

Education Sector Analysis

Afghanistan

DRAFT

Pouras Consult Aps.
January 2016

Contents

Contents.....	2
ESA Executive Summary	5
INTRODUCTION.....	5
SECTOR CONTEXT	5
THE SOCIAL, HUMANITARIAN AND DEMOGRAPHIC CONTEXTS	5
THE MACROECONOMIC AND PUBLIC FINANCE CONTEXTS	8
ACCESS	9
COST & FINANCING	14
QUALITY.....	16
CAPACITY & MANAGEMENT.....	17
SECTOR ORGANISATIONAL STRUCTURE	19
ECONOMIC IMPACT OF EDUCATION and LABOUR MARKET	21
SOCIAL IMPACT OF EDUCATION	22
EQUITY.....	24
Introduction.....	26
ABBREVIATIONS	27
CHAPTER 1.....	29
SECTION 1: THE SOCIAL, HUMANITARIAN AND DEMOGRAPHIC CONTEXTS.....	29
1.1. Population	29
1.2 Basic Social Indicators	30
Poverty - % below poverty line	30
Literacy.....	36
Infant mortality rate (IMR) and Under-five Mortality Rate (U5MR)	39
1.3 Impact of HIV/AIDS and Malaria on Education	41
Disability	42
1.4 The Composite Social Context Index.....	43
1.5 Linguistic and Religious Context.....	44
1.6 Humanitarian context.....	44
Conflict.....	44
Perception analyses of well-being.....	45
Birth Registration	46
Child Labour	47
SECTION 2: THE MACROECONOMIC AND PUBLIC FINANCE CONTEXTS	48
2.1 GDP and GDP per Capita Trends.....	48
2.2. Public Resources.....	50
2.3 Public Expenditure.....	52
2.4 Education Development Indices	53
2.5 Future Prospects	54
CHAPTER 2.....	58
SECTION 1: THE EVOLUTION OF ENROLMENT AND EDUCATION SYSTEM ENROLMENT CAPACITY	58
2.1.1 The Evolution of Enrolment.....	58
2.1.2 Evolution of Enrolment Capacity: Gross Enrolment Rate Computation.....	59
SECTION 2: SCHOOL COVERAGE: SCHOOLING PROFILES, SCHOOL LIFE EXPECTANCY	61
2.2.1 Schooling Profiles and Retention	61
2.2.2 School Life Expectancy (SLE).....	62
2.2.3 Education Pyramids	64
SECTION 3: THE SUPPLY AND DEMAND ISSUES ON ACCESS AND RETENTION	64
2.3.1 Access-Related Supply and Demand.....	64
2. 3.2 Retention-Related Supply and Demand	69

Dropouts.....	72
2. 3.3. Systemic bottlenecks: Quantifying the supply and demand issues related to transition to post secondary education.....	72
SECTION 4: INTERNAL EFFICIENCY.....	74
2.4.1 Repetition.....	74
2.4.2 Internal Efficiency Coefficient.....	76
SECTION 5: OUT-OF-SCHOOL CHILDREN.....	76
2.5.1 Estimation of the Share and Number of Out-of-School.....	76
2.5.2 Who are the Out-of-School Children?.....	77
CHAPTER 3.....	79
SECTION 1: PUBLIC EDUCATION EXPENDITURE.....	81
SECTION 2: PUBLIC EDUCATION RECURRENT UNIT COSTS.....	87
SECTION 3: HOUSEHOLD CONTRIBUTIONS TO EDUCATION.....	94
SECTION 4: THE COST OF SCHOOL INFRASTRUCTURE.....	96
CHAPTER 4.....	100
Introduction.....	100
SECTION 1: ASSESSMENT OF STUDENT LEARNING.....	100
4.1.1 National Examinations and Admissions Tests.....	100
4.1.2 National Learning Assessments.....	101
4.1.3 International Standardised Learning Assessments.....	102
4.1.4 Using Household Surveys and Literacy Levels as a Proxy Measure of Quality.....	103
SECTION 2: ANALYSIS OF SYSTEM CAPACITY.....	106
4.2.1 Evaluation of the Conversion of Resources into Results by Schools.....	106
4.2.2 Analysis of the Factors Associated with Learning Outcomes.....	106
4.2.3 The Analysis of Factors' Cost-Effectiveness.....	111
4.2.4 Institutional Analysis.....	112
SECTION 3: MANAGEMENT OF TEACHERS.....	114
4.3.1 Quantitative aspects of the management of teachers.....	114
4.3.2 Qualitative aspects of the management of teachers.....	115
SECTION 4: THE MANAGEMENT OF OTHER RESOURCES AND OF TEACHING TIME.....	120
4.4.1 Management of resources other than teachers.....	120
4.4.2 Monitoring Effective Teaching Time.....	122
CHAPTER 5.....	124
SECTION 1: THE ECONOMIC IMPACT OF EDUCATION.....	124
5.1.1 Description of the Labour Market.....	124
5.1.2 Labour Market Structure and Dynamics.....	126
5.1.3 Employability of Education System Leavers and Graduates.....	128
5.1.4 Economic Return of Different Education Levels.....	134
5.1.5 The Training-Employment Balance (Macro Approach).....	135
5.1.6 Anticipation of Future Labour Market Needs.....	136
SECTION 2: THE SOCIAL IMPACT OF EDUCATION.....	137
5.2.1. The Choice of Social Development Variables.....	137
5.2.2 Estimation of the Net Effects of Education.....	137
5.2.3 Consolidation of the Net Social Effect of Education.....	142
CHAPTER 6.....	145
SECTION 1: EQUITY IN ENROLMENT AND LEARNING ACHIEVEMENTS.....	145
6.1.1 The Absolute Gap in Performance between the Two Groups.....	145
6.1.2 The Parity Index.....	146
6.1.3 The Parity Line.....	148
6.1.4 Scatter Charts.....	149
6.1.5 Maps.....	149
6.1.6 Social mobility tables.....	149
Male.....	150

Female.....	150
6.1.7 Odds ratios	151
SECTION 2: MEASURING EQUITY IN THE DISTRIBUTION OF PUBLIC RESOURCES	152
6. 2.1 The Structural Distribution of Public Education Resources.....	152
6.2.2 Distributive Equity in Public Education Expenditure: Social Disparities in the Appropriation of Education Resources and Benefit Incidence Analysis	154
ANNEXES.....	158
Household income model: (Chpt 5)	160

DRAFT

ESA Executive Summary

INTRODUCTION

The Ministry of Education in Afghanistan, MOE is in the process of developing the next National Education Strategic Plan, NESP III 2015 – 2019. It has joined the Global Partnership for Education (GPE) and will seek a three-year Program Implementation Grant from the GPE. A requirement for such a grant is the development of a comprehensive Education Sector Analysis and a joint appraisal process of the education plan (NESP III) carried out by the local education donor group (LEG).

This Education Sector Analysis focuses on basic education grades 1- 12 but seeks to capture the vertical articulation between different levels of education from ECCD and Literacy to TVET and Higher Education (HE).

This is done taking into consideration a supply and demand perspective and a relevance and quality perspective on the provision of education across the whole sector. The ESA is structured in six major chapters on basis of the GPE Guidelines.

The methodology has comprised document review and analysis of datasets from MOE EMIS, CSO, NRVA and AMICS as well as from MOE MTEF. In addition, a limited number of interviews and consultations with MOE key staff, education sector stakeholders and DPs were administered.

A team coordinated by Pouras Consult Aps developed the ESA during August 2015 – January 2016. It comprised Mr. Poul Erik Rasmussen, Education Expert and Lead consultant, Mr. Allan Kelly, Economist, and Mr. Sadish Dhakal, Statistician.

SECTOR CONTEXT

THE SOCIAL, HUMANITARIAN AND DEMOGRAPHIC CONTEXTS

No population census has been conducted since 1979 in Afghanistan due to more than three decades of war and conflict. All population data available, therefore, are different projections based on the 1979 data sets.

UN data estimates the population to be 32.024 million in 2015. However, the CSO estimates the population to be only 28.6 million in 2015/2016. In our calculations, we have used UN data.

The population of Afghanistan is overwhelmingly rural: the 19.4 million rural residents represent 71.8 percent of the total population. Only 22.7 percent (6.1 million) live in urban areas, whereas 5.4 percent (1.5 million) of the population is classified as Kuchi.

Afghanistan has a very young population 48.4 percent (13 million) of the population is under 15 years of age, whereas the elderly of 65 years and over represent only 2.5 percent of the total population. The proportion under 15 would figure the second highest in the world in the 2010 UN population estimates.

Poverty is widespread in Afghanistan. With about 36 percent of the population still consuming below the poverty line, it has not changed over the last five years. Poverty remains higher in rural areas and amongst the Kuchi population. Poverty has also remained unchanged within most regions, and significant changes in poverty are observed in only two regions: in the North-East, where poverty headcount increased from 36.4 to 50.9 percent, and in the North where it declined

from 39.4 to 31.7. One of the explanations for the seeming stagnation of poverty over time is the widening inequality; consumption in richer parts of the population is growing faster.

The poorest segment of the population have not benefited from the general improvement in economic conditions. In particular, limited human capital endowments (literacy, education attainment) in poorer households might have prevented them from reaping the opportunities of better employment opportunities in the non-farm and (high-skill) service sector, resulting in stagnating poverty rates and widening inequality.

There is wide variation in poverty in Afghanistan with large differences in poverty incidence by residence and by region. The variation in poverty between the rural, Kuchi and urban populations is significant and of great importance, and gender inequality is one of the highest in the world.

The youngest segments of the population are over-represented amongst the poor. Children below 15 represent a larger share of the poor than of the total population – a result in line with the finding that larger households and with relatively more dependents are more likely to be vulnerable to the risk of poverty.

Low level of education of the head of household is one of the strongest determinants of poverty. The head's literacy status and education level are strongly correlated with the risk of poverty. Poverty rates for individuals living in households with an illiterate head are 14 percentage points higher than those of individuals living in households with a literate head (41.6 and 27.6 percent respectively).

Labor market characteristics of the household head are another important correlate of poverty. Poverty headcount is the highest amongst individuals in households whose head is underemployed.

Afghanistan has one of the lowest literacy rates in the world. Age 15 + had a male literacy rate of 62 and a female of 18 against the median value for low income countries of M 70 and F 57 respectively. Literacy rates are marked by large geographical variation and gender disparities. While urban areas and regions of relative economic security can expect a literacy rate of over 30%, the more remote and insecure areas have levels of literacy closer to 15%. Equally, stark variations in the gender parity are evident across the country. Only one in five women in Afghanistan is literate and women's literacy rate in rural areas is three times lower than in urban areas.

In Afghanistan, less than one in five children attend pre-school. Only 13% of children who were attending the first grade of primary school in the 2010/2011 school year were attending pre-school the previous school year. The proportion of children in rural areas (11%) who had attended pre-school the previous year is almost twice as low as children living in urban areas (20%).

The Infant Mortality Rate (IMR) is 48 deaths per thousand live births. The Under-five Mortality Rate (U5MR) is estimated at 91 deaths per thousand live births. For both indicators, a considerable gap exists between urban and rural populations. Life expectancy at birth f/m is 62.0/59.5

Afghanistan's Maternal Mortality Ratio (MMR), was estimated at 1,600 to 1,900 maternal deaths per 100,000 live births, and was the second highest in the world.

The majority of children in Afghanistan suffer from malnutrition. Most are underweight but more than one in five is overweight. In both cases malnutrition is negatively correlated to the mother's education. Almost one in three children under age five in Afghanistan are moderately or severely underweight (31%). More than a half of children (55%) are moderately or severely stunted or too short for their age, and 18% are moderately or severely wasted or too thin for their height.

The prevalence of HIV/AIDS is relatively low in Afghanistan and its impact on education is negligible. It is estimated that between 2,000 to 3,000 people may be living with the deadly virus in Afghanistan.

Disability is defined by social and cultural norms, and what is considered "disability" in a given context is not necessarily the case in another. In Afghan culture, disability is perceived differently according to gender differences, traditional or ethnic attitudes and religious motives, and even the person's economic status. The number of people with disabilities is estimated at 800,000 in Afghanistan equivalent to 2.7 % of the population. According to AAOD: Accessibility Organizations for Afghan Disabled, ninety five percent of children with disabilities in Afghanistan do not attend schools due to inaccessible environment.

The **Human Development Index (HDI)** is a composite statistic of life expectancy, education, and per capita income indicators, which is used to rank countries into four tiers of human development. Afghanistan is depicted in the Low human development group. It belongs to the least developed countries and was ranked number 169 on the HDI. Its HDI value in 2013 was 0.468 against the regional South Asian average of 0.588

There is a diverse range of ethnic groups within the country. Of the 32 million Afghan residents, 42% are Pashtun, 27% Tajik, 9% Hazara, 9% Uzbek, 4% Aimak, 3% Turkmen, 2% Baloch and 4% fall into an unspecified "other" group.

Pashto and Dari are the official languages of Afghanistan. Dari (Afghan Persian) is spoken by 50% of the population and serves as the lingua franca in Kabul, Herat, Mazar-i-Sharif and other cities in northern and north-western Afghanistan, mostly in Tajik and Hazara areas, while Pashto is spoken by 35%, mostly in the South-Eastern Pashtun areas of the country where ethnic Pashtuns are the majority. Turkmen and Uzbek are spoken by 11% in the northern regions of the country, while 4% speak 30 other languages including Arabic. Many residents of the country are multilingual¹.

The Afghan constitution states that Islam is the "religion of the state". Both Shia and Sunni Islam are accorded equal recognition, while followers of other religions are free to exercise their faith and perform their religious rites within the limits of the provisions of law.²

Almost the entire Afghan population is Muslim, with less than 1% being non-Muslim. Muslims account for 99% of the population of Afghanistan, with between 80% and 89% practicing Sunni Islam while 10-19% are Shia.

Afghanistan ranks 160 out of 162 in the 2015 Global Peace Index. It is only surpassed by Iraq and Syria. Against the backdrop of the withdrawal of most international forces from Afghanistan during recent years, the number of deaths from internal conflict in the country rose last year in tandem with an increase in political terror. Crucially, the uncertainty stemming from the shift in responsibility for security from foreign troops to Afghan forces means that the chances of sustained internal conflict remain high.

The International Convention on the Rights of the Child (CRC) states that every child has the right to a name and a nationality, and the right to protection from being deprived of his or her identity. The births of only 37% of children under five years of age in Afghanistan have been registered. There are no significant variations in birth registration between boys (38%) and girls (37%).

