank/General Education Project/ USD$M:16.8	▪ The General Education Project aims at supporting the first phase of Moldova's education sector reforms, focusing on mandatory general education. The project's key objective is to modernize and improve the quality of primary and lower secondary education. Its four

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Moldova (continued)	Primary and lower secondary education (continued)				components consist of curriculum development, textbook production and financing, learning assessment, and in-service teacher training.
Poland	Comprehensive; Educational administration; structural organization of the education system; curricula	1998-2004	National	All national educational institutions are involved; European Union programs: PHARE, SOCRATES, Leonardo da Vinci, Youth for Europe.	▪ General objectives: Increasing participation in secondary schools, equal opportunities in access to education in towns and rural areas, better integration of knowledge, skills and moral education. ▪ Changes in educational administration: local self-governing authorities at the level of communes or districts will be responsible for kindergartens, primary schools and secondary schools; administrative and pedagogical supervision are becoming separated – the latter being carried out by regional educational authorities (kuratoria). Reformed structure of the education system: 6+3+3 structure (2 year vocational school); a new system of pupil assessment to better enable evaluation and monitoring of the quality of schoolwork.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Poland (continued)	Comprehensive; Educational administration; structural organization of the education system; curricula (continued)				▪ New core curricula have been developed for all school types and cover 80% of the activities included in the timetable, while the remaining 20% are flexible timetable, left to the schools' own discretion.
Romania	Comprehensive	The reform process has begun in 1990, but a total overhaul of the education system was initiated in 1998.	National	All national educational institutions are involved; World Bank/ Education Reform Project/ USD$M:50 European Union programs: PHARE, SOCRATES, Leonardo da Vinci, Youth for Europe.	▪ Curricular reform, with a basic stress on the reform of teaching plans, programs of disciplines, and the design of original textbooks; a new structure of the school year and the reform of the methodology of knowledge evaluation; the setting up of institutional evaluation; the training of trainers; the development of professional standards; the restructuring of school network; high schools are to be connected to the RODUNET. ▪ Vocational education: the expansion of vocational schools; establishment of a new relationship between vocational schools and their economic and administrative environments; the acquisitions of the PHARE-VET program will be generalized.

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Romania (continued)	Infrastructure	1997-2003	National	World Bank/School Rehabilitation Project/USD$M: 70	▪ This project supports Romania's efforts to rehabilitate schools up to the safety standards and pedagogic norms established by the Ministry of Education in accordance with the Education Reform Project. The objectives of the project are to: 1) restore school buildings in imminent danger of collapse, and mitigate the educational disadvantages to students occupying such schools; and 2) improve the Ministry of Education's institutional capacity at the national and district levels to plan, develop, and maintain the public educational physical plant.
Slovakia	Comprehensive	The substance of reforms has been carried out immediately after the political transformation (1990)	National	All national educational institutions are involved; European Union programs: PHARE, SOCRATES, Leonardo da Vinci, Youth for Europe.	▪ Developing informatization and its use in teaching process; evaluating types of education at the levels 3, 4, and 5 to be in agreement with EU countries; adopting new educational policy and laws: Act on funding primary, secondary schools and educational establishments; Policy of education and instruction (for the next 15-20 years); Education Act, etc.; harmonizing

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Slovakia (continued)	Comprehensive (continued)				the curricula of all types of schools to those of EU countries; continuing the development of alternative schools; new curriculum development and a reorganization of studies; changes to the structure of the secondary education (1998); the network of secondary grammar schools has expanded.
	Vocational education and training	1994-1999	National	EU Phare Ministry of Education and Science, Slovakia	▪ Improving the access of graduates to available jobs on the labor market; emphasis on the rational utilization of human, material and technical resources (in order to achieve this, Slovakia launched a pilot project of a joint secondary vocational school – organizational merger of a secondary school, center for apprentices and a center for practical training into one institution); new integrated courses of study are being prepared and implemented; expanding the international co-operation in this field (see projects).

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Slovakia (continued)	Civic education	1994-	National	Human Rights at School Project (National Endowment for Democracy - USA; Open Society Fund). Orientation Ethics and Civics Project (Comenius University, Slovakia; Faculty of Education, Bratislava; Municipal Department of Secondary Schools)	▪ To provide primary and secondary school teachers and inspectors with basic information on human rights issues and methods of its teaching; to encourage teachers and inspectors to develop both independent thinking and new attitudes towards pupils, changing the authoritarian atmosphere in schools. ▪ Assessment of the teaching of ethics and civics in primary and secondary schools in Slovakia in four basic subjects: mother tongue, history, geography, and civics.
Slovenia	Comprehensive	1995-2004	National	All national educational institutions are involved; European Union programs: PHARE, SOCRATES, Leonardo da Vinci, Youth for Europe.	▪ A great variety of provision in vocational education and training (new private schools, dual system of middle vocational education and new types of post-secondary vocational colleges) and new structures of vocational education. ▪ The renewal of upper secondary general education: the reintroduction of gymnasia; the introduction of the externally controlled national school leaving

Secondary education projects and reforms in Central and Eastern Europe in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Slovenia (continued)	Comprehensive (continued)				examination (matura). ▪ More integrated forms of special education.
	Vocational education and training	1994-1997	National	EU Phare, Ministry of Education and Sport, Slovenia.	▪ Curriculum development; teacher training; partnerships with vocational schools in the European Union; and upgrading teaching equipment.

