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Principles and general objectives of education

Within the framework of the Strategic Vision 2025, adopted in 2002, Yemen's aspiration is to improve the level of human development and to become among the countries with middle human development that reflects higher standards of living and decent lives for individuals and the society at large. Human development aims to build human capital, and raise their standards of living, economically, intellectually and culturally, by means of formation of productive human capacities and broadening the available options for enabling the society, as a whole and individually, to have access to a source of livelihood. It should also lead to the realization of a suitable and decent life, and to participation in political, economic and social decision making, under a system, in which security and stability are prevalent, and under social justice that ensures freedom and equity and an environment that is optimally exploited to ensure that resources are conserved and renewable. Cultural learning opportunities should be provided to support good civic attitudes, tolerance, cooperation, altruistic behavior and national pride. The cultural dimension of development should be given special attention, while substantiating it through encouraging people's participation and raising awareness as integral factors of sustainable development.

Yemen's Strategic Vision 2025, in its social development path, aims at preparing a productive individual while upgrading his living, intellectual and cultural standards, as he/she represents the goal and the means of comprehensive development. To achieve this goal, emphasis should be directed to building human capacities and expanding available choices, in addition to involving communities and individuals in political, economic and social decision making. Also, security and stability should prevail, a justice system that guarantees freedoms and equality and a natural environment that maintains its sources and renewability need to be created.

The Vision 2025 envisages generalizing basic education and enacting a structural change in the education system to enable the sector to match the technical and scientific developments and to be more responsive to future development needs. At the same time, the general education strategy and the girls' education strategy aim at ensuring the provision of education for all girls and especially in rural areas that will bridge the gender gap in education, in addition to upgrading the quality of education.

Laws and other basic regulations concerning education

The **General Law of Education No. 45** of 1992 stipulates that education is a basic human right ensured by the State and provided to all people (Article 6). Article 8 specifies that education is free at all stages and is ensured by the State. The State realizes this principle gradually according to a plan approved by the Council of Ministers. Article 9 indicates that the State acts to realize social equality and equitable opportunity in education and takes into consideration the social and economic



circumstances that may prevent some families from sending their children to school. (UNESCO, 2008).

According to the **Ministry of Education Decree No. 37** of 1998, the eligibility criteria for a teacher are to: be more than 18 years old; have an educational qualification not less than a (two-year) post-secondary diploma from a Teacher Training Institute; and pass the entrance examination for the required job through competition.

The **Child Law** of 2002 guarantees government support to the mentally and physically handicapped. Article 118 stipulates that the Ministry of Education shall establish additional classes in regular schools to teach special needs students. (Republic of Yemen & World Bank, 2010).

The **Teacher Law** was promulgated and implemented in 1998. This Law gives teachers financial and moral privileges compared to their counterparts working in the other government sectors.

The **Prime Minister Act No. 68** of 2000 established the Supreme Council for Women Affairs headed by the Prime Minister.

The **Law No. 13** of 2005 regulates the establishment of private higher education institutions in the country.

The **Presidential Decree No. 210** of September 2009 was issued to establish the Council for Quality Assurance and Accreditation in Higher Education.

Article 54 of the **Constitution** amended in 2001 stipulates that education is a right for all citizens. The State shall guarantee education in accordance with the law through building various schools and cultural and educational institutions. Basic education is obligatory. The State shall do its best to eliminate illiteracy and give special care to expanding technical and vocational education. The State shall give special attention to young people and protect them against perversions, provide them with religious, mental and physical education, and the appropriate environment to develop their aptitude in all fields.

Administration and management of the education system

The **Ministry of Education** (MOE) supervises pre-primary, basic and general secondary education. The Ministry also oversees literacy initiatives under the mandate of the **Literacy and Adult Education Organization**. In 2008, the Inclusive Education Directorate (established within MOE in 1997) was working with 12,000 special needs students in 110 schools across 15 governorates. These programmes usually include children with physical and mental disabilities, learning difficulties, chronic health problems, from marginalized communities, African-descended *Akhdam*s, working children, and street children. The Directorate facilitates suitable schooling environments in terms of buildings, trained teachers and social workers, teaching methods and teaching aids, resource rooms, libraries, and furniture. Where appropriate to ensure integration and equal opportunities, the MOE establishes



additional classes in regular schools to teach special needs students. The Directorate attempts to involve community members and groups and nongovernmental organizations whose work addresses special needs students. (Republic of Yemen & World Bank, 2010).

Technical and vocational education and training (TVET) at the post-basic and post-secondary level are under the supervision of the **Ministry of Technical Education and Vocational Training** (MTEVT), established in 2001. Within the Ministry, the General Directorate of Curricula and Educational Aids is in charge of preparing and developing TVET curricula and educational aids so as to meet the labor market and private sector requirements in accordance with the technical specifications as well as the national system of standards and job classification.

The **Ministry of Higher Education and Scientific Research** (MOHESR), re-established in 2001, is responsible for governance, strategic planning and direction of the higher education sector with the ultimate goal to secure the provision of higher education that is cost-effective and responds to the needs of society, the economy and the citizens of Yemen. The Decree No. 210 of September 2009 provides for the establishment of the **Council for Quality Assurance and Accreditation in Higher Education**, a semi-governmental body under MOHESR in charge of ensuring quality in both public and private higher education institutions. The Council is expected to help higher education institutions establish quality assurance systems, and it will hold higher education institutions accountable through accreditation.

Progressive decentralization of financing and administrative authority to the governorates and districts is part of Yemen's overall governance policy, and applies to education as much as to other sectors. Thus, **Governorate Education Offices** (GEOs), and **District Education Offices** (DEOs) ensure the administration and management of education at the province and local levels. The MOE has established a General Directorate for Community Participation in the central ministry, as well as Departments for Community Participation at the GEO and DEO levels to promote community participation through **Fathers' and Mothers' Councils**. Most schools have such councils. (Republic of Yemen & World Bank, 2010).

The funding for educational institutions is under the direct control and regulations of the **Ministry of Finance** and bypasses the education ministries. The staffing of educational institutions (and the ministries themselves) is under the direct control and regulations of the **Ministry of Civil Service**.

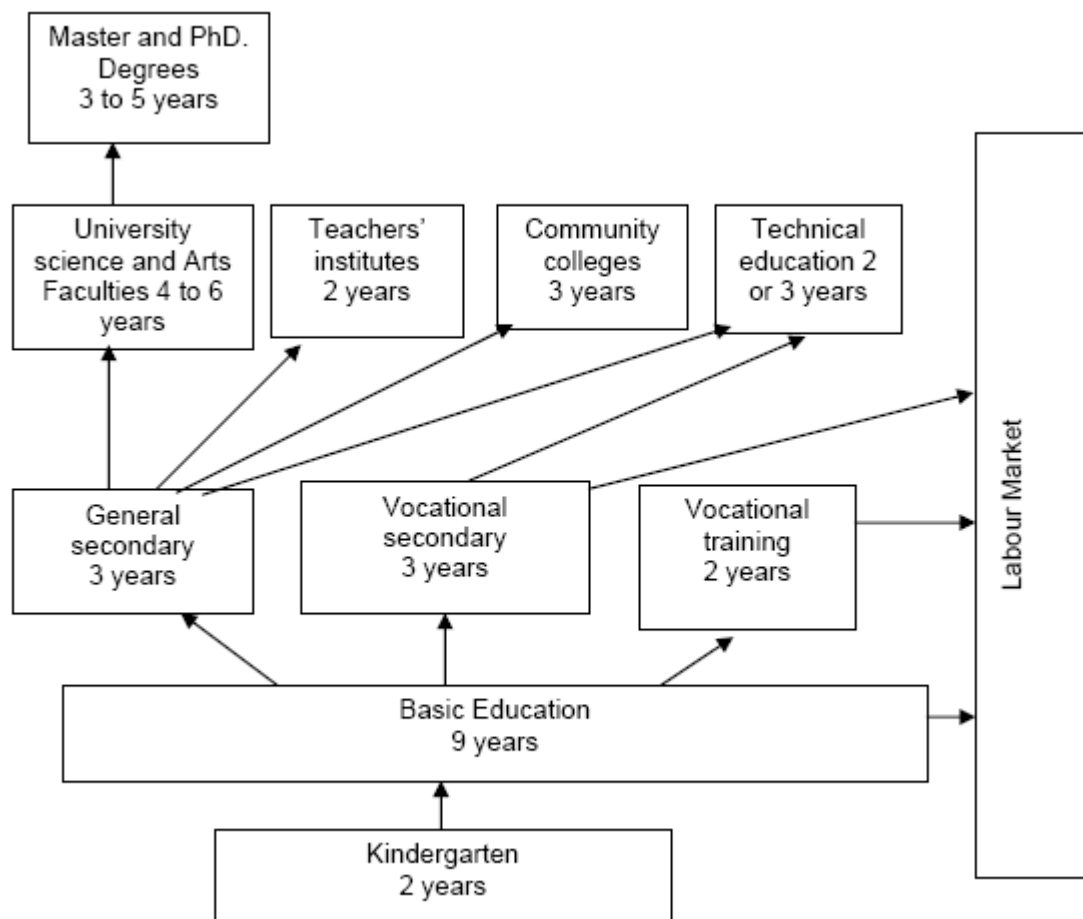
The **Higher Council for Motherhood and Childhood** is a central coordination body for the monitoring of all issues related to children. It actively follows up, coordinates and advocates on child development with various ministries and carries out studies and projects. Other high level coordination bodies include the **Supreme Council for Education Planning** and the **Supreme Council of Universities**.

The **National Women Committee** (NWC) was established in 1996 and transferred in the year 2000 under the Supreme Council for Women's Affairs headed by the Prime Minister. The NWC has consultative status with the Council of Ministers. The NWC has branches in all governorates with heads nominated by the

governor. The Committee monitors governmental policies in regard to women, carries out surveys and initiates campaigns for women rights.

Structure and organization of the education system

Yemen: structure of the education system



Source: World Bank.

Pre-school education

Preschool education is not compulsory and caters to children aged 3–6. Preschool education is organized into three sections: the small section for children of 3-4 years of age (nursery); the medium section for children age 4-5; and the large section for children age 5-6.

Primary education

The nine-year basic education programme is compulsory and free. The basic education programme was organized after the unification of the country (previously, North Yemen had a 6+3+3 system while South Yemen followed a 8+4 model). Basic education is organized into two cycles, a six-year primary education cycle (grades 1 to 6) and a three-year preparatory cycle (grades 7 to 9). Children are admitted from age



6. At the end of grade 9, students who pass the examination held at the governorate level receive the basic education certificate.

Secondary education

General secondary education lasts three years (grade 10 to 12). After the first year common for all students, and depending on their academic results, students can choose either the science or the humanities track. At the end of grade 12 students sit the examination and if successful receive the secondary education certificate. Vocational training centres and vocational institutes offer two- and three-year programmes to basic education graduates leading to the qualification of skilled worker. Technical institutes offer two- and three-year programmes at the post-secondary level leading to the qualification of technician.

Higher education

At the post-secondary level, the duration of programmes leading to an intermediate diploma, a technical diploma, a technician certificate and teacher's certificate (preschool and primary education teacher) is two years. Community colleges offer three-year programmes leading to an associate degree. At the university level, bachelor's degree programmes normally last four years (five years in the case of engineering; six years in the case of medicine). At the postgraduate level, the duration of programmes leading to a postgraduate diploma (higher, specialist, graduate or preparatory diploma) is usually one year. Master's degree programmes generally take two years to complete, and the duration of programmes leading to a doctorate is at least three to four years after the master's degree.

In 2003/04, the school year consisted of 206 days (or thirty-four working weeks) at all levels. Classes are held from Saturday to Thursday and the majority of schools have two shifts (in general, girls attend in the morning and boys in the afternoon). Evening classes are for literacy and adult education. The school year starts at the end of August or the beginning of September and extends until mid-June. There are several national and religious holidays. There is no vacation period between the two semesters.

The educational process

The general education curriculum has been changed twice since unification in 1990. An interim curriculum was first put in place following the unification of Yemen in 1990. The interim curriculum combined elements of the former North Yemen and South Yemen curricula. This temporary curriculum remained in place until 2000.

A new curriculum was designed and implemented for grades 1–6 in 2000, for grades 7–9 in 2001, for grades 10–11 in 2002, and for grade 12 in 2003. The current general education curriculum presents a solid basis for effective teaching and learning. The curriculum for grades 1–12 consists of a detailed set of documents that includes general curriculum principles and a syllabus for each subject. These documents start with the overall objectives of learning for each subject, and then break them down into detailed and clearly sequenced content, skills, and objectives



for each grade. Although the current curriculum is student centered and ‘discovery’ based, there is no system in place to support its implementation.

However, teachers are not trained in the student-centered methodology. Even though textbooks and teachers’ guides have been prepared to reflect the curriculum approach, they often are not available in schools, especially rural schools, until late in the school year. Even if the textbooks and teachers’ guides are available on time, they are known to contain a large number of factual errors, grammatical mistakes, and inaccurate and inappropriate practical exercises. In addition, the textbooks, teachers’ guides, and student workbooks often are mismatched. Most students do not have access to teaching and learning materials, libraries, or reference materials (at home or outside), particularly in rural areas. This reality renders the element of discovery impossible for most students.

The secondary school curriculum is viewed as theoretical and geared almost exclusively toward preparation for higher education. This view continues even though higher education institutions absorb only approximately one-third of the graduates of secondary education. The secondary school curriculum is lacking in life- or employment-related skills, IT skills, and problem-solving skills with which to prepare graduates for successfully entering the labor market. It also is worth noting that, although the curriculum has been changed, the curriculum framework has not changed since unification in 1990.

The technical education and vocational training (TEVT) curricula appear to be disconnected from the skills demanded by the private sector. The current policy adopts the competency-based approach for curriculum and programme development. This approach is designed to ensure a level of flexibility and adaptability of training outputs to match changing labor market requirements. Regional offices are able to readjust and develop curricula according to the specific needs of their catchment areas, with an upper limit on allowable changes equal to 20% of the content. In reality, most training courses, particularly degree-granting courses, are loaded with theoretical materials and bear little resemblance to conditions in the workplace. The level of employer participation in curricular design, development, and implementation is low. (Republic of Yemen & World Bank, 2010).

Pre-primary education

The General Law of Education of 1992 considers pre-primary as pre-basic education (Article 16). The law identified this stage as nursery until the age of 2 years, then kindergarten from 3 until the age of 6 years old. According to the law the kindergartens aim, is to making the children accustomed to loving education, and preparing them for the new phases of education, breeding noble values and good positive customs in them, and educating them to be medically and socially fit and to love cooperation with other children (Article 17). A department was established to take care and supervise this phase of education as part of the structure of the Ministry of Education. (UNESCO, 2008).

In 2005/06 there were 21,038 children enrolled in 358 kindergartens, of which 97.5% were located in urban areas. Most of the kindergartens (282 or 80.8%) were managed by the private sector. (UNESCO, 2008).



According to the Multiple Indicator Cluster Survey 2006, only 2.6% of children in the age range 36-59 months are attending preschool. The figure rises to 5.3% in urban areas, compared to 1.6% in rural areas. No gender differential exists, but differentials by socioeconomic status are evident. Of children living in the richest households 8.4% attend preschool, while no children living in the poorest households were reported to be attending preschool. (MHP & UNICEF, 2008).

For 2006/07, the total enrolment in (public) early childhood education was 22,025 children and the number of teachers was 1,457. In 2007/08, the gross enrolment ratio was estimated at 1.1%. (Republic of Yemen & World Bank, 2010).

For 2007/08, the Central Statistical Organization reports a total enrolment of 25,371 children (of whom 11,661 girls) in 445 public and private kindergartens with 1,468 teachers. There were 80 public kindergartens with 11,243 children enrolled and 635 teachers.

Basic education (primary and lower secondary education)

The nine-year basic education programme is compulsory and free. Basic education is organized into two cycles, a six-year primary education cycle (grades 1 to 6) and a three-year preparatory cycle (grades 7 to 9). Children are admitted from age 6. An automatic promotion policy is applied in grades 1 to 3. At the end of grade 9, students who pass the examination held at the governorate level receive the basic education certificate. Although entry to grade 1 is at the age of 6, only 20% of children begin school at this age. This low figure quite possibly is linked to children's poor nutritional status such that, especially in rural areas, they are considered too young to attend school even at ages 7 and 8. (Republic of Yemen & World Bank, 2010).

The weekly lesson timetable for basic education in 2004 is presented in the table below:

Yemen. Basic education: weekly lesson timetable

Subject	Number of weekly periods in each grade								
	1	2	3	4	5	6	7	8	9
Quran	5	5	5	4	4	4	3	3	3
Islamic education	3	3	3	4	4	4	4	4	4
Arabic language	10	10	10	10	9	9	6	6	6
English language	–	–	–	–	–	–	5	5	5
Mathematics	5	5	5	6	6	6	6	6	6
Science	2	2	2	3	3	3	4	4	4
Social studies	–	–	1	1	1	1	1	1	1
History	–	–	–	–	2	2	2	2	2
Geography	–	–	–	–	2	2	2	2	2
Physical education	2	2	2	2	2	2	1	1	1
Fine arts	2	2	2	2	2	2	1	1	1
Vocational education	–	–	–	–	1	1	1	1	1
Total weekly periods	29	29	30	32	36	36	36	36	36

Source: Information provided by the Gulf Arab States Educational Research Center (GASERC), November 2004. Each teaching period lasts 40 minutes.



Teachers give examinations during the semester and at the end of each semester, but most of the tests have little value for the intended purposes.

In principle, basic and secondary education textbooks and teacher guides are developed according to the curriculum. The current textbooks reflect the curriculum approach, which is interactive and student-centered. They are organized in units, which are subdivided into lessons. Teachers' guides accompany all textbooks, with (in most cases) detailed lesson plans, useful background information, statements of learning objectives, lists of materials required, evaluation activities, and additional remedial and extension activities. The key principles of the textbook policy are that (i) all textbooks are written and published by the MOE; (ii) all textbooks are provided to students free of charge; (iii) textbooks are designed as disposable (owned by students) for grades 1–3 and re-usable (owned by schools) for grades 4–12; and (iv) the General Corporation for School Books Printing Press, the Governorate Education Offices, and the District Education Offices all share the cost of distributing the books from the printing presses to the districts. The schools then have to pay the cost of distribution from district to school. Students' families make some contribution to the costs of textbook distribution. Reasonable quantities of textbooks are available to all schools, but efficient and timely delivery of textbooks to schools, particularly in rural areas, remains a major issue. The availability of other teaching and learning materials and facilities is seriously lacking, and there is great variation across schools. (Republic of Yemen & World Bank, 2010).

In 2005/06 there were 14,975 schools in the country. Out of these, 323 were secondary schools or 2.2% of the total number of schools. The rest were either basic education schools or combined basic and secondary education schools. A total of 12,670 schools or 84.6% of the total operating schools were located in buildings, 909 schools (or 6.1%), operated in houses or apartments, 475 (or 3.2%) operated in temporary buildings (hut, tent or thatch huts), 490 schools (3.3%) operated without a school building. The remaining 431 schools were closed on a permanent or temporary basis. Out of the total number of schools, 370 (or 2.5%) were managed by civil society organizations or the private sector. In the same year, the total number of basic and secondary education teachers was 189,792. The number of teachers working in basic education schools only and in basic-secondary schools was 183,102 or 96.5% of the total number of teachers; 6,690 teachers were teaching at the secondary education level only. Out of these, 42,301 teachers were female or 23.1% of the total basic and common basic-secondary teachers. Female teachers are concentrated in the urban areas and the major cities. Teachers who have secondary school qualification or less constitute a high percentage, their number reaches 79,905 or 42% of the total number of teachers. (UNESCO, 2008).

Many basic schools offer only up to grade 6. In 2007/08, 57% of basic schools had students enrolled up to the sixth grade only. This was particularly the case in rural areas in which the sixth grade was the highest grade with enrolments for 60% of basic schools, compared to 29% in urban areas. In the same year, 4,642 basic schools offered up to grade 6, 526 up to grade 7, 809 up to grade 8, and 3,698 schools offered complete basic education (grades 1-9). (Republic of Yemen & World Bank, 2010).

In 2005/06 the total enrolment in basic education was 3,971,853 students (of whom 1,607,779 were girls), representing an enrolment rate of 78.2% (64.1% for girls



and 89.1% for boys). In urban areas the difference between the participation of boys and girls is 7.8 points in favor of boys; this difference in participation of boys and girls in basic education rises in rural areas to 23.8 points in favor of boys. (UNESCO, 2008). In 2004, the survival rate to grade 5 was estimated at 68.7% (64.7% for girls and 75.5% for boys). Data indicate that the percentage of repetition at the basic education level reached 9.4% for both sexes (11.2% for girls and 8.2% for boys), and the sixth grade completion rate was estimated at 53.3%. (Ministry of Planning, 2010).

According to the Multiple Indicator Cluster Survey 2006, over two thirds (68.4%) of children of school age (6 to 14 years) were attending school in 2006. Boys of basic education age are more likely to be attending school than girls (76.1% versus 60.6%). Wider differentials exist between urban-rural residence, levels of mother's education and socioeconomic status; the indicator is as high as 90.5% for children whose mothers who have attended secondary school compared to 64.7% for children whose mother's do not have any education. Just under a quarter (23.5%) of 15-17-year-olds were attending basic education when they should be attending secondary school. Of all children starting grade 1, over three quarters of them (78.9%) will eventually reach grade 5. The ability to retain students is higher in urban areas than rural areas: in urban areas 91.1% of children will reach grade 5 compared to 73.1% of children attending school in rural areas. Children from richer households are also more likely to reach grade 5 compared to children from poorer households. In 2006, only 18.4% of the children of basic education school completion age (14 years) were attending the last grade (grade 9). This value should be distinguished from the gross completion ratio which includes children of any age attending the last grade of basic education. Over a third of 14 year olds from the richest households (37.3%) were attending the last grade of basic education compared to just 7.4% of 14-year-olds living in the poorest households. A little under two thirds of the children (65.8%) that successfully completed the last grade of the second stage of the basic education system were found at the moment the survey to be attending the first grade of secondary school. (MHP & UNICEF, 2008).

For 2007/08, the total enrolment in basic education was 4,190,719 students and the number of teachers (basic and secondary education teachers) was 199,101. In the same year, the gross enrolment ratio was estimated at 85.4% for grades 1-6 (94.5% for boy and 76% for girls) and 74.3% for basic education (84.5% for boys and 63.7% for girls). Overall, of the out-of-school children, girls constitute approximately 60% and the poor, 60%; 87% of out-of-school children live in rural areas. Repetition rates are high, particularly for boys. Repetition rates of boys in all grades are consistently above 5%. The rate peaks at 9% for boys in grade 12. Although repetition rates are lower for girls, they are still quite high at 4% or above. Similar to boys, girls' repetition rates increase to 7% in grade 12. Dropout rates similarly are high, especially for girls. The government has an automatic promotion policy in the first three grades. Nevertheless, the first grade dropout rates for both boys and girls (19% and 16%, respectively) are the highest of all twelve grades of general education. The first-grade dropout rate is followed by ninth grade (18% for boys and 16% for girls). In general, rural dropout rates are much higher than in urban areas. Girls' overall dropout rates are consistently above 10% between grades 3 and 7, lower in grade 8, and over 10% in grades 9 and 10. Dropout rates for both boys and girls tend to be negligible once students enter grade 11. Only 50% of those who enter grade 1 reach the last grade of basic education, and an even lower 38% reach the last grade of secondary education.

The survival pattern by gender shows that 68% of boys and 56% of girls who entered grade 1 reach grade 6 (63% for total). By grade 9, the survival rates are 57% for boys and 40% for girls (50% for total). (Republic of Yemen & World Bank, 2010).

Secondary education

As mentioned, general secondary education lasts three years (grade 10 to 12). After the first year common for all students, and depending on their academic results, students can choose either the science or the humanities track. By 2007/08, over 80% of students were enrolled in the science track; the main reason is that graduates from the science track are allowed to apply to more faculties than are graduates of the humanities track, who can apply only to humanities faculties (Republic of Yemen & World Bank, 2010). At the end of grade 12 students sit the examination and if successful receive the secondary education certificate. Vocational training centres and vocational institutes offer two- and three-year programmes to basic education graduates leading to the qualification of skilled worker. Technical institutes offer two- and three-year programmes at the post-secondary level leading to the qualification of technician.

The weekly lesson timetable for general secondary education in 2004 is shown in the table below:

Yemen. General secondary education: weekly lesson timetable

Subject	Number of weekly periods in each grade				
	10	11		12	
		Science	Arts	Science	Arts
Islamic education	6	5	7	5	6
Arabic language	6	6	8	6	8
English language	5	5	6	5	6
Mathematics	5	8	–	8	–
Statistics	–	–	2	–	2
Physics	2	4	–	4	–
Chemistry	2	3	–	3	–
Biology	3	3	–	3	–
History	2	–	3	–	3
Geography	2	–	3	–	4
Civics	1	–	–	–	–
Sociology	–	–	2	–	–
Economics	–	–	2	–	–
Psychology	–	–	–	–	2
Philosophy and logic	–	–	–	–	4
Physical education	1	1	2	1	1
Fine arts	1	1	1	1	–
Total weekly periods	36	36	36	36	36

Source: Information provided by the Gulf Arab States Educational Research Center (GASERC), November 2004. Each teaching period lasts approximately 45 minutes.



The majority (91%) of general secondary education schools operates as combined basic and secondary and these schools are concentrated in the rural areas. (UNESCO, 2008).

In 2005/06, a total of 44 vocational and technical centers, vocational institutes and technical institutes operated under the mandate of the Ministry of Technical Education and Vocational Training (MTEVT). In the same year, 11,389 students (of whom 790 were girls) were enrolled in two-year programmes with 2,023 teachers, and 3,486 students (of whom 183 were girls) were enrolled in three-year programmes with 1,851 teachers. (UNESCO, 2008). Low pass rates in the MOTEVT-administered TEVT examinations point to low learning achievement of TEVT students. The average pass rate for the various TEVT programmes in 2008 was 74% and varied from 63% for the three-year post-basic education programme to 82% for the post-secondary education programme. (Republic of Yemen & World Bank, 2010).

In 2005/06 the total enrolment in secondary education was 525,790 students (of whom 172,813 were girls), representing an enrolment rate of 39.6% (30% for girls and 64% for boys). In urban areas the difference between the participation of boys and girls is of 17.4 points in favor of boys; this difference in participation of boys and girls in secondary education rises to 49.6 points in favor of boys in rural areas. (UNESCO, 2008).

According to the Multiple Indicator Cluster Survey 2006, only 23.9% of children in the age range 15 to 17 years were attending secondary school. Girls in particular are less likely to attend secondary school compared to boys (18.1% versus 29.9%). Urban-rural residence also appears to be a significant factor in whether 15 to 17 year olds attend secondary education; in rural areas only 17.1% of children are attending falling to 8.4% for girls living in rural areas. However it is interesting to note that in urban areas a slightly higher proportion of girls were found to be attending secondary school compared to boys (38.9% versus 36.3%) indicating no comparative advantage for boys in urban areas. The differentials among mother's education and socioeconomic wealth reveal a strong positive correlation with secondary school attendance (MHP & UNICEF, 2008).

For 2007/08, the total enrolment in secondary education was 560,907 students. In 2006/07 the enrolment in post-basic technical education and vocational training (TEVT) was 9,881 students, and an additional 13,423 students were enrolled in post-secondary TEVT. In the same year, there were 2,635 TEVT teachers. The gross enrolment ratio in secondary education (grades 10-12) was estimated at 33.8% (43.3% for boys and 22.9% for girls). (Republic of Yemen & World Bank, 2010).

Assessing learning achievement nation-wide

The Monitoring Learning Achievement (MLA) survey conducted in Yemen in 2002 and again in 2005 included students in grades 4 and 6 and covered topics in mathematics, science, life skills, and Arabic. In the 2002 MLA, 3,324 grade 4 students and 2,817 grade 6 students were tested. These students were selected from 134 schools in 10 governorates selected randomly across the country. In the 2005 MLA, 3,313 students from grade 4 and 2,842 students from grade 6 were tested in the 2002 survey schools. Between 2002 and 2005, the average scores on the MLA tests



improved by approximately 10 percentage points in grade 4 and by approximately 5 percentage points in grade 6. These improvements occurred for boys and girls, and for students in urban and rural areas. The results seem to provide evidence that student learning outcomes in primary education improved over these three years. Nevertheless, the large increases may be too profound for such a short period, thus suggesting unreliable data, especially since international experience suggests that improvement in learning achievement is a very slow process. Girls outperformed boys in both the 2002 and the 2005 MLA surveys. Similarly, Yemeni girls outperformed Yemeni boys in both mathematics and science tests in TIMSS 2007. In fact, the difference between the scores of Yemeni boys and girls in TIMSS (22 points for mathematics and 21 points for science) was one of the largest seen among all countries that participated in the fourth-grade tests. (Republic of Yemen & World Bank, 2010).

Regarding international assessments, Yemen participated in the 2007 Trends in International Mathematics and Science Study (TIMSS), which measured the achievements of grade 4 students in mathematics and science. In the country, 5,811 students from 144 schools participated in the grade 4 mathematics and science tests. Yemen ranked the lowest in both the mathematics and science tests among all 36 countries that participated. Ninety-four percent of Yemeni students did not reach the internationally set 'low' performance benchmark for mathematics, and 92% did not reach the internationally set 'low' benchmark for science. However, Yemen was the only low-income country to participate in grade 4 TIMSS in 2007. For this reason, a direct comparison with other participating countries, which are significantly more economically advanced than Yemen, is not appropriate. The poor performance of Yemeni students in the TIMSS is partially attributed to their inability to read the test questions. Yemeni students did better in the questions that were either numerical or based on figures rather than text. Yemen also participated in TIMSS 2003, but, due to errors in the sampling methodology, the results are not available for analysis or for international comparison. (*Ibid.*).

Analysis of grades 4 and 6 of student achievement in four subject areas — life skills, science, mathematics, and Arabic language— shows that the majority of pupils have difficulties in relating what they have learned in the classroom to what they observe in their environment; in explaining and interpreting the meaning of a phenomena due to the lack experimentation in school; in mental calculation to estimate the resolution of problems; and in reading and interpreting tables and graphs. Since most students have limited reading and writing skills, they could not solve problems or answer questions on many of the tests. (UNESCO, 2008).

Teaching staff

Yemen's teacher force in general education is large, predominantly male, and mostly unqualified. In 2007/08, there were approximately 199,000 teachers in government basic and secondary schools, of whom 77% were male and 66% were in rural areas. The minimum educational qualification to become a teacher is a two-year post-secondary teaching diploma from a Teacher Training Institute. Almost 40% of the current pool of teachers are unqualified. Most of these unqualified teachers are found in rural schools (76%) and teaching in basic education (91%). In urban areas, 53% of teachers were female, compared to only 9% in rural areas. The gender disparity is



more pronounced at the secondary level: 28% of urban secondary school teachers were female (8% in rural secondary schools). (Republic of Yemen & World Bank, 2010).

The minimum education qualification set up in MOE Decree No. 37 of 1998 requires recruits to possess at least a post-secondary diploma. In practice, this decree is applied primarily to the recruitment of grade 1–6 teachers. University graduates are the preferred candidates for grade 7–12 teaching posts. Even so, only 35% of teachers who teach grades 1–6 hold post-secondary diplomas or higher qualifications. Furthermore, even though the decree allows exceptions to enable female teachers with fewer than the minimum qualifications to teach in rural areas, the proportion of ‘unqualified’ (teachers who do not meet the minimum qualification criteria according to the MOE Decree) is higher for male teachers than for female teachers. The MOE recruited the majority of the current teaching force during the 1990s, when the education system had expanded considerably. Because of the policy of nationalization of the civil service and the unavailability of adequate numbers of qualified Yemeni teachers, most of the 1990s MOE recruits were graduates of either Teacher Training Institutes (TTIs), that is, ‘qualified’; or secondary education, that is, ‘unqualified.’ A substantial proportion of new teachers, including males, do not have the minimum qualifications for civil service employment. Moreover, significant problems of deployment and inefficient use of teachers abound in the system, and the needs of rural and urban schools remain largely unmet. (*Ibid.*).

Although there will be an increased need for grade 1–6 teachers to achieve universal primary education, pre-service programmes at the Faculties of Education are not preparing teachers to teach these grades. Formerly, universities prepared subject specialist teachers for grades 7–12, and TTIs prepared teachers for grades 1–6. Due to the rapid expansion of higher education enrolment, the government closed TTIs in 2000, intending that all future teachers would be trained at the university level. However universities were not and still are not ready to respond to the implied policy change. While universities produce only subject specialists, just 15% of new teaching posts are for subject specialists. Forty percent of the posts are for class teachers, 40% for domain teachers (that is, those who can teach a group of subjects), and 5% for multiple subject specialists. Programmes offered at the Faculties of Education focus on the history and philosophy of teaching. They do not include practical elements and do not require students to teach in schools as a part of their pre-service training. In fact, linkages with schools that may encourage internships in real classrooms are not explored because they are not deemed necessary. Furthermore, the faculties of education do not use either the curriculum of the MOE or the textbooks, other learning materials, and teachers’ guides that are used in basic and secondary schools to familiarize graduates with the needs of their job. It should be noted that graduates from private higher education institutions are not eligible to apply for teaching positions, so this issue of the quality of pre-service training applies to public universities only. (*Ibid.*).

Since approximately 2003, the MOE has provided, through externally financed projects, a high level of in-service training to raise the country’s teaching skills. Annually, 50,000–100,000 teachers receive training through different sets of modules depending on the grades they teach. Teacher allocation patterns vary considerably across governorates and are not linked to the degree of geographic dispersion of the



population. Some governorates have abundant teaching resources (large number of teachers for the same number of students), and some have scarce resources. The distribution of teachers across schools is equally varied within governorates, with a greater element of unevenness in schools that have only early grades. The MOE has an ambitious programme to upgrade the skill of the current pool of teachers through massive in-service training programmes. However, these programmes are not linked to a qualification framework that recognizes the multitude of trainings attended by a teacher in the form of a diploma or university-equivalent degree. (*Ibid.*).

The Teacher Law of 1998 granted an increase for teacher's wages reaching to 110% of the basic salary at the utmost. This Law also incorporated numerous other moral privileges. In 2005, the new salary strategy was starting to be implemented by the government of Yemen, implying that the salary of the teachers would be higher than other government organizations employees with the same qualification. (UNESCO, 2008).

There are difficulties in deploying teachers, especially female teachers, to rural areas. The dearth of female teachers negatively affects girls' enrollment. In rural areas, only 8% of teachers are female, compared to 46 percent in urban areas. In a traditional society such as Yemen, parents are not comfortable sending girls to school if they are surrounded by only male teachers. (Republic of Yemen & World Bank, 2010).

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For updated links, consult the Web page of the International Bureau of Education of UNESCO: <http://www.ibe.unesco.org/links.htm>