¹ Ibid.

² www.state.gov/documents/organization/171751.pdf

In Afghanistan, 27% of children aged 5-11 years were involved in child labour activities, while the figure is 22% for children aged 12-14 years. The prevalence of total child labour (aged 5-14 years) is 25%. There is a variance of total child labour between girls (23%) and boys (28%). Major variances are observed across residence, the mother's education level, household socio-economic status, and region. Almost twice as many children in rural areas (28%) are involved in child labour than their counterparts in urban areas (15%).

Of the 42% of children aged 5-14 attending school, more than half of them (51%) are also involved in child labour activities. Of the 25% of children involved in child labour, less than one third of them are also attending school (31%). Of children involved in child labour who are attending school, there are significant differentials by gender, residence, region, mother's education level and household socio-economic status.

THE MACROECONOMIC AND PUBLIC FINANCE CONTEXTS

Afghanistan had a decade of high growth rates from 2003, and the economy is now in transition. Economic growth rates have declined in Afghanistan since 1392 (2013), with this slowdown becoming more marked in 1393 (2014), and it has continued in 1394 (2015). The growth rates were adversely affected by the impact from the long political transfer process during 2014, the transition with international forces, ongoing security issues, and lower business confidence and investment. This has resulted in lower economic growth of 1.3 percent in 2014, and slower recovery in 2015, with a forecast rate of 2.0 percent³. These growth rates are lower than those over the previous decade, and lower than originally forecast.

GDP growth is projected to rise over the period 2016 to 2020 from 3 to 6 percent, and in the long-term to average 4.5 percent⁴. The growth is expected to come from agriculture, and from a recovery in confidence, increased mining and energy sector activity, and from the gains achieved under the National Unity Government's reform agenda. Delays with the planned major mining projects, in terms of implementation and the effects from low commodity prices will lead to slippage in investment and income streams to 2018. The economic growth will be dependent on domestic and regional security conditions not deteriorating, a recovery in economic confidence, and effective implementation of the Government's reform policies. The international development partners have committed to continuing to support Afghanistan through the transition period. This support is based on the government delivering on its commitments under the Mutual Accountability Framework.

Public Resources. Domestic revenues declined by 3 percent of GDP over the period 1390, from 11.5 % to 8.5% in 1393. Given the domestic revenue constraints, the government is heavily reliant on donor aid to fund the development budget and part of the operating budget. In the education sector, donor ODA is used to fund the development budget and part of the operating budget, and off-budget project interventions. Afghanistan is one of the most highly aid dependent economies. It currently receives approximately \$US6 billion of civilian official development assistance (ODA) per year.

Public Expenditures. Government budget expenditures (operating and development expenditures) in total have remained relatively consistent in recent years, rising from 23% of GDP in 1390, and from 1391 to 1393 remaining at around 25 percent of GDP. Operating expenditure in 1393 accounted for 19.4 percent of GDP, and development expenditure 6.2 percent of GDP.

³ IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

⁴ MOF Medium Term fiscal Framework (2015), and IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

Future Prospects. The Government medium term fiscal framework (MTFF) provides the Government's projection on future revenue and expenditure. It is based key assumptions on revenue and expenditures, and includes the security expenditure projection which is estimated will rise to 17 percent of GDP in 1399, before declining as a % of GDP in the longer term. The future projections are based on economic growth, reform progress, security improvement, and ongoing development partner grant support. While revenue is forecast to increase, expenditure is also expected to rise, meaning that the government total budget deficit (excluding grants) and resulting financing requirement will remain large. As noted by the IMF and MOF should grants decline there is would be a need to rapidly increase domestic revenue collections, and to a limited extent this shortfall could be financed by external loans.

The MTFF forward projections on education sector expenditure indicate a relatively unchanged total allocation for the forecast period to 1398, ranging between 57.1 to 59.5 billion AFs over the period 1395 to 1399 (2016 to 2020).

An initial options analysis has been undertaken to assess the future funding requirements for the MOE and MOHE. This analysis will be updated in the final report. While the MTFF provides the medium term fiscal resource bound that the government considers is currently feasible. It is essential to assess the demand requirement and determine the level of financial resources required to maintain or improve the existing service delivery.

Based on these assumptions, and the MTFF fiscal resource projection for the education sector are able to estimate the unit costs per student, these projections are summarized below and indicate that the unit cost per student would decline significantly (MOHE from 24,000 to 16,000 Afs unit recurrent cost per student, general education (from 3470 to 2850 AFs) and TVET from 17,600 to 14,300 AFs) over the period 2016 to 2020.

The initial analysis indicates that current level of the MTFF education sector resource projection, both MOE and MOHE would have to operate with lower quality service, with larger pupil teacher ratios, and limited material, operations and maintenance and other non-salary services, given increasing student numbers. The development budget is assumed to continue providing the needed infrastructure. With the two options analysed, option 1 (equivalent to existing) and option 2 (initial quality improvement) the resource requirements greatly exceed the MTFF fiscal allocation.

The options for financing the identified shortfalls, should involve further review with MOF to seek increased funding resources, with the donors to seek both increased commitments to education and more on-budget allocations to improve aid effectiveness, and within the ministries very thorough impact assessments and cost reviews to improve internal efficiency and outcomes. Also, if alternate options are available to implement means tested cost sharing for service users. In the medium term, given the resource constraints it will be a challenge to maintain and improve quality.

ACCESS

Afghanistan has made steady progress in reconstituting the education sector over the past decade:

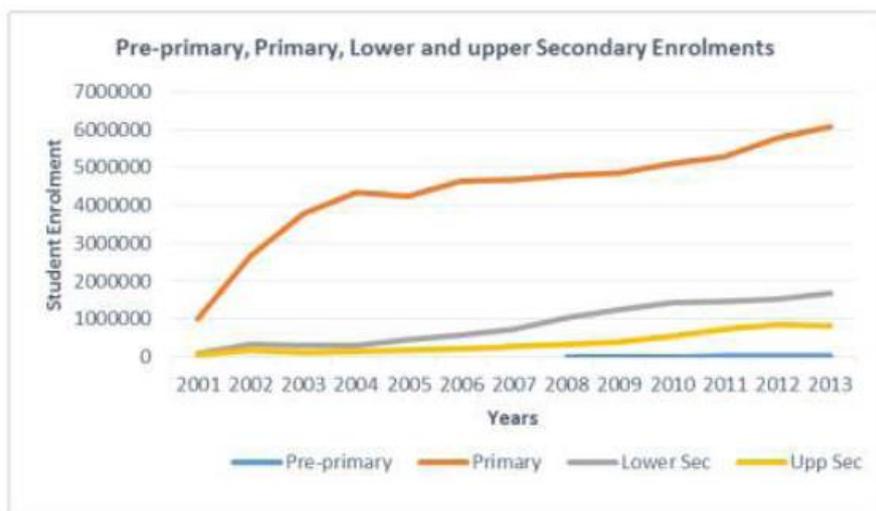
From approximately 800,000 students, and very few girls, in 2001 to more than 8.5 million students in 1393 (2014) of whom 5,213,426 are boys and 3,370,280 or 39 % are girls⁵.

Most students who begin primary school complete primary school. The challenge lies in raising primary attendance rates beyond the rate of 55%, and in ensuring a far greater proportion of

⁵ MOE EMIS Enrolment by programme 1393

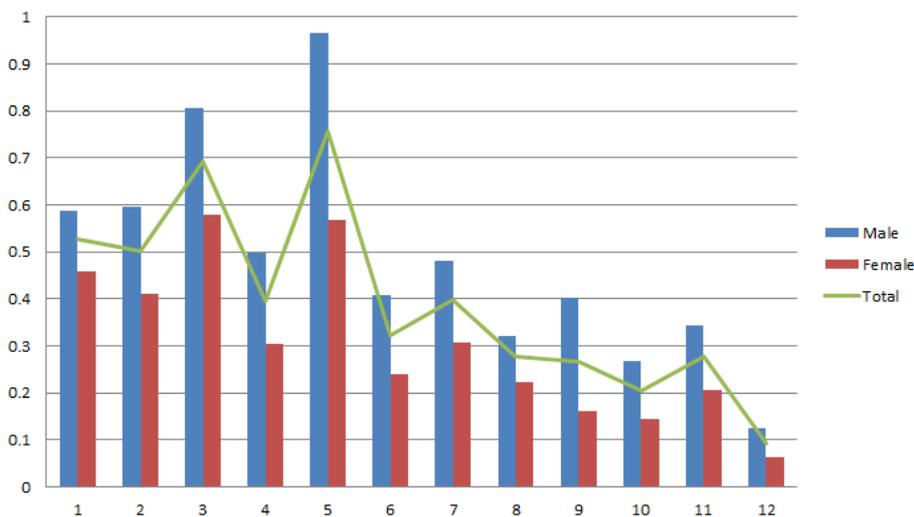
primary graduates go on to start and complete a secondary level education. In particular, there is a sharp drop in girls' school attendance after primary school.

Enrollment in GE schools increased to 8.6 million in 2012. Out of these, about 1 million were permanently absent. They were kept enrolled in the school registers to encourage their return.



The graph above shows enrolment rates at pre-primary, primary, lower secondary, and upper secondary levels between 2001 and 2013⁶. We can see above that enrolment at the primary level has been historically higher. The growth in enrolment is primary education accelerated between 2001 and 2005, and then slowed down.

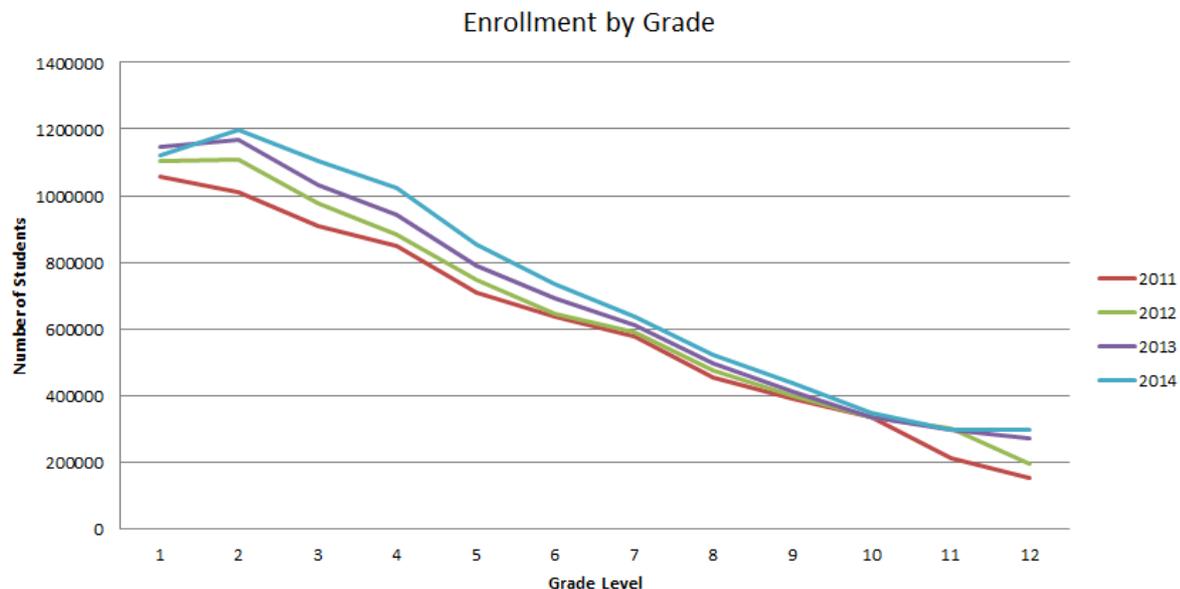
Gross Enrollment Ratio across Grades (2012)



GER is high for males at all grade levels. We can also see that GER increases till the end of primary school, and then suddenly drops. We cannot tell, however, whether the surge in 5th grade is due to repetition.

⁶ Afghanistan National Education for All (EFA) Review Report 2015, Ministry of Education, Islamic Republic of Afghanistan, June 2014

Repetition is an important indicator of the performance of a schooling system. We used the EMIS dataset to estimate the average repetition rate in GE for 2013 and 2014.

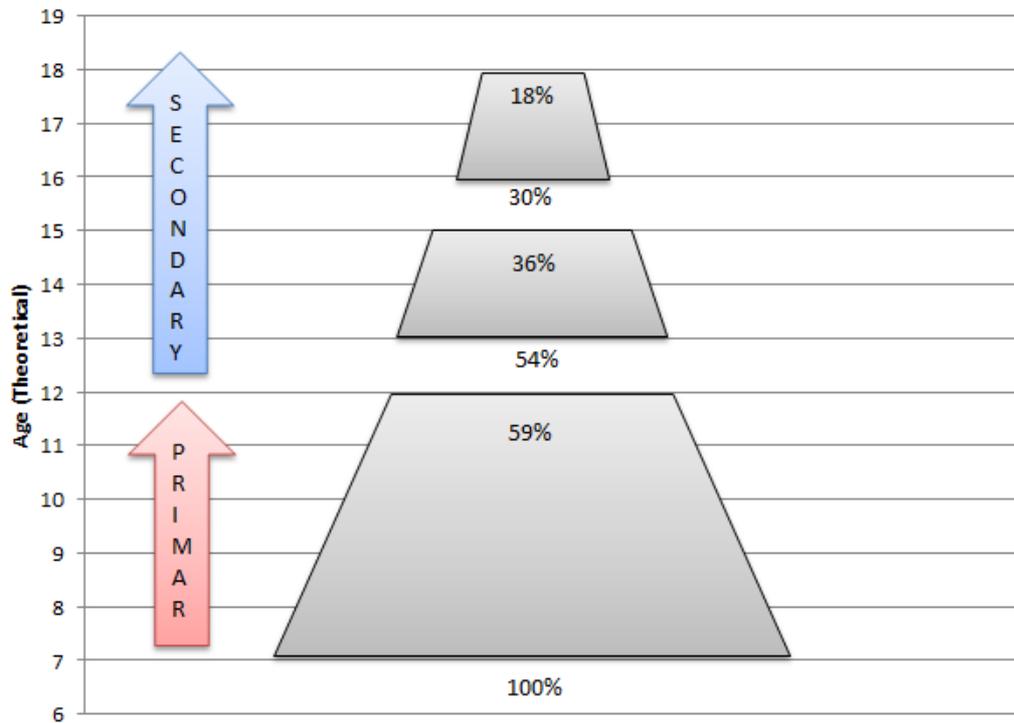


School life Expectancy is the average number of schooling years the children of a given country may hope to complete (repeated years are not included) given the prevailing conditions offered by an education system. SLE has increased about 6 months between 2011 and 2014, though it still remains low.

Year	Total Enrolment	Population of school-going age	AER	SLE
2012	7,779,101	10,252,571	0.76	9.12
2013	8,203,724	10,500,035	0.78	9.36
2014	8,583,706	10,750,936	0.80	9.6

For each ten students, who start in grade one, less than six make it to the end of grade six and only two make it to the end of grade 12.

Education Pyramid: Enrollment by Theoretical Age



In 2012, 618 new schools were built. This exceeded MoE's target of 600 schools. As a result, the number of GE schools increased from 14,071 (in 2011) to 14,693 (in 2012), 6,376 of which are primary schools. Out of the total GE schools, 16% are girls' schools, 30% are boys, and the remaining 54% are co-educational schools⁷. There has also been new recruitment of teachers over the years. Between 2001 and 2013, 187,000 teachers were recruited, 70% of whom teach at the primary level.

Primary school attendance

Only 55% of children of primary school age (7-12) are attending school. In urban areas, 78% of children attend school while in rural areas attendance is only 50%. The proportion of children attending primary or secondary school increases with the child's age up to the age of 11. Attendance starts to decrease from age 12. Primary school attendance shows significant variance between children living in the poorest households (40% attendance) and those living in the wealthiest households (79% attendance).

Community-based education (CBE) is an approach to expanding access to education in remote rural communities, which are beyond the reach of the official MOE system. Supported by NGOs CBE has offered primary early education grades 1-3 to more than 200,000 children over the last six years.

Research has shown that the provision of education in close proximity to children's' homes, one of the hallmarks of the CBE approach, is critical for improving equitable access, retention and learning achievement for children in remote villages.

Secondary School Attendance

⁷ Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

About 32% of secondary school age children are attending school. The secondary school NAR for girls (21%) is more than two times lower than that of boys (43%). The secondary NAR of rural secondary school age children is two times lower than their counterparts in urban areas

Early Childhood Care and Education (ECCE) and Preschool

In Afghanistan, attention to ECCE has, so far, been negligible. Only 1% of children aged 36-59 months are attending pre-school. Urban-rural and regional variances are significant. The attendance figure is eight times higher in urban areas as compared to rural areas. There is robust evidence to suggest that systematic preschool programmes improve learning.

Of all children starting Grade One, more than four in five (84%) eventually reach the last grade. Note that this number includes children that repeat grades and that eventually move up to reach the last grade. Compared with primary NAR, it can be concluded that the majority of primary school age children who enrol in primary school are likely to remain in school until the last grade of primary school.

The primary school completion rate was 31%. The primary school completion rate for girls (21%) is almost twice as low as that for boys (40%). There is a significant difference in the primary school completion rate in rural areas (28%) compared to urban areas (42%) and between rates by region. Children living in the poorest households are more than twice as likely to not complete their primary education (21%) by the appropriate age than their counterparts living in the wealthiest households (41%). The mother's education level also seems to impact this indicator.

The percentage of school starters who drop out before reaching grade six largely complements the survival rate. Overall, 14 percent of children who started primary school dropped out before the final level. There is little difference between urban and rural dropout rates, but girls seem to drop out somewhat more often than boys (14.6 percent against 13.6 percent). Grade-by-grade dropout rates tend to increase by advancement in primary school.

There is a steady increase in the number of students reaching the highest grades of secondary education, and there is growing demand for higher education from young Afghans. In the five years from 1387 (2008) to 1393 (2014) enrolment at grade 12 almost quadrupled and most of these want to enroll at higher education institutions.

Admission to higher education institutions, however, is severely restricted. In 2015, 219,145 students had participated in Kankor examination. Of these only 54,737 or 25% of high school graduates managed to pass the entry test for governmental higher education institutes while 36,750 others would be enrolled in semi-higher education governmental institutes.

The MoE estimates that there are over 3.5 million children out of school. According to the MoE, 1,080,692 students-- 15% of the total number of students in 2011-- were permanently absent. This is the total number of permanently absent student accumulated over the three years leading up to 2011. This allows us to estimate that about 5% of the total student population drops out of school every year.

Reasons for non-attendance in education are a multi-faceted issue. It involves, among others, economic, cultural, security, health and distance considerations.

Economic considerations figure importantly as the main reason for no longer attending school. Their prominence increases with the level of education. It is worth noticing that from the mentioned economic reasons, 'opportunity costs', especially for males, were more important than direct costs.

While security concerns are obstacles for school attendance, they seem to be concentrated in primary school ages and especially among girls: overall, for 22 percent of girls aged 7 to 12, this was the main reason to drop out from school.

In the ALCS 2015 two reasons for non-attendance that are closely related to age are the consideration that children are too young for school and the one that sufficient education has been obtained. The first is almost exclusively mentioned for primary school age children, but it is remarkable that many households consider the age of seven – and sometimes even higher ages – too young to attend school.

COST & FINANCING

The education sector is a key government priority, and in 1393 (2014) it accounted for 14.1% of total government expenditure (excluding debt service), 15.7% of government recurrent expenditure, 9.9% of development expenditure and 3.8% of GDP. While education expenditure at this level appears relatively low compared to equivalent developing countries, given Afghanistan's large school age population, this percentage allocation is affected by the high levels of government security expenditure.

Afghanistan is one of the most highly aid dependent economies. It currently receives approximately \$US6 billion of civilian official development assistance (ODA) per year. In addition, it receives financial support for military and security sectors, with the total including ODA, at approximately \$15 billion per year.

The government has domestic revenue constraints, and is heavily reliant on donor aid to fund the development budget and part of the operating budget. In the education sector, donor ODA is used to fund the development budget and part of the operating budget, and off-budget project interventions. The MOE expenditure (1391-1393) was estimated at \$US2.5 billion with at least 43% funded by donors. Of the donor aid, only 25% of the expenditure was on budget, with the remaining development expenditure off-budget. For MOHE, the total expenditure (1391-1393) was estimated at \$US 360 million with at least 53% donor funded, and with approximately 35% of donor aid being on-budget.

This low level of on-budget support for both MOE and MOHE, indicates that there are significant opportunities to improve aid effectiveness in the education sector. The donor performance in the education sector is not inline with agreed on-budget targets. At the Tokyo Conference (2012), government and donors endorsed the target of 50% of civilian aid to be on-budget. This overall target was met by donors in 1393. Given current development budget expenditure rates, to achieve the full impact from moving education funds on-budget, coordinated improvements in line ministries absorptive capacity (ie. procurement, monitoring and implementation) will be necessary.

The demand for education at primary, secondary, teacher education, TVET and higher education levels has increased over the period 1390 to 1393, with increases in student number in general education (primary and secondary) of 20%, in teacher college students of 45%, TVET student numbers have almost doubled and in public higher education the student numbers have increased by almost 150%. With the literacy program, the number of literacy students attending school has declined slightly, and literacy courses have been maintained at a relatively constant level. While there has been an increase in the teacher numbers and schools, the increase has not kept pace with student expansion and the pupil teacher ratios have risen.

Qualified teachers are in demand, and in the current labor market a teaching qualification provides a graduate with better prospects, higher employment rates and income. As indicated in the CSO ALCS (2013/2014) 72% of those with a teaching qualification work in the public sector. Also, in terms of salaries, their salaries are competitive, and as part of the public sector are in the income group classified as having the highest mean and medium monthly earnings.

The public recurrent expenditure in total and per student in MOE and MOHE. reflects this financial pressure as the salary component dominates recurrent expenditure, with very limited financial resources remaining for materials, operations and maintenance. For MOE in 1393, the goods and services expenditures were reduced to 2.6%, and operations and maintenance was 1.6% of the recurrent budget. MOHE has a lower % salary share in their recurrent budget, but has a large non-salary cost in providing dormitories and meals for all students, and likewise has very limited resources for materials, operations and maintenance.

While recurrent budgets and expenditure increased, except for general education it did not keep pace with the increase in student number and the unit cost per student declined. Whether this reduced unit recurrent cost per student reflects economies of scale and efficiency gains, or a potential decline in quality is to be determined. The evidence indicates rising PTRs and declining expenditure for non-salary costs including O&M, are potential risks to both quality and delivery sustainability.

In general education, TVET and higher education sub-sectors, the % of GDP per capita declined from 1390 to 1393. Using the general education % of GDP as the base, the trend indicates the rising resource cost, with a multiple for TVET of 5.1 and for higher education of 7.3. A similar trend applied in 1390, but at higher multiples in all sub-sectors. Estimates were not possible for teacher education and literacy programs due to the lack of disaggregated financial data.

The public recurrent expenditure per pupil in 1393, indicates the significant cost increase involved per student as move from general education (primary and secondary), to TVET and higher education. The unit costs are dominated by salaries (teacher/ non teacher) and living costs provided by public TVET and higher education institutions that account for the major expenditure under non-salary operational costs.

While limited data is available on the private household costs of education, as indicated in the ALCS (2013/2014) for poor and low income households, it is the need for the child to work, that is the opportunity cost of the income foregone from attending school, that is a critical factor for non-participation. This factor was more important than the direct costs of education.

There is a major requirement for new schools with supporting facilities, and the need to invest and improve the existing school infrastructure there is a large capital investment required over the medium to long term. The estimates of the investment required⁸ greatly exceed government and development partner current and planned future investment levels. The identified fiscal constraints emphasize the critical importance of achieving value for money in school construction design, in contract tendering and award, and in contract construction supervision.

The government is aware of the large unfunded O&M cost, and since 1392 it has implemented reforms in nine ministries, including MOE and MOHE, to improve O&M. Given the large expenditure and budget increase required, with indicative estimates of over \$US150 million per year, to implement a sustainable O&M policy and practice in the education ministries, there will need to be an overall investment in existing government systems, with major institutional capacity enhancement to cost effectively manage O&M on the required scale.

In 1393 the education sub-sectors were operating with higher PTRs and very limited non-salary allocation expenditure. This indicates that if student numbers increase as expected, and quality is to be maintained, increased financial and human resources will be required. The challenge is the

⁸ MOE, National Education Strategic Plan (2015-2020) Draft (June 2014); MOHE National Higher Education Strategic Plan (2015-2020), (April 215); A. S. Raouf paper, School Facilities in Afghanistan Current Gaps and Challenges for the Future, 2013.

tight medium term fiscal projections for the economy and education sector, which will mean increases are likely to be limited. In this environment a review of all expenditure areas for possible efficiency improvements and improved prioritization should be undertaken. For such a review to be effective it will require the ministries to have detailed disaggregated physical and financial data, so all cost areas, salary (teaching, non teaching), administration staff (central and provincial), and non-salary costs and can be thoroughly assessed.

QUALITY

The quality of the education system in Afghanistan measured by the proportion of students who are able to perform the grade specific tasks expected at their level and who reach to the final stage of the school cycle and pass the exams is poor. There is now a growing realization among the new political leadership in Afghanistan that quality of education has not received as much attention as the quantitative dimensions of education. Among the factors affecting quality identified by the new minister are: ...poor school facilities; inappropriate curriculum; inadequate teacher qualifications, inadequate and insufficient textbooks and learning materials, inefficient provision and untimely distribution of textbooks. Therefore, there will be a renewed focus on quality.

The survival rate to the last grade of primary (grade 6) was 58 % (60 % boys, 54 % girls) in 2013 suggesting that 4 out of 10 pupils who enrol in grade 1 do not reach grade 6 of primary education.⁹ Learning achievement is a cause of concern. Results from a Learning Assessment study of grade 6 students¹⁰ indicate that:

- 10% of students cannot **read** simple words,
- 14% of students cannot name simple shapes in **maths**
- 31% of students cannot **write** a simple word

Afghanistan does not yet have standardized performance tests or national examinations at primary or secondary school, which makes assessing learning outcomes a challenge.

Afghanistan is in the process of reviewing its examination system, with a Directorate for *Standards, Research and Evaluation* being established within the Curriculum Development Department (Afghanistan Ministry of Education, 2010). According to *Afghanistan's National Education Strategic Plan (1389-1393/2010-2014)* (Afghanistan Ministry of Education, 2010), examinations are administered twice annually to Grade 4 students and above. These examinations are not standardised and are created and marked by classroom teachers. There is no central examinations authority. Currently, the highest level is the PED.

Examinations are typically used to certify and select students, and have traditionally served gate-keeping functions, for example, limiting entry to a course or institution, or determining learning paths such as 'academic' or 'vocational'. Therefore, examinations often have high stakes for students as there are consequences for high and low achievement. The examinations are high stakes for students, as their percentage scores determine whether or not they can move ahead to the next grade.

Little systematic and comprehensive information on students' learning achievement and the quality of educational outcomes, was available in Afghanistan despite data having been collected on school attendance and literacy levels in the population. The 2013 MTEG assessment of Class 6 students in Afghanistan was intended to contribute to the discussion on gender disparity by reporting on the proficiency levels of girls and boys in the domains of mathematical, reading and

⁹ (EFA 2015, MOE)

¹⁰ Monitoring Trends in Educational Growth (MTEG) Afghanistan: Strengthening Afghanistan's Learning Assessment System, ACER
Australian Council for Educational Research, 2013

writing literacy. The data provided information on background characteristics that may interact with school attendance and achievement, both of which are important indicators of gender parity. These background characteristics included attitudes to school, perceived support, socio-economic status, and location.

The results showed that while there were small numbers of Class 6 students operating at the higher levels of proficiency in each of the domains of reading, writing and mathematical literacy, there were substantial proportions of the population who were not able to perform simple reading, writing and mathematical tasks.

We tried to compare the performance of Afghan students to their peers in neighbouring countries using International Standardised Learning Assessments. It appeared that Class 6 students in Afghanistan were performing at a lower or similar level compared to Class 4 students in neighbouring countries (Islamic Republic of Iran, Azerbaijan and Kazakhstan).

The literacy rate in Afghanistan is one of the lowest in the world. In 2005 it stood at 31%, 20% for women, but nine years later it had increased to 52%.

The adult literacy rate – referring to the population aged 15 and over – stands at 34 %. It indicates the accumulated achievement of primary education and literacy programmes in providing basic literacy skills to the population. The complementary illiteracy rate of 66 percent implies that there are around 9.7 million illiterate persons aged 15 and older in Afghanistan, 5.9 million women and 3.8 million men.

The youth literacy rate – the rate calculated for the sub-population aged 15-24 – is one of the MDG indicators to measure progress towards achieving universal primary education (MDG goal 2). It reflects the outcomes of primary education over roughly the previous 10 years. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. The overall youth literacy rate of 52 percent would imply that Afghanistan is one of the countries with the lowest literacy in the world.

The literacy gender parity index is the ratio of the female literacy rate to the male literacy rate for the age group 15-24. The indicator is applied in Afghanistan as an ANDS indicator to measure progress towards gender equity in education and is also a key indicator of empowerment of women in society. In 2013-14 a figure of 0.55 was found for this indicator, indicating that the share of female youth that is able to read and write is just over half that of male youth.

CAPACITY & MANAGEMENT

ANALYSIS OF SYSTEM CAPACITY

Capacity is defined as the maximum level of output of goods and/or services that a given system can potentially produce over a set period of time. When analyzing capacity of the education system we are interested in its performance in terms of learning achievement and the numbers and proportion of successful graduates completing the full learning cycle, i.e. grade 12.

A proxy indicator for the education system output in Afghanistan is the adult literacy rate, which stands at 34% and the youth literacy rate, which stands at 52, one of the lowest in the world. The proportion of students, who make it to the last 12th grade of schooling, is 18%. The complementary values of these figures are indicative of the system waste: an adult illiteracy rate at 66%, youth illiteracy at 48% and overall school dropout of 82%.

We tried to isolate the variables that contribute to learning outcomes and to estimate their relative contribution to learning in order to identify an instrument for policy analysis, which could help

planners making choices between alternative inputs in order to optimize benefits, in this case enrolment and learning outcomes. We have identified a number of variables and seek to establish their relative importance by means of various studies that have been undertaken. Factors that have been assessed are: age, distance to school, teacher qualification and teacher academic support, access to textbooks, parents' educational background and socio-economic status (SES). Factors that have not been assessed are: the quality of the curriculum, the quality of textbooks, and the number of contact hours, school management.

Early Childhood Development: Progress in schooling is often associated with cognitive abilities acquired at a young age. Prior participation in early childhood education and learning programmes can play an important role in a child's future education, because they shape the attitudes towards learning and help children to develop basic social skills. However, early childhood education attendance is very low in Afghanistan, with implications for successful transitions to primary school.

Exposure to books during a child's early years: The presence of books in the household is important for later school performance and literacy development. In Afghanistan, only 2% of children aged 0-59 months are living in households where at least three children's books are present.

Age is an important factor: Students in grade 6 who are 15 years and older may be up to 6 months behind those students who start school on time.

There is a positive correlation between student performance and the availability of modern facilities at schools: Students who attend schools that have water, electricity or Internet perform better.

Distance from home to school matters – a lot, and there is a strong correlation between enrolment, performance and distance to school. Proximity significantly affects both boys' and girls' enrolment with average enrolment rates declining 16 percentage points for every additional mile children had to travel to school. Beyond two miles enrolment dropped to about 30 percent – vs. 70 percent enrolment within a mile from home. The effect of proximity was particularly dramatic for girls, whose enrolment dropped a precipitous 19 percent with even a one-mile increase in distance between their home and school.

Student learning achievement is somewhat associated with teacher qualifications but more importantly with the way teachers are supported in the classroom: The effect on student learning of university qualified teachers in a school was not as great as the effect of providing direct support to teachers in the school (teacher education visits).

There is strong evidence to support the goal of having a full set of textbooks for each student. The correlation between textbook use and learning outcomes shows better score values of 7 in Maths, 9 in Reading and 5 in Writing.

The significance of parent's education level on student academic performance is quite high. Students with no parents are seriously disadvantaged.

Students who speak a language other than Dari or Pashtu in the home are on average six months behind their peers in school.

The previous section demonstrated the effect of various factors on learning outcomes. In situations of scarcity it would be beneficial to be able to determine the relative significance of the various factors in order to make rational policy choices between alternatives. Such an analysis, however, would require that we were able to isolate and calculate the net effect of specific factors on

learning results and that we were able to construct the annualised unit costs of the chosen factors. So far, we have not been able to isolate the unit costs of such factors as e.g. textbooks, qualified teachers, teacher support linked to CPD and others.

Given the strong evidence of the positive effects on enrolment, retention and learning of CBE schools, one of the most interesting cost-effectiveness analyses we could think of is the cost-effectiveness of CBE in remote and sparsely populated areas versus MOE hub schools at a distance higher than 1 - 2 kilometres from students' homes.

SECTOR ORGANISATIONAL STRUCTURE

Institutional Analysis

MOE has made significant progress since 2007 in building a modern and functional education administration. Still, however, a number of challenges remain in its work on institutional reform. The organizational structure of the Ministry of Education¹¹ now loosely corresponds to its five main programmes identified in the National Education Strategic Plan (NESP). The MoE has six Deputy Ministries: (i) Administration and finance; (ii) Islamic education; (iii) Literacy; (iv) Technical and vocational education and training (TVET); (v) Curriculum development and teacher training; and (vi) Academic.

The Education Management Information System (EMIS) was initiated in 1384 (2005). It has its own Directorate and has developed into a comprehensive information service for MOE. It undertakes the Annual School Census (ASC) based on a comprehensive census questionnaire form and the Directorate is responsible for collecting, storing, processing and disseminating all education statistical data. Moreover it is responsible for developing information systems and reporting against NESP indicators.

Monitoring of education performance has significantly improved over the last few years. Since 1391 (2012) and in 1392 and 1394 (2015) MOE has conducted an Education Joint Sector Review focused on Planning, Management, EMIS, M&E, Reporting, Budget and Finance and HRM as well as progress and challenges in the five NESP programmes.

Decentralisation, is a high political priority The main thrust of the 1394/2015 EJSR report, expected by February 2016, will be on this. DEDs and schools, for example, do not know about their budgets. Under the World Bank sponsored EQUIP programme school management councils or "shuras" have been established in a large number of schools.

Further institutional reform and capacity building of the MOE is critical for sustained delivery of quality services. The system is heavily centralized and there are still many examples of unclear functional mandates of sector departments and offices, of lack of coordination leading to duplication, fragmentation and inefficiencies and of excessive dependence on short-term technical assistants (TA).

The issue of technical assistance and the need for sustainable staffing and capacity building has been a recurrent issue among the education sector stakeholders. A draft assessment report on TA with a proposal on capacity building reform states: A major capacity objective will concern staffing and the need to recruit better qualified personnel to achieve the reform objectives. As explained, rapid expansion of services together with fragmented support from DPs has in the past led to an unsustainable provision of technical assistance (TA) through the development budget for key ministry operations.

¹¹ "Educational Sub-National Assessment", Altai Consultants, 2015.

MANAGEMENT OF TEACHERS

Afghanistan is characterized by a severe shortage of teachers evidenced by its high Pupil-Teacher Ratio (PTR). In 2013 it was 45:1, which is slightly higher than the official policy of PTR of 40:1. The teacher shortage is worse in the rural areas, especially amongst female teachers. Out of the 187,000 teachers in general education, only 33 per cent are females and only very few of these are in rural schools. On teacher recruitment, availability of adequate finances is a major hurdle; the HR, driven by availability of budget from MOF, substantially reduces requests given by PEDs every year. PEDs, as a result are 'left with no choice' but to recruit teachers on contract to meet the school demands, and supposedly for hiring of contract teachers, which have a separate budget line and work on lower salaries compared with regular teachers.

The shortage of teachers is combined with an incoherent distribution by province as reflected in provincial disparities in Pupil-Teacher Ratios (PTR)

According to the Afghanistan educational system the minimum education standard for teachers is graduation from grade 14. One of the main challenges that Ministry of Education is facing is insufficient number of professional teachers for different cycles of education.

Out of 193,044 teachers at different levels, 82,898 of the current teachers, equivalent to 43 %, fulfil the minimum standards of teaching and the remaining 57% who have not completed the criteria of professional teachers are recruited as contact teachers in remote areas due to the lack of teachers MoE has been making efforts to enhance the capacity of these teachers through short-term courses and recruiting them in the In-service Teacher Education programs to improve the quality of teaching and learning.

There are huge regional disparities in teacher qualification and sex. The current distribution of qualified teachers shows that urban centres and the Northern regions have a much larger proportion of qualified female teachers than other regions of the country.

A number of strategies, including targeted in-service training for CBE women in rural areas, have been piloted to address this imbalance. So far, however, the results have not been satisfactory. There are several reasons for this: ignorance of MOE teacher policy and incoherent incentives at PED and DED level undermine the efforts. In addition, the criterion of not contracting teachers with less than a grade 12 examinations prevents capable CBE teachers from being absorbed into MOE, despite the fact that many of these may be better teachers than formally qualified TTC graduates.

Monitoring of teachers is faced with a number of challenges including lack of transportation facilities, unqualified persons serving as supervisors, absence of a functional reporting and follow-up system, a tendency to censor negative reporting and a focus on inspection and control instead of academic support. There are very few female supervisors and parallel supervision systems within the General Education Deputy Ministry.

Promising attempts to address these challenges include increasing role of shuras in teacher monitoring. Well functioning shuras tend to increase the accountability of teachers as well as strengthening the demands side of education.

Nepotism and political interference in the recruitment of teachers is widespread all over the country. One of the planned measures to counter this phenomenon is to gradually diminish the role of District teacher training colleges in favour of a provincial based TTC.

Management of resources other than teachers

The majority of schools receive less than 75% of the number of books that they request for their students and the physical quality of the books is often poor. In order to cope with this shortage schools often encourage parents to buy books from the market. Market books are typically inferior

quality copies of official MOE books. In other cases, teachers just dictate notes that the students copy.

So far, the total and disaggregated number of textbooks and calculation of the Textbook to Pupil Ratio (TXPR) are not reflected in the MOE annual reports and EJSRs.

The effective teaching time in Afghanistan is severely limited by a large number of holidays, summer (15) and winter (90), examinations (52), and various celebration days. It has been suggested that the effective annual school year is as little as 180 days, which is in stark contrast to the number of school days in neighboring countries estimated at between 218 -228.

We do not have any data on the number of daily contact hours, but there seems to be potential gains to be made if effective teaching time could be ensured. In a study only 5% of students indicated that their teachers started lessons on time.

ECONOMIC IMPACT OF EDUCATION and LABOUR MARKET

Afghanistan's labour market suffers from a number of imbalances. On the supply side the labour force could be characterised as poorly educated, largely informal and lacking the requisite skills to develop their career further¹². Slightly more than two thirds of the labour force of 8.5 million is less than 40 years of age. 40 percent remains not gainfully employed (underemployed or unemployed) and 78 percent is in vulnerable employment. Meanwhile, a total of 6.8 million Afghans in the working age, mainly women (5.3 million), do not participate at all.

On the demand side agriculture accounts for two fifths of all employment, manufacturing for less than a tenth, while the recently more dynamic trade, transport, finance, real estate and insurance sectors account for a little less than a fifth. Agriculture, while the primary driver of economic activity in the districts, has a more limited impact in the urban centres. In a study of four districts only 3.7% of all surveyed urban-based individuals derive the largest share of household income from agriculture and only 1.5% of employers and employees were involved in the agriculture sector. Although important for day labourers, agriculture adds value to urban economies directly through trading and transportation and indirectly through income generation for the rural population.

In terms of qualifications, the findings from a study of four districts seem to have a general validity. The labour supply could be characterised as poorly educated, largely informal and lacking the requisite skills to develop their career further. Approximately 45% of surveyed employers and employees are either illiterate, literate with no schooling or were schooled up to primary school. The latest ALCS found that an overwhelming 61 percent of all employed have not been to school and only ten percent have attended school up to primary level. Consequently, nine tenths of the employed workforce is in unskilled occupations¹³.

Gender differences in labour market outcomes are stark: while participation rates are low (29 percent), unpaid family work and agriculture account for at least two thirds of female employment, and women's mean and median monthly earnings are much lower than men's in equivalent occupations. Comparison of labour indicators between 2007-08 and 2012-13 suggests that there has been a large shift of the labour force from working to unemployed, particularly in the urban sector. A substantial slowdown in growth constrained by persistent uncertainty surrounding political and security transition, increased levels of conflict and a downturn in aid, are likely to be underlying factors¹⁴.

We do not have any data on the employability of graduates from various types of vocational education and training. But there is a serious mismatch between the demand and supply of skilled

¹² Hall 2014: *Economic Assessment and Labour Market Survey of xxx provinces*, Mercy Corps ...

¹³ CSO, op.cit.

¹⁴ CSO op. Cit.

labour. So far, almost all attention in the formal TVET sector has been focused on the supply side, while the demand side has been neglected.

A World Bank paper summarises the barriers to matching the demand and supply: The mismatch between the demand and supply of skilled labour is a result of inadequate institutional response to policy needs. Among the barriers to matching demand and supply, the critical ones are as follows:

- Absence of a robust institutional system for the sector
- Poor quality of the skills delivery system
- Absence of reliable Labour Market Information
- Lack of linkage between the labour market and the TVET sector

The country's investment in education services is based on raising the productivity of society, in both economic and social aspects. It is the economic benefits gained through undertaking different levels of education, that accrue to the individual through improved lifetime income streams, to society through the higher productivity, and from a range of societal benefits and externalities. The public sector in investing in education, is seeking to achieve both economic and social benefits. Given the government's limited financial resources, obtaining cost benefit estimates on the returns to education, is a useful tool for policy and decisions on intra-sectoral allocations and investments. These returns are specific to the country context, and dependent on the characteristics of labor market supply and demand in that location.

An important question is whether and how much to invest in the education sector. Are there any economic gains to educating more people, or educating people more? Though there is no decisive method to answer such questions, we found some important clues in the NRVA dataset.

There was a weak correlation between the level of education attained by an individual, and whether or not they are employed in the service sector such as health, education, and NGOs (correlation coefficient = 0.34). The average individual, who was employed in the service sector, had 10.6 years of formal education. Thus, it is possible that people with higher education find it easier to shift from agriculture and blue-collar jobs to white-collar jobs. Women with tertiary education were also found to have a labour force participation rate of 78%, as compared to an overall female labour force participation rate of 19%.

SOCIAL IMPACT OF EDUCATION

A growing body of evidence suggests that the social returns to education are substantial. Education can reduce crime, improve health, lower mortality, and increase political participation. These studies suggest that the social return to education is similar to the private economic returns associated with higher lifetime earnings, which are also in the range of 7-10 percent. The implied social benefits from the impact of education are sizeable and clearly justify significant public subsidization of this activity.

There is substantial evidence suggesting that educational attainment improves health. In Afghanistan AMICS have reported on the effects of education on health and hygiene, use of sanitation facilities, infant mortality and nutritional status of children. In all cases, the impact of increased educational levels has proven to be high.

In terms of nutritional status we find that there is a strong correlation between the nutritional status of children and their mother's education. This is the case for the proportion of moderately or severely underweight (32 % for mothers with no education and 22 % for mothers with secondary education), the percentage of stunted (56 % against 43 %) and children "wasted" (too thin for their height) (18 % against 11 %).

While more educated societies tend to be more democratic, the question is whether education in itself actually improves citizenship and political engagement. In Afghanistan it has been difficult to find data linking levels of education to civic and social commitment. What is the connection between education and democracy on one side, and insurgency and religious extremism on the other? There are many assumptions, but few are underpinned by research evidence.

It is a widely held notion that uneducated and illiterate youth are more susceptible to the messages of radical Islam than more educated ones, but the correlation between education and democratic values is not necessarily a purely positive one: In an AAREU paper it was argued that not all young Afghans who obtained better education, training and skills over the past decade use their knowledge to help democracy take roots; many are vehemently against democracy and its essential pillar, popular elections.

Education is shown to have an effect on crime prevention and reduction. Research suggests that increases in education would reduce both violent and property crimes, and that the long-run impacts of early childhood and school-age interventions on juvenile delinquency and adult crime can be substantial for disadvantaged youth. The studies have also shown that education-based interventions and policies appear to reduce crime and delinquency most among the least able and most disadvantaged.

On the correlation between level of education and poverty the ALCS found that the household head's literacy and educational attainment level strongly correlate with poverty. Poverty rates are highest for people in households headed by an illiterate individual (46 percent), and poverty rates decrease steadily as the household head acquires more education. People living in households headed by individual with 'No education' are 1.5 to almost 3.5 times more likely to be poor than individuals living in households headed by someone with education above primary school. Even partial schooling at the primary level is enough to substantially reduce the likelihood of being poor.

There is a very strong correlation between female education and social benefits. Some of the most notable social benefits include decreased fertility rates and lower infant mortality rates, and lower maternal mortality rates. Closing the gender gap in education also increases gender equality, which is considered important both in itself and because it ensures equal rights and opportunities for people regardless of gender.

Educated women are more likely to engage in civic participation and attend political meetings, and there are several instances in which educated women in the developing world were able to secure benefits for themselves through political movements. Further evidence points to an increased likelihood of democratic governance in countries with well-educated women.

There are also benefits relating to the woman's role in the household. Educated women have been found to experience less domestic violence, regardless of other social status indicators like employment status. Women with an education are also more involved in the decision-making process of the family and report making more decisions over a given time period. In particular, these benefits extend to economic decisions. Besides the intrinsic value of increasing a woman's agency, having women play a more active role in the family also brings about social benefits for family members. In a household where the mother is educated, children and especially girls are more likely to attend school. In Afghanistan the proportion of children attending an organised ECD programme is 9.4 % for those with educated mothers against 0.7% for children whose mother has no education.

With the quality and availability of the existing data in Afghanistan it has not been possible to use cost-efficiency ratios for policy analysis and for guiding the intra-sectorial allocations to education.

On intra-sectorial allocations to education, however, some computations on educational investment from India suggest that the internal rates of return are highest for primary schooling (16.8) closely followed by literacy (15.9) and then middle level (13.7) and higher. The policy implications from these data suggest that significant resources should be allocated to the lower levels of education.

EQUITY

Equity in education looks at the proportional access to, and benefits from, educational services by socially distinct groups. The issue of equity can be examined from, e.g. the lenses of gender, geography, language and ethnicity.

Net enrolment rates in primary education have shown a steady increase from 1380 (2001) to 1394 (2013) and the gender gap has shown a small decline from about 24 % to 22%. The absolute gender gap increases by grade: from 18,5 % at grade 1 to 23,7 % at grade 12.

In addition to the gender gap there is a large gross enrolment gap between provinces: from less than 20% in Zabul, the province with the lowest performance, to 80% and above in the best performing provinces.

An age-based assessment confirms that literacy for the younger generations in Afghanistan has improved, and that, relatively, girls benefitted more than boys and have begun to catch up with them. Probably, in no previous generation has the gender gap for literacy been so small

The changes in educational opportunities since 2001 directly affected the gender equity indicators. Although both girls and boys benefitted from improved access to school, the relative impact for girls was much greater. The ratio of female-to-male literacy – sharply increases from just over 20 percent for persons around 30 years old (who were too old to effectively benefit from the change in 2001) to 70 percent for children around age 12. This figure indicates that at this age the share of girls that is able to read and write is 70 percent of the share of boys that is able to do so. In absolute terms, the gap between the male and female literacy rates is fairly stable around 36 percentage points from around age 23 to older ages up.

The ratio of girls to boys attending primary and secondary education is captured in the Gender Parity Index (GPI). The gender parity for primary school is 0.74, indicating a difference in the primary school attendance between girls and boys, with 74 girls attending primary school for every 100 boys. The GPI drops significantly at the secondary level to 0.49. The disadvantage to girls is particularly pronounced in the Southern region as well as among children living in the poorest households and in rural areas.

The chances for graduating are lower for female students than for male students. In 21 of the 35 provinces, female students have a 20% lower probability of graduating than male students (OR is less than 0.8). In five of the provinces, however, female students are actually more successful in graduating than male students.

Public expenditure on education is unevenly distributed among the provinces in Afghanistan. A study of MoE education expenditure for the period of 2011-2014 showed huge disparities across provinces in terms of average expenditure per pupil. In the 2014 fiscal year, 14 provinces received above the national average of recurrent expenditure per pupil. 12 provinces received 500 AFS or more below the national average recurrent expenditure per pupil and those provinces were in a very critical situation. The remaining 9 provinces received between 0-500 AFS less than national average.

Only 55% of children of primary school age (7-12) attend school. Attendance in urban areas is

78% while in rural areas it is only 50%. The proportion of children attending primary or secondary school increases with the child's age up to the age of 11. Attendance starts to decrease from age 12. Primary school attendance shows significant variance between children living in the poorest households (40% attendance) and those living in the wealthiest households (79% attendance).

About 32% of secondary school age children attend school. Secondary school net attendance ratio (NAR) for girls (21%) is more than two times lower than that of boys (43%). The NAR of rural secondary school age children is two times lower than their counterparts in urban areas. The attendance of secondary school children living in the poorest households is about four times lower than their counterparts living in the wealthiest households. Also, regional disparities in secondary NAR are significant.

In its October 2015 update of the NRVA it was suggested that welfare inequalities should be reduced by leveling the playing field for human development: It was found that inequality had played a major role in diluting the poverty-reduction effect during a period of economic growth and that massive inflow of international assistance targeted to high-conflict areas had contributed to widening geographic inequalities. Moreover, investments in rural areas did not contribute to poverty reduction as the poor lacked the human capital to take advantage of better employment. The NRVA update analysis concluded that with education and health levels among the lowest in the world, Afghanistan would need to continue expanding access and improving equity in education, health, and basic services to promote equal opportunity, inclusive job creation and broad-based growth. In particular, the country would need to reduce the educational disadvantage of poor children and girls.

DRAFT

Introduction

The Ministry of Education in Afghanistan, MOE is in the process of developing the next National Education Strategic Plan, NESP III 2015 – 2019. It has joined the Global Partnership for Education (GPE) and will seek a three-year Program Implementation Grant from the GPE. A requirement for such a grant is the development of a comprehensive Education Sector Analysis and a joint appraisal process of the education plan (NESP III) carried out by the local education donor group (LEG).

This Education Sector Analysis focuses on basic education grades 1- 12 but seeks to capture the vertical articulation between different levels of education from ECCD and Literacy to TVET and Higher Education (HE).

This is done taking into consideration a supply and demand perspective and a relevance and quality perspective on the provision of education across the whole sector. The ESA is structured in six major chapters on basis of the GPE Guidelines.

The methodology has comprised document review and analysis of datasets from MOE EMIS, CSO, NRVA and AMICS as well as from MOF MTEF. In addition, a limited number of interviews and consultations with MOE key staff, education sector stakeholders and DPs were administered.

A team coordinated by Pouras Consult Aps developed the ESA during August 2015 – January 2016. It comprised Mr. Poul Erik Rasmussen, Education Expert and Lead consultant, Mr. Allan Kelly, Economist, and Mr. Sadish Dhakal, Statistician.

A NOTE ON DATA AND ASSUMPTIONS

Since there has not been a national census in Afghanistan since 1979, we used a mix of sampled and population level data. We faced some limitations due to the nature of the datasets. For instance, the NRVA dataset (described below) underrepresents the female population¹⁵. The age groups in the dataset were also found to be clustered around numbers, which end in 5 or 10¹⁶.]

EMIS: This dataset was obtained directly from the Ministry of Education website (<http://moe.gov.af/en/page/1831/3031>) in August 2015. It contains actual data on the entire population of students and schools. Data at the province level for the General Education system was collated for the purpose of this report.

NRVA: The NRVA survey was conducted by the Central Statistics Organization between 2011-2012. This data was chosen for its representativeness. The CSO used the pre-census household listing from 2003-2005 as the sampling frame. The total sample size was 21,000 households. 35 strata were constructed—34 representing the provinces, and 1 representing the Kuchi population. 600 households per strata were chosen. Insecure areas were avoided and replaced by alternates.

AMICS: The AMICS dataset is collated from the AMICS report published by UNICEF in June 2012. About 13,468 households were sampled throughout Afghanistan for this survey. As with the NRVA data, this data is used in lieu of a national census. Alternates replaced insecure areas.

¹⁵ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

¹⁶ Ibid.

ABBREVIATIONS

AFMIS	Afghanistan Financial Management Information System
Afs	Afghanistan currency: the Afghani which is divided into 100 Puls
AKF	Aga Khan Foundation
AMICS	Afghanistan Multiple Indicator Cluster Survey
ANER	Adjusted Net Enrolment Rate
ANDS	Afghan National Development Strategy ("PRSP")
AREU	Afghanistan Research and Evaluation Unit
BEPA	Basic Education Programme (GIZ, Germany)
BESST	Building Education Support System for Teachers
CB	Capacity Building
CBE	Community Based Education
CBS	Community Based School
CD	Capacity Development
CEDAW	Convention on Elimination of All Forms of Discrimination Against Women
CPD	Continued Professional Development
CSO	Civil Society Organisation
CSO	Central Statistics Organization
Dar-ul-Ulums	Grade 13-14 of Islamic Education
DED	District Education Directorates
DM Literacy	Deputy Ministry for Literacy
DM TVET	Deputy Ministry for Technical and Vocational Education and Training
ECD	Early Child Development
ECCE	Early Childhood Care and Development
EDB	Education Development Board
EFA	Education for All
EJSR	Education Joint Sector Review
ELA	Enhancement of Literacy in Afghanistan
EMIS	Education Management and Information System
EQUIP	Education Quality Improvement Programme
ETR	Effective Transition Rate
FTI	Fast Track Initiative
GE	General Education
GER	Gross Enrolment Ratio
GMU	Grants Management Unit
GoA	Government of Afghanistan
ICT	Information and Communication Technology
IGoA	Islamic Government of Afghanistan
IIEP	International Institute for Educational Planning, Paris
IRoA	Islamic Republic of Afghanistan
HDR	Human Development Report (UNDP)
HRDB	Human Resource Development Board
ICT	Information and Communication Technology
ISAF	International Security Assistance Force
INSET	In-service Teacher Training
IT	Information Technology
LCEP	Learning for Community Empowerment Program
LEAP	Literacy Enhancement for Afghan Police
Madrasha	Islamic school for children
M&E	Monitoring and Evaluation

MAIL	Ministry of Agriculture Irrigation and Livestock
MDG	Millennium Development Goal
MoE	Ministry of Education
MoF	Ministry of Finance
MoHE	Ministry of Higher Education
MoI	Ministry of Interior
MOPH	Ministry of Public Health
MRRD	Ministry of Rural Rehabilitation and Development
NAPWA	National Action Plan for Women of Afghanistan
NDP	National Development Program
NER	Net Enrolment Rate
NESP	National Education Strategic Plan
NESP II	National Education Strategic Plan II (1389-1393)
NFEMIS	Non Formal Education Management Information System
NGO	Non Government Organisation
NPP	National Priority Programme
NRVA	National Risk and Vulnerability Assessment (2003; 2005; 2007-08; 2011-12)
ODA	Official Development Assistance
PACE-A	Partnership Advancing Community-based Education, Afghanistan
PC	Provincial Council
PED	Provincial Education Department
PRT	Provincial Reconstruction Team
PCR	Pupil Class Ratio
PRESET	Pre-service Teacher Training
PTR	Pupil Teacher Ratio
REU	Research and Evaluation Unit
SBS	Sector Budget Support
SCA	Swedish Committee to Afghanistan
Shura	Traditional Afghan committee structure, used for school councils (SMC)
SMC	School Management Committee, sometimes also named school Shuras
SWAp	Sector Wide Approach
SY	Solar Year
TA	Technical Assistance
Tashkil	Civil Service staff establishment
TB	Textbook
TTC	Teacher Training Centre
TVET	Technical & Vocational Education and Training
UNAMA	United Nations Assistance Mission to Afghanistan
UNDAF	United Nations' Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nation's Children Fund
UNSCR	United Nations Security Council Resolution

CHAPTER 1

CONTEXT OF THE DEVELOPMENT OF THE EDUCATION SECTOR

SECTION 1: THE SOCIAL, HUMANITARIAN AND DEMOGRAPHIC CONTEXTS

The Evolution of the Total Population and the School-Aged Population

1.1. Population

No population census has been conducted since 1979 in Afghanistan due to more than three decades of war and conflict. All population data available, therefore, are different projections based on the 1979 data sets.

According to The Central Statistics Organization (CSO)¹⁷ the total population of the country in 1394 (2015/16) is estimated to be about 28.6 million persons. (14.7 million men and 13.9 million women) and the settled population (excluding nomads) is estimated at 27.1 million persons. (13.2 million (49 %) female and 13.9 million (51 % male). 20.4 million persons (75.3 %) live in rural areas and 6.7 million (24.7 %) in urban areas. The nomadic population, according to the national multi-sector survey, which was conducted in 2004, was 1.46 million persons and the current CSO estimation of the nomadic population is 1.5 million persons.

For an accurate estimate of Afghanistan's total population, we looked at various sources. UN data from 2012 estimates the population to be 29.825 million and the population growth rate to be 2.4% per year. At this rate, the population in 2014 becomes 31.27 million and in 2015 becomes 32.024 million. Similarly, The World Bank estimates the 2014 population to be 31.28 million. Using UN's estimated population growth rate of 2.4% per year, the population in 2015 according to the World Bank becomes 32.03 million. However, the CSO estimates the population to be 28.6 million in 2015/2016. In the calculations below, we assume the following population for the given years:

Year	Population (millions)
2012	29.83
2013	30.55
2014	31.28
2015	32.03

The population of Afghanistan is overwhelmingly rural: the 19.4 million rural residents represent 71.8 percent of the total population. Only 22.7 percent (6.1 million) live in urban areas, whereas 5.4 percent (1.5 million) of the population is classified as Kuchi. The CSO population projection rates imply that since the NRVA 2007-08, the total population has increased with 2.0 million people, of which 1.2 million in urban areas and 828 thousand in rural areas. Due to the assumed counterbalancing effect of natural growth and settlement of the Kuchi, the size of the nomadic population remains stable at 1.5 million people, which implies a steady decrease in terms of its share in the overall population (down from 5.8 in 2007-08¹⁸).

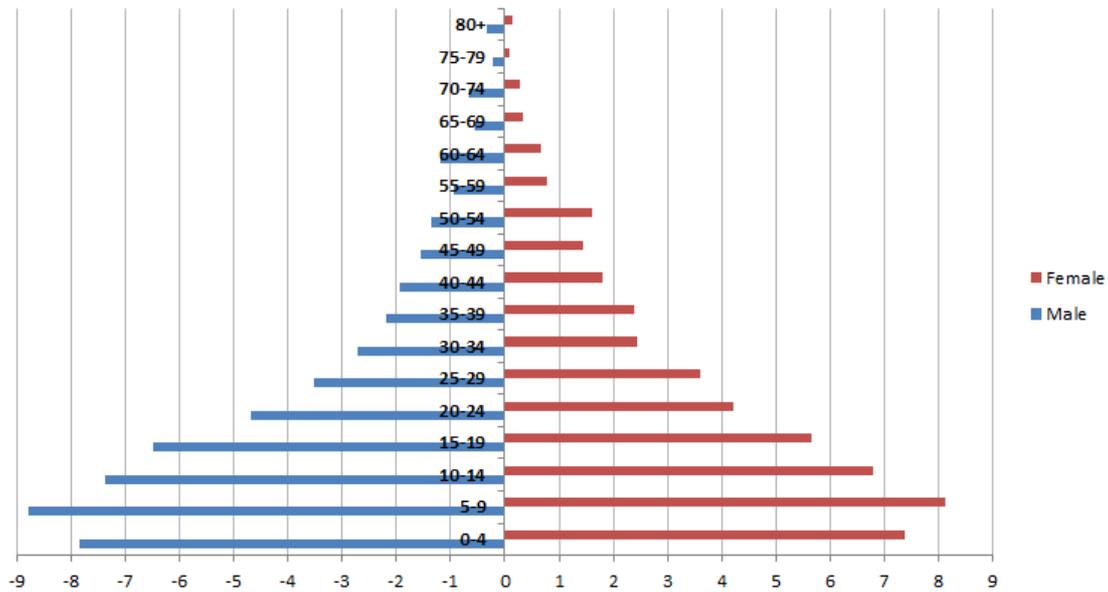
19

¹⁷ The Central Statistics Organization, CSO 2015

¹⁸ UNdata

¹⁹ NRVA 2013

Percentage of Population by Age-Group



The figure above shows the distribution of population by various age groups based on AMICS survey data.²⁰ A projection based on 2012 data from UN Department of Economic and Social Affairs, Population Division (found here: <http://populationpyramid.net/afghanistan/2015/>) as well as the NRVA report make estimates which are within 0.5% of our estimates for each age-group above.²¹We calculated the Gross Enrollment Ratio (GER) for grades 1-12 for the year 2012 using EMIS data on actual enrollment, and AMICS data to estimate the number of children of school-going age.

1.2 Basic Social Indicators²²

Poverty - % below poverty line

Poverty is widespread in Afghanistan. With about 36 percent of the population still consuming below the poverty line, it has not changed over the last five years. Poverty remains higher in rural areas and amongst the Kuchi population. Poverty has also remained unchanged within most regions, and significant changes in poverty are observed in only two regions: in the North-East, where poverty headcount increased from 36.4 to 50.9 percent, and in the North where it declined from 39.4 to 31.7. The average per capita consumption has increased. However, one of the explanations for the seeming stagnation of poverty over time is the widening inequality; consumption in richer parts of the population is growing faster. The top consumption quintile has experienced annual growth rates more than three times higher than the bottom one over the four years in between the latest two NRVA survey rounds. At the same time, inequality measured by the Gini index has increased from 29.7 to 31.6. As the labor endowment is one of the most critical assets for households, poverty is strongly correlated with household size and demographic composition, being the highest in households with higher dependency ratios. Similarly, education and employment status of the household head are matched with wide differences in poverty vulnerability. In particular, the analysis reveals that about 70 percent of the poor population

²⁰ Afghanistan Multiple Indicator Cluster Survey (AMICS), UNICEF, June 2012

²¹ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

²² UNdata, if no other source is mentioned

belongs to households headed by illiterate or uneducated individuals. Moreover, household head's underemployment, casual labor and employment in the farm or construction sectors are strongly correlated with higher poverty incidence.

There are three major poverty indexes that are calculated on the basis of poverty lines. The first is the headcount index, which represents the percentage of the population whose monthly per capita consumption expenditure are below the poverty line. This index is the most commonly used for poverty measurement mainly because of its simplicity and ease of interpretation. However, the major limitation of the headcount index is its insensitiveness to the "degree" of poverty, i.e. its inability to provide information as to whether the poor consume just or far below the poverty line. In fact, two populations with the same poverty headcount index might have totally different living standards in that in one, the poor are concentrated just below the poverty line, while in the other they have consumption levels well below the line. The second index used for poverty measurement is the poverty gap. This index represents the average distance between the consumption levels of the poor and the poverty line, thus capturing whether the poor have consumption just or far below the poverty line. The squared poverty gap, the third poverty measure, is similar in construction to the poverty gap but it differs in that it applies an increasing weight to greater distances below the poverty line, thus capturing the "severity" of poverty. The table below reports the evolution of poverty over time. It clearly indicates that poverty has not changed over time, irrespective of the poverty indicator used. In order to further confirm the lack of poverty changes over time, the table also reports the 95% confidence interval for each poverty estimate. At the national level and for each of the three poverty indicators, none of the differences over time is statistically significant at a 5-percent level.

The poorest segment of the population have not benefited from the general improvement in economic conditions. In particular, limited human capital endowments (literacy, education attainment) in poorer households might have prevented them from reaping the opportunities of better employment opportunities in the non-farm and (high-skill) service sector, resulting in stagnating poverty rates and widening inequality. As poverty is concentrated amongst households engaged in the agriculture, the sector's low productivity and the extreme volatility of agriculture production remain one of the biggest challenges to poverty reduction in Afghanistan.

Trends of poverty measures, by survey year

Poverty indicators	Survey year		95% Confidence Interval	
	2007-08	2011-12	2007-08	2011-12
Poverty headcount	36.3	36.5	[34.96, 37.62]	[34.84, 38.14]
Poverty Gap	7.9	8.6	[7.49, 8.31]	[8.11, 9.10]
Squared Poverty Gap	2.6	3.0	[2.39, 2.75]	[2.75, 3.19]

^a Provinces of Helmand and Khost were excluded from the original sample in both survey years.

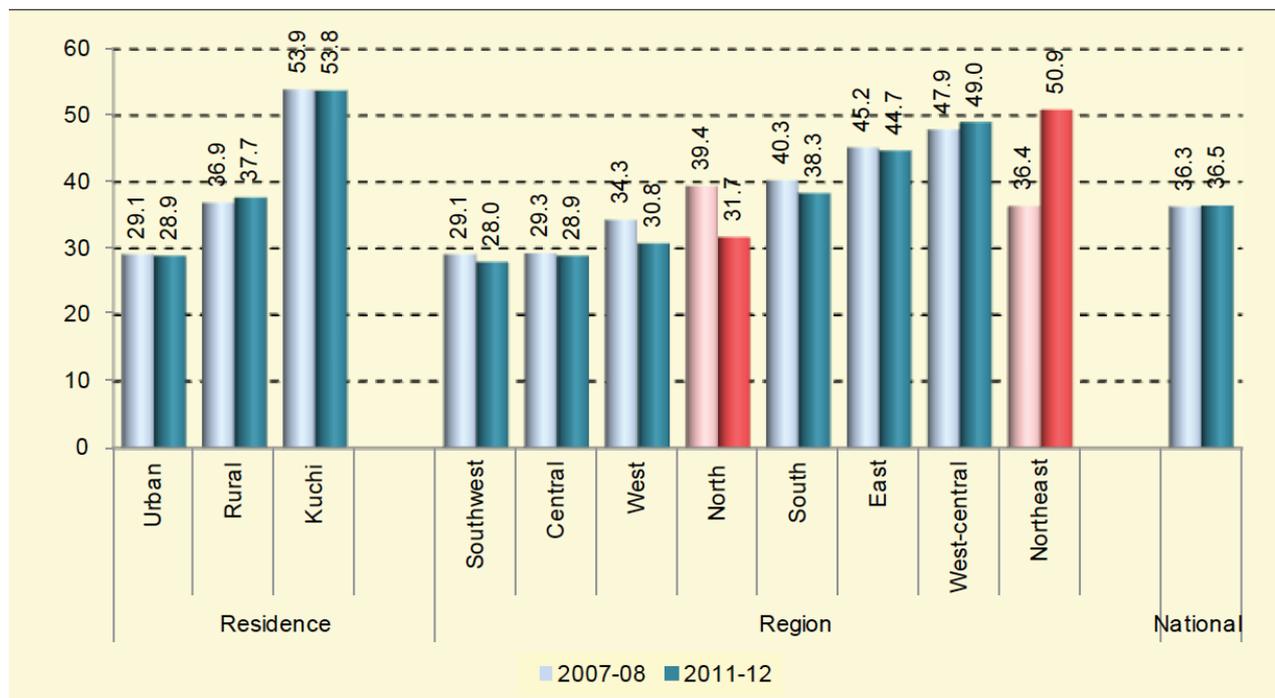
Source: NRVA 2013

There is wide variation in poverty in Afghanistan with large differences in poverty incidence by residence and by region. The variation in poverty between the rural, Kuchi and urban populations is significant and of great importance, and gender inequality is one of the highest in the world.

The 37.7 % incidence of poverty in rural areas is 9 percentage points higher than the urban one of 28.9 %. The nomadic Kuchi population is the most vulnerable to absolute poverty, with poverty

rates of 53.8 percent. Afghanistan has the lowest level of inequality in South Asia as measured by the Gini coefficient.

Trend of poverty headcount, by residence and region (in percentages) a, b, c



^a Central: Kabul, Kapisa, Parwan, Wardak, Logar, Panjsher; South: Ghazni, Paktika, Paktya, Khost; East: Nangarhar, Kunarha, Laghman, Nooristan; Northeast: Badakhshan, Takhar, Baghlan, Kunduz; North: Samangan, Balkh, Jawzjan, Sar-e-Pul, Faryab; West: Badghis, Herat, Farah; Southwest: Nimroz, Helmand, Kandahar, Zabul, Urozgan; West-central: Ghor, Bamyan, Daykundi.

^b Poverty estimates for South Region exclude Khost province in both survey years; poverty estimates for Southwest Region excludes Helmand province in both survey years.

^c Red bars indicate that the difference over time is statistically significant at a 5 percent level.

One of the explanations for the lack of poverty reduction over time in spite of an increase in average consumption is increasing consumption inequality. This is seen clearly from the following table indicating that while mean consumption increased 3.2 percent annually for the richest quintile, the corresponding growth rate in mean consumption for the poorest one was only 0.9 percent. As the same time, the consumption share of the poorest 40 percent of the population decreased from 22 to 21 percent to the benefit of top quintile's consumption share.

This can be seen in the figure depicting the five-year trend in the Gini index showing that recent economic growth has widened consumption inequality in Afghanistan. The Gini Index measures the extent to which the distribution of consumption among individuals or households differs from a perfectly equal one. A value of 0 represents absolute equality with everybody consuming the same amount, a value of 100 absolute inequality, where all consumption is concentrated in one person. The Gini Index increased nationally from 29.7 to 31.6, and inequality significantly widened in the rural and Kuchi sub-samples. At the regional level, inequality increased in the North, North-East, South and West Central regions, while decreased in the South-West.

Mean real per capita consumption (at 2011-12 prices), by poverty quintile

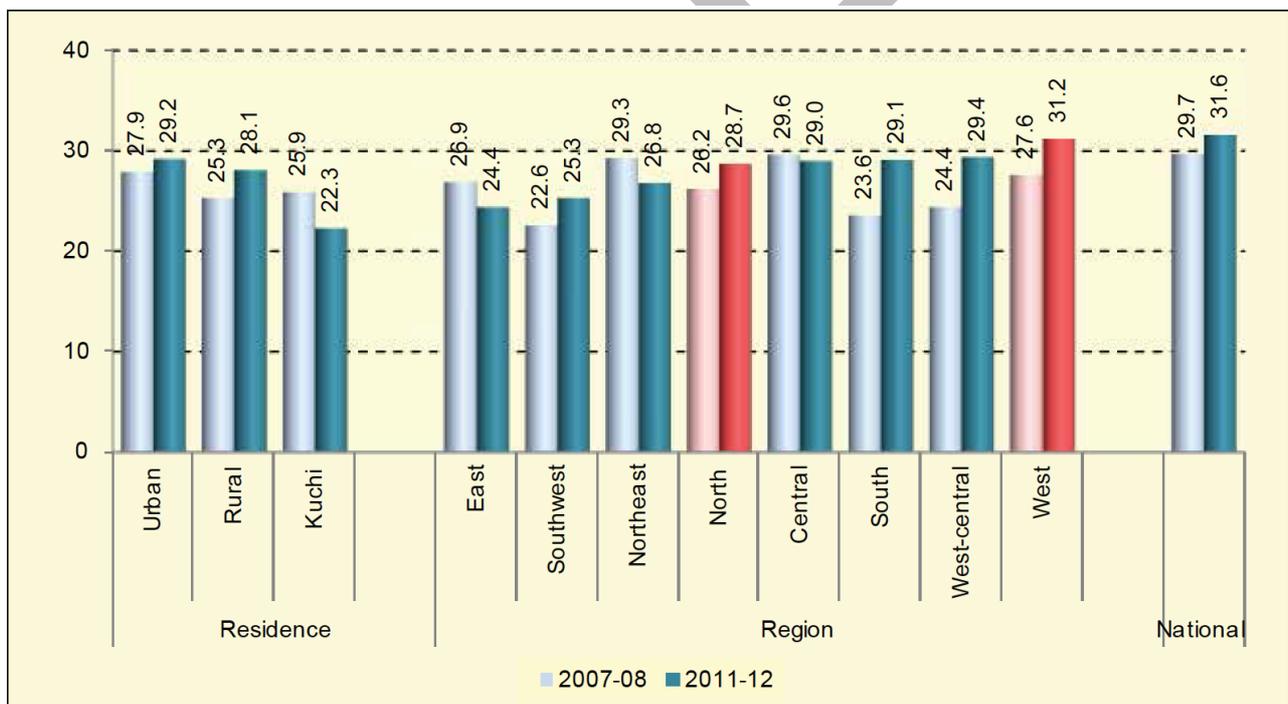
Quintile	Survey year		Annual growth (%)
	2007-08	2011-12	
Poorest	984	1,019	0.9
2	1,414	1,515	1.7
3	1,818	1,971	2.0
4	2,412	2,645	2.3
Richest	4,294	4,863	3.2
Total	2,184	2,403	2.4

^a The 2007-08 consumption has been inflated to 2011-12 prices using the inflation implicit in poverty lines by region-strata.

23

Despite these inequalities, the share of the poorest Afghan quintile in national consumption: meets the MDG Indicator 1.3: of 8.5 %

Trend of Gini index, by residence and region a, b, c



^a Central: Kabul, Kapisa, Parwan, Wardak, Logar, Panjsher; South: Ghazni, Paktika, Paktya, Khost; East: Nangarhar, Kunarha, Laghman, Nooristan; Northeast: Badakhshan, Takhar, Baghlan, Kunduz; North: Samangan, Balkh, Jawzjan, Sar-e-Pul, Faryab; West: Badghis, Herat, Farah; Southwest: Nimroz, Helmand, Kandahar, Zabul, Urozgan; West-central: Ghor, Bamyan, Daykundi.

^b Poverty estimates for South Region exclude Khost province in both survey years; poverty estimates for Southwest Region excludes Helmand province in both survey years.

^c Red bars indicate that the difference over time is statistically significant at a 5 percent level.

Household demographic and socio-economic characteristics are important correlates of poverty. In particular, this section presents results as to how poverty correlates with household size or

²³ In the table "Total" should read "average". The total for 2011-13 was 12.013, From: National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

dependency ratio at the household level as well as the education and employment characteristics of the household head. While causality cannot be established, these results are important for guiding future analysis of poverty determinants.

The youngest segments of the population are over-represented amongst the poor. Children below 15 represent a larger share of the poor than of the total population – a result in line with the finding that larger households and with relatively more dependents are more likely to be vulnerable to the risk of poverty. As labor endowment is often the only form of capital available to relatively poorer households, a higher child dependency ratio at the household level is normally associated with higher poverty rates.

Household head characteristics

Low level of education of the head of household is one of the strongest determinants of poverty. As shown in the following table on household characteristics, the head's literacy status and education level are strongly correlated with the risk of poverty. Poverty rates for individuals living in households with an illiterate head are 14 percentage points higher than those of individuals living in households with a literate head (41.6 and 27.6 percent respectively). Similar results emerge when looking at the head's education attainment: poverty rates are the highest for individuals living in households with an uneducated head (42.1 percent). Interestingly and possibly correlated with the low level of education at the aggregate level in the economy, even partial schooling at the primary level is enough to substantially reduce poverty rates.⁶ Taking the poor population as a whole, more than 70 percent of poor individuals come from households whose heads have no education or are illiterate.

Poverty headcount, poor- and total population shares, by sex and education related characteristics of household head (in percentages)

Household head characteristics	Poverty headcount	Share of poor population	Share of total population
Male	36.4	99.3	99.6
Female	54.7	0.7	0.5
Literate	27.6	27.7	36.6
Illiterate	41.6	72.3	63.5
No education	42.1	73.0	63.0
Incomplete primary school (less than grade 5)	31.9	4.0	4.6
Completed primary school (grade 5 or higher)	30.9	9.0	10.6
Completed lower secondary school	25.9	3.5	4.9
Completed upper secondary school	22.9	6.1	9.8
Completed teacher college or technical college	27.1	1.5	2.0
Completed university or post-graduate	14.7	0.9	2.3
Attended or completed Islamic school	25.9	1.6	2.3

²⁴

²⁴ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

Labor market characteristics of the household head are another important correlate of poverty. Poverty headcount is the highest amongst individuals in households whose head is underemployed. The highest incidence of poverty associated with underemployment – as opposed to unemployment – is in line with previous findings from NRVA 2007-08 (Islamic Republic of Afghanistan, Ministry of Economy, and the World Bank 2010) showing that individuals in poorer households cannot “afford” being unemployed and are more likely to be engaged in some form of income generating activity, irrespective of its quality, to simply make ends meet.

Poverty headcount, poor- and total population shares, by labor market characteristics of household head (in percentages)

Household head characteristics	Poverty headcount	Share of poor population	Share of total population
Employed	35.0	66.6	69.6
Underemployed	41.6	17.3	15.2
Unemployed	39.4	5.0	4.6
Inactive	38.2	11.2	10.7
Day labourer	52.1	30.4	21.1
Salaried worker, private sector	31.4	6.7	7.6
Salaried worker, public sector	29.8	9.9	12.0
Self-employed	32.8	47.9	52.8
Employer	18.2	0.6	1.1
Unpaid family worker	30.8	4.6	5.4
Agriculture	38.7	32.3	30.1
Livestock	44.0	8.1	6.7
Manufacturing/processing	31.9	2.6	2.9
Construction	42.8	12.1	10.2
Wholesale and retail trade	27.0	9.9	13.2
Transportation and communication	23.9	5.4	8.2
Health	20.1	0.6	1.1
Education	32.4	3.4	3.8
Other government services	27.4	5.8	7.6
UN/NGOs	15.6	0.7	1.6
Other services	47.3	19.1	14.6

25

²⁵ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

Looking at categories of employment, daily labor is confirmed to be associated with higher poverty rates. The poverty headcount for individuals in households with a day laborer head are more than 20 percentage points more likely to be poor than those in households with a salaried head in either public or private sector jobs. Among the sector of employment, having the head working in agriculture or in livestock production is strongly correlated with poverty, in line with the relatively higher poverty rates registered in rural areas and especially amongst the Kuchi population. In particular, the emerging poverty profile and the lack of progress in poverty reduction over time could be explained by the significant contraction of agriculture production at the time of NRVA 2011-12 data collection. The construction sector also emerges as particularly vulnerable, possibly reflecting the higher incidence of casual and poor quality types of jobs in this sector.

Literacy

Afghanistan has one of the lowest literacy rates in the world. Age 15 + had a male literacy rate of 62 and a female of 18 against the median value for low income countries of M 70 and F 57 respectively²⁶.

While MoE is the primary authority responsible for developing and implementing strategies to achieve the target for the national literacy rate of 60% (50% female and 70% male) through the Deputy Ministry of Education for Literacy, the MoE EMIS does not capture literacy rates. Hence, these are based on NRVA data. The following table²⁷ gives an overview of the most current statistics, disaggregated by population/location and gender:

Literacy Rates by Gender and Area of Residence

%	Urban	Rural	Kuchi (migrant)	National
<i>Gender</i>				
Male	68.7	39.1	13.2	45.4
Female	37.9	10.4	1.2	31.4
M+F	53.5	25.0	7.2	31.4

Source: NRVA 2011-12

The level of literacy depends on the population figures used from which to extrapolate survey data. According to the National EFA 2015 Review AMICS provided the lowest figure for the literacy rate at 31.4% (F-17, M-45), while the Ministry of Education calculated it as 36% (F-20, M-50). However, despite slight variation, the scale of the literacy challenge is evident. While levels of literacy have improved over recent years (NRVA 2008 placed overall literacy at 26%) there remain at least 11 million Afghans age 15 and above suffering from literacy inequalities. In addition to the severity of the issue, literacy rates are marked by large geographical variation and gender disparities. While urban areas and regions of relative economic security can expect a literacy rate of over 30%, the more remote and insecure areas have levels of literacy closer to 15%. Equally, stark variations in the gender parity are evident across the country.

Literacy Among Young Women

²⁶ EPDC Afghanistan NEP 2014

²⁷ From Afghanistan National EFA 2015 Review

Only one in five women in Afghanistan is literate and women's literacy rate in rural areas is three times lower than in urban areas. In the AMICS, since only a women's questionnaire was administered to adults, the results are based only on responses from females aged 15-24. Literacy was assessed based on the ability of women to read a short simple statement, or based on her highest school level attained. In the AMICS, a woman who attended secondary school or higher was counted as literate. A woman who did not attend secondary school or higher was given a sentence to read. She was counted as literate if she could read the entire sentence.

Literacy among young women

DRAFT

Percentage of women age 15-24 years who are literate, Afghanistan, 2010-2011			
	Percentage literate ¹	Percentage not known	Number of women age 15-24 years
Region			
Central	40.5	0.3	1,762
Central Highlands	34.6	0.1	343
East	16.4	0.1	866
North	24.2	0.5	1,257
North East	20.8	0.0	1,799
South	2.7	0.0	1,259
South East	16.1	0.1	1,121
West	21.9	0.6	1,213
Residence			
Urban	51.6	0.6	1,868
Rural	15.1	0.1	7,752
Education			
None	1.1	0.1	6,749
Primary	28.9	1.1	1,135
Secondary +	100.0	0.0	1,733
Age			
15-19	27.7	0.3	5,510
20-24	14.8	0.2	4,110
Wealth index quintile			
Poorest	5.1	0.1	1,673
Second	10.6	0.1	1,797
Middle	13.0	0.0	1,875
Fourth	23.8	0.3	2,029
Richest	50.3	0.4	2,245
Total	22.2	0.2	9,620
¹ MICS indicator 7.1; MDG indicator 2.3			

28

The table above shows that less than one in five women in Afghanistan are literate and that the women's literacy rate in rural areas is more than three times lower than in urban areas. Of women who stated that primary school was their highest level of education attained, only 29% were actually able to read the sentence shown to them. Literacy among women living in the poorest households is 10 times lower than their counterparts in the wealthiest quintile.

²⁸ Afghanistan Multiple Indicator Cluster Survey (AMICS), UNICEF, June 2012

School Readiness

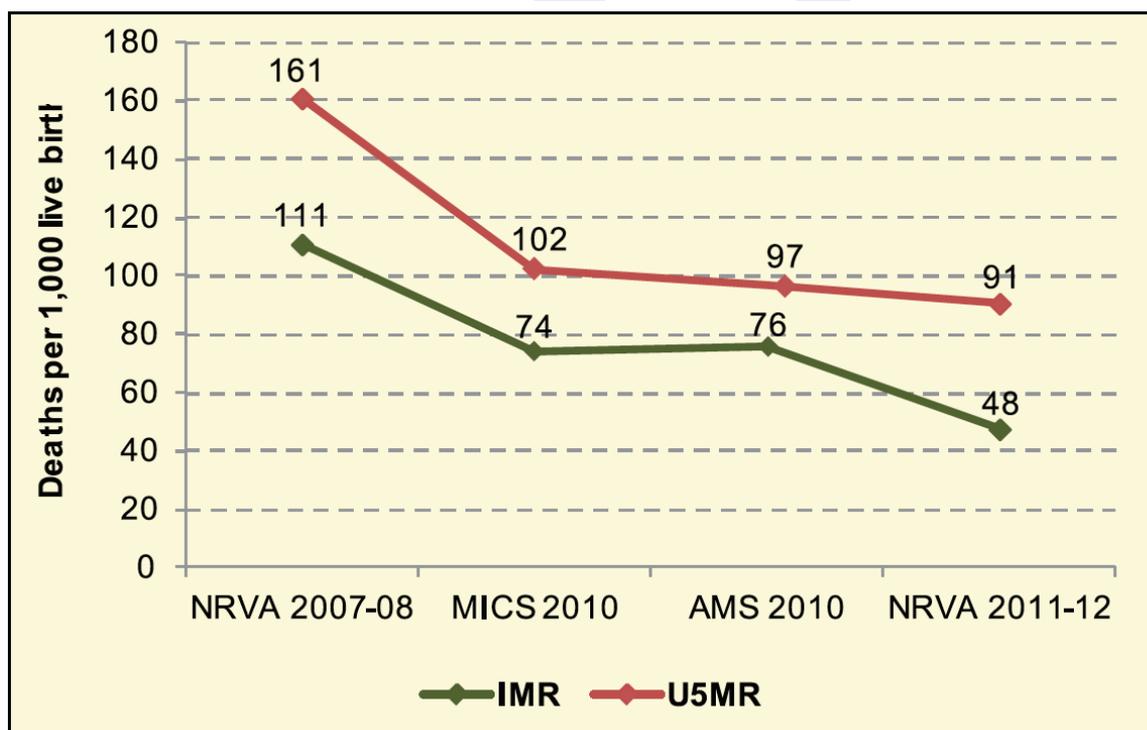
Attendance in pre-school education in an organized learning or child education programme is important for achieving children's school readiness, and later progress in schooling is often associated with cognitive abilities acquired at a young age.

In Afghanistan, less than one in five children attend pre-school. Only 13% of children who were attending the first grade of primary school in the 2010/2011 school year were attending pre-school the previous school year. The proportion of children in rural areas (11%) who had attended pre-school the previous year is almost twice as low as children living in urban areas (20%). Regional differentials are also very significant. First graders in the Central Highlands region are six times less likely (5%) to attend pre-school than their counterparts living in the Eastern region (31%).

Infant mortality rate (IMR) and Under-five Mortality Rate (U5MR)

The Infant Mortality Rate (IMR) is defined as number of deaths to children under twelve months of age per 1,000 live births. The Under-five Mortality Rate (U5MR) relates to the number of deaths to children under five years of age per 1,000 live births.

The U5MR is estimated at 91 deaths per thousand live births and the IMR at 48 deaths per thousand live births. For both indicators, a considerable gap exists between urban and rural populations. On the other hand, little gender difference is observed, and surprisingly the U5MR for boys is below that of girls.



29

MDG Indicators 4.1 for U5MR is: 91, while the MDG Indicator 4.2 for IMR is : (48).

In AMICS:

²⁹ NRVA 2011-2012

The infant mortality rate is 74 (M/F 78/68).

The under-five mortality rate is 102 (M/F106/97). The male infant mortality is higher than the female rate because biologically, male infants are more vulnerable than female infants.

Life expectancy at birth f/m: 62.0/59.5

Afghanistan's Maternal Mortality Ratio (MMR), was estimated at 1,600 to 1,900 maternal deaths per 100,000 live births, and was the second highest in the world, next to Sierra Leone in 2008. Due to major health efforts by government and NGOs, women's mortality rate at birth has gone down from 1600 per 100,000 ten years ago to 327 in 2014.³⁰ Nonetheless, infant mortality remains the highest in the world at 117.23 deaths per 100,000.³¹

Nutrition

The majority of children in Afghanistan suffer from malnutrition. Most are underweight but more than one in five is overweight. In both cases malnutrition is negatively correlated to the mother's education.

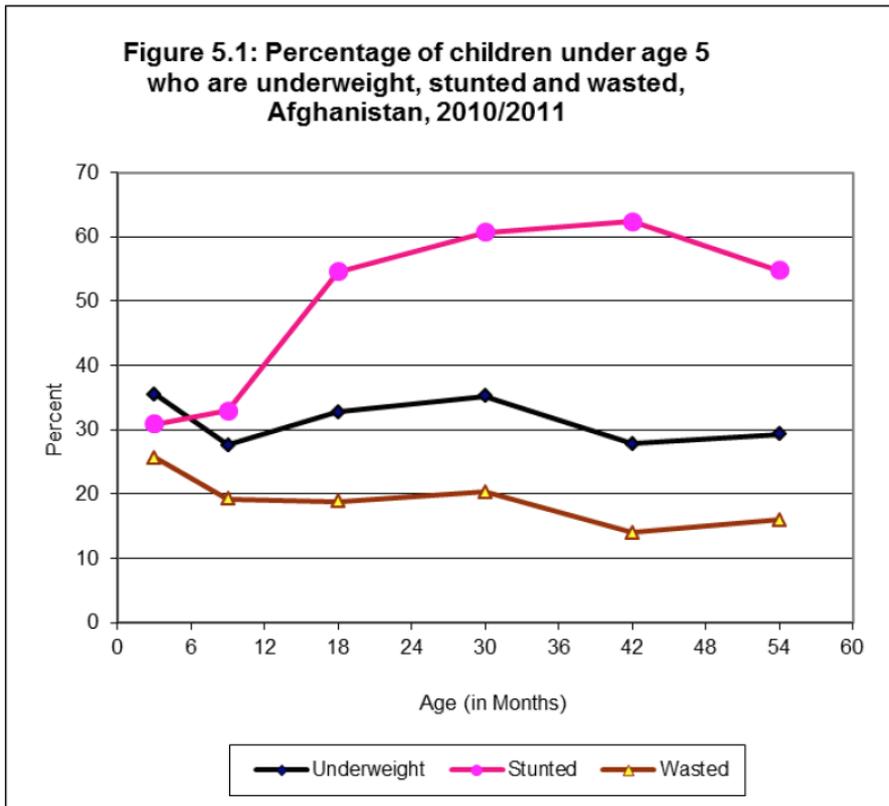
Almost one in three children under age five in Afghanistan are moderately or severely underweight (31%). More than a half of children (55%) are moderately or severely stunted or too short for their age, and 18% are moderately or severely wasted or too thin for their height. Children in the Southern region are more likely to be underweight, stunted and wasted than other children. Those children whose mothers have secondary or higher education are the least likely to be underweight, stunted, and wasted compared to the children of mothers with no education. More boys appear to be underweight, stunted, and wasted than girls.

Obesity on the other hand, is a problem among children in the Northern and South Eastern regions where up to 24% are overweight. Notably, children living in relatively poor households in rural areas are inclined to be overweight (21% of children in the poorest wealth quintiles, and 17% in the richest quintiles). The overweight prevalence of obesity is higher among children whose mothers have less education (21% of children whose mothers have no education, and 17% for mothers with secondary or higher education)³².

³⁰ United Nations World Food Program, (2013) "Afghanistan: Overview," p. 1.

³¹ Index Mundi, (2014) "Afghanistan Infant Mortality Rate," p. 1. Geeti Moliseni, "Maternal Mortality Decreases in Afghanistan." TOLONews.com. dl November 22, 2014.

³² AMICS



Source AMICS 2014

Fertility rate (live births per woman): 5.0

1.3 Impact of HIV/AIDS and Malaria on Education

The prevalence of HIV/AIDS is relatively low in Afghanistan and its impact on education is negligible. It is estimated that between 2,000 to 3,000 people may be living with the deadly virus in Afghanistan³³. The Ministry of Health stated that most of the HIV patients were among intravenous drug users and that 70% of them were men, 25% women, and the remaining 5% children. They belonged to Kabul, Kandahar and Herat, the provinces from where people make the most trips to neighboring or other foreign countries³⁴.

The impact of malaria on education is not known. About half of the population in Afghanistan, 49 % is exposed to malaria but the transmission rates are low (0–1 cases per 1000 population). About 27% are exposed to high transmission (> 1 case per 1000 population), while 24% are malaria-free (0 cases)³⁵.

In 2008 Afghanistan had the second highest number of malaria cases in the Eastern Mediterranean Region, according to the UN World Health Organization (WHO). The MoPH and WHO estimate that every year up to 1.5 million cases of malaria occur throughout the country, but most go undiagnosed³⁶.

³³ Pajhwok Afghan News, Dec.2 2012, cit. From Wikipedia/Demographics of Afghanistan

³⁴ Ibid.

³⁵ World Malaria Report 2014

³⁶ Irinnews.org: "AFGHANISTAN: Over half the population at risk of malaria - Health Ministry"

Disability

Disability is defined by social and cultural norms, and what is considered “disability” in a given context is not necessarily the case in another (c.f. WHO definition below). In Afghan culture, disability is perceived differently according to gender differences, traditional or ethnic attitudes and religious motives, and even the person’s economic status.

The National Disability Survey in Afghanistan (NDSA)³⁷ was the first household survey on disability that attempted to utilize the capabilities approach. The capabilities approach places the definition of disabilities within the wider spectrum of human development. The focus is not anymore on the disabling situation but on the equality in terms of choices offered to an individual. It provides further insight into the issues related to disability since it highlights not what a person actually does (functioning) but the range of possibilities that he/she chooses that specific functioning from – this is the capabilities set [Sen A., 1999].

2/ Disability Statistics	
Population of persons with disabilities	800,000
Proportion of persons with disabilities to total population	2.7 per cent
Employment rate of persons with disabilities	70 per cent of persons with disabilities aged over 15 years are unemployed
Access to education	73 per cent of persons with disabilities above six years of age do not receive any education
3/ Definitions	
Definition of disability	WHO International Classification of Functions Guidelines “Disability is the outcome of the interaction between a person with an impairment (which can be acquired or congenital), the environment (for example architectural barriers) and cultural attitudes (prejudice). Disability is a state that may be modified, by reducing impairment, changing attitudes or adapting the environment.”

38

Disability and Education

According to AAOD: Accessibility Organizations for Afghan Disabled, ninety five percent of children with disabilities in Afghanistan do not attend schools due to inaccessible environment. The literacy rate for adults and children with disabilities is very low because of inadequate attention to and lack of literacy education facilities in the country.

³⁷ This study was carried out between December 2004 and July 2005 by Handicap International in collaboration with the Ministry of Martyrs and Disabled and Social Affairs (MMDSA), the Ministry of Public Health (MoPH) and the Central Statistic Office (CSO)

³⁸ www.unescapsdd.org/files/DPC Afghanistan.doc

Students with disabilities who graduated from higher education have largely remained jobless and it is very difficult to find jobs due to the lack of support from the local and central government. By law the government of Afghanistan has a 3% employment quota for disabled Afghans for working in both government and private sectors, but the policy is not implemented yet.³⁹

1.4 The Composite Social Context Index

The **Human Development Index (HDI)** is a composite statistic of life expectancy, education, and per capita income indicators, which is used to rank countries into four tiers of human development.

Afghanistan is depicted in the Low human development group. It belongs to the least developed countries and was ranked number 169 on the HDI. Its HDI value in 2013 was 0.468 against the regional South Asian average of 0.588

HDI rank	Human Development Index (HDI)										HDI rank		Average annual HDI growth		
	Value										Change		(%)		
	1980	1990	2000	2005	2008	2010	2011	2012	2013	2012	2008–2013 ^a	1980–1990	1990–2000	2000–2013	
Low human development	0.345	0.367	0.403	0.444	0.471	0.479	0.486	0.490	0.493	—	—	0.64	0.95	1.56	
South Asia	0.382	0.438	0.491	0.533	0.560	0.573	0.582	0.586	0.588	—	—	1.37	1.16		
Least developed countries	0.319	0.345	0.391	0.429	0.457	0.472	0.480	0.484	0.487	—	—	0.79	1.26	1.70	
169 Afghanistan	0.230	0.296	0.341	0.396	0.430	0.453	0.458	0.466	0.468	169	1	2.56	1.42	2.46	

Source: UNDP Human Development Report 2014

Since 2011 Human Development Reports UNDP has added an inequality-adjusted human development index (IHDI) in its reports. According to the 2010 Report, "the IHDI is the actual level of human development (accounting for inequality)" and the unadjusted calculations for the HDI "can be viewed as an index of potential human development (or the maximum IHDI that could be achieved if there were no inequality)".⁴

For Afghanistan the IHDI shows a 7-point increase in its overall ranking, despite its low level of inequality as measured by the Gini Index. This is probably a reflection of its relatively equal distribution of high levels poverty across the country. More surprising is its high level of inequality in education, 45.0 % against the South Asian average of 41.6 and an average of 38.2% in the Low human development group. A possible explanation could be the very high gender inequality in Afghanistan. In comparison, inequality levels amongst Very high and Medium human development countries are 8.7 % and 17.4 % respectively.

HDI rank	Human Development Index (HDI)	Inequality-adjusted HDI (IHDI)			Coefficient of human inequality		Inequality-adjusted life expectancy index		Inequality-adjusted education index		Inequality-adjusted income index		Income inequality		
	Value	Value	Overall loss (%)	Difference from HDI rank ^b	Value	(%)	Value	(%)	Value	(%)	Value	Quintile ratio	Palma ratio	Gini coefficient	
	2013	2013	2013	2013	2013	2013	2013	2013 ^c	2013	2013 ^c	2013	2003–2012	2003–2012	2003–2012	
Human Development Index groups															
Very high human development	0.890	0.780	12.3	—	12.0	4.9	0.881	8.7	0.769	22.4	0.702	—	—	—	
High human development	0.735	0.590	19.7	—	19.3	10.7	0.749	17.4	0.531	29.9	0.517	—	—	—	
Medium human development	0.614	0.457	25.6	—	25.2	21.9	0.575	35.1	0.331	18.6	0.502	—	—	—	
Low human development	0.493	0.332	32.6	—	32.4	35.0	0.394	38.2	0.241	23.9	0.387	—	—	—	
South Asia	0.588	0.419	28.7	—	28.0	24.4	0.549	41.6	0.274	18.0	0.489	—	—	—	

³⁹ <http://www.aoad-af.org/>

Source UNDP HDR 2014, p. 170

1.5 Linguistic and Religious Context

There is a diverse range of ethnic groups within the country. Of the 32 million Afghan residents, 42% are Pashtun, 27% Tajik, 9% Hazara, 9% Uzbek, 4% Aimak, 3% Turkmen, 2% Baloch and 4% fall into an unspecified "other" group. The Afghan government recently began issuing ID cards that state the ethnicity of each citizen, which should eventually reveal more precise numbers about the many ethnic groups in the country.⁴⁰

Pashto and Dari are the official languages of Afghanistan. Dari (Afghan Persian) is spoken by 50% of the population and serves as the lingua franca in Kabul, Herat, Mazar-i-Sharif and other cities in northern and north-western Afghanistan, mostly in Tajik and Hazara areas, while Pashto is spoken by 35%, mostly in the South-Eastern Pashtun areas of the country where ethnic Pashtuns are the majority. Turkmen and Uzbek are spoken by 11% in the northern regions of the country, while 4% speak 30 other languages including Arabic. Many residents of the country are multilingual⁴¹.

The Afghan constitution states that Islam is the "religion of the state". Both Shia and Sunni Islam are accorded equal recognition, while followers of other religions are free to exercise their faith and perform their religious rites within the limits of the provisions of law.⁴²

Almost the entire Afghan population is Muslim, with less than 1% being non-Muslim. Muslims account for 99% of the population of Afghanistan, with between 80% and 89% practicing Sunni Islam while 10-19% are Shia. There are zero public Christian churches in Afghanistan⁴³. Despite attempts to secularize Afghan society, Islamic practices pervade all aspects of life. Likewise, Islamic religious tradition and codes, together with traditional practices, provide the principal means of controlling personal conduct and settling legal disputes.

1.6 Humanitarian context

Conflict

Afghanistan ranks 160 out of 162 in the 2015 Global Peace Index. It is only surpassed by Iraq and Syria. Against the backdrop of the withdrawal of most international forces from Afghanistan during recent years, the number of deaths from internal conflict in the country rose last year in tandem with an increase in political terror. Crucially, the uncertainty stemming from the shift in responsibility for security from foreign troops to Afghan forces means that the chances of sustained internal conflict remain high.

Afghanistan's ranking in the South Asian context is given in the table below:

⁴⁰ Encyclopedia Iranica: "Afghanistan languages " From Wikipedia/Demographics of Afghanistan

⁴¹ Ibid.

⁴² www.state.gov/documents/organization/171751.pdf

⁴³ Afghanistan Population, World Population Review 2015

TABLE 8 SOUTH ASIA RANKINGS

SOUTH ASIA	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Bhutan	18	1.416	-0.027	1
Nepal	62	1.882	-0.078	2
Bangladesh	84	1.997	-0.058	3
Sri Lanka	114	2.188	+0.073	4
India	143	2.504	+0.057	5
Pakistan	154	3.049	+0.009	6
Afghanistan	160	3.427	+0.056	7
AVERAGE		2.352		

Source: Global Peace Index 2015

Perception analyses of well-being

According to The Asia Foundation's Survey of the Afghan People 2014, Afghanistan's biggest problems at the national level are: Insecurity (34%), corruption (28.4%), unemployment (25.7%), the economy (10.8%), and access to education and illiteracy