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Secondary education projects and reforms in Latin America and the Caribbean in the 1990s

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Latin America and the Caribbean	Student Evaluation	1994- active	Regional	Laboratorio Latinoam. de Evaluación de la Calidad de la Educ. UNESCO/OREALC-IDB-Ford F. 15 countries involved (Argentina, Brazil, Chile, Colombia, Cuba and others)	▪ To provide technical assistance for the development and coordination of national evaluation systems; and ▪ to conduct studies about the quality of education and factors affecting student achievement.
Central America	Distance Education	1996-1999 active	Regional	Telesecundaria Technical support: Government of Mexico. Funding: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama	▪ To improve access for students in rural and marginal urban areas.
Argentina	Structure, curriculum, teacher training, management, student evaluation	1992- active	National	World Bank-IDB	▪ To improve quality, efficiency and equity; ▪ to develop human skills for economic international competition; ▪ to transfer of national secondary schools to provinces; ▪ to increase of compulsory education to 10 years, after which a 3-year Polimodal offers different orientations; and ▪ to introduce a new curriculum structure with national curricular guidelines, provincial designs and school projects.
Argentina - Province of Buenos Aires	General and technical education. Management, teacher training	1998	Provincial	WB	▪ To increase access, improve quality, and facilitate entrance in the labor market.

Secondary education projects and reforms in Latin America and the Caribbean in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Bahamas	General and vocational education. Curriculum, teaching methods, management, information systems	active	National	IDB	▪ To improve quality and efficiency; ▪ to rationalize school infrastructure use; and • to develop of computerized systems.
Barbados	Curriculum, teaching methods, teacher and administrator training, technology	1993- active	National	IDB	▪ To improve quality, effectiveness and relevance; and ▪ to create "media centers" in each classrooms and to introduce computers for administrative and pedagogic use at schools.
Bolivia	Curriculum, management (community participation), information systems	1994- active	National	WB-IDB-Germany-The Netherlands-Sweden	▪ To improve access, quality, efficiency and equity; and ▪ to implement 20-year comprehensive plan including increasing compulsory education to 8 years.
Brazil	Curriculum, management, teacher training, student evaluation, information systems	1996- active	National	IDB	▪ To increase access and efficiency, improve relevance and quality; ▪ to produce and implement a national curriculum; and ▪ to decentralize management to schools.
Brazil	Technical and vocational education. Curriculum, management, teacher training		State level with national guidelines	IDB	▪ To implement general reform including secondary and non-university post-secondary education.

Secondary education projects and reforms in Latin America and the Caribbean in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Chile	Curriculum, teacher training, management, student evaluation	1995-active	National	WB	▪ To improve quality and equity.
Colombia	Financing, management, information systems, student evaluation, teacher training, technical education	1994-active	National	WB-IDB	▪ To improve quality and efficiency.
Colombia	Financing	1994	National	Voucher Program WB	▪ To improve access for disadvantaged students; and ▪ to provide vouchers that allow students from low-income families attend private schools.
Costa Rica	Curriculum, foreign language		National	IDB	▪ To improve access and quality; ▪ to design a national basic curriculum; • to create experimental bilingual schools; and • to improve access in rural areas through new buildings.
Dominican Republic		2000	National	Multiphase Program for Modernization of Secondary Education IDB	
Ecuador	Management			Rural autonomous school network program IDB	▪ To improve access and quality.

Secondary education projects and reforms in Latin America and the Caribbean in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
El Salvador	Curriculum, management, student evaluation		National	WB-IDB	▪ To improve access, quality and efficiency; and ▪ to train workers who can increase the country's competitiveness in the global market.
Guatemala	Distance Education		National	Telesecundaria	
Guyana	Curriculum, management.	1995- active	National	WB-International Development Association	▪ To improve relevance, quality, equity and efficiency.
Honduras			National	Basic and Middle School Education Program IDB	
Honduras	Distance Education	1995-2004	National	Education for All USAID	▪ To expand access to basic education (including lower secondary) and vocational training, especially for out-of school youth and young adults.
Jamaica	Curriculum, teacher training, evaluation, technology. Technical and vocational education	1993	National	WB	
Mexico	Curriculum	1989-94	National		▪ To improve relevance and quality; and • to integrate contents of primary with secondary education.
Mexico	Technical education. Management, curriculum, instructor training	1994	National	WB	▪ To increase access and quality of technical education, respond to needs of labor market; and ▪ to implement general reform of technical education that includes upper secondary.

Secondary education projects and reforms in Latin America and the Caribbean in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Nicaragua	Management, curriculum, financing, evaluation	1993-active	National	Centros Autónomos (Autonomous Schools)	
Panama	Management, teacher training, information systems, distance learning		National	WB	▪ To improve access to lower secondary education for children in rural and poor urban areas.
Paraguay	Structure, curriculum, teacher and administrator training, student evaluation, information systems, management	1992	National	WB	▪ To improve access and quality.
Peru	Structure, curriculum, teacher training, management, vocational training	1993	National	IDB-Spain (?)	▪ To improve quality, relevance, and linkage to labor market.
Trinidad and Tobago			National	Secondary Education Modernization Program - IDB	
Uruguay	Curriculum, teacher training, management, student evaluation	1996	National	IDB	▪ To improve quality, efficiency and equity.

Secondary education projects and reforms in Latin America and the Caribbean in the 1990s (continued)

Country	Focus	Period	Scope	Institutions involved/ Title/Funding	Purpose/Rationale
Uruguay	Technical education - curriculum, management	1993	National	IDB	▪ To respond to labor market requirements and improve quality.
Venezuela	Curriculum, technology, teacher training		National		▪ To improve access, relevance, linkages to labor market.

ANNEX D: REFERENCES FOR TABLES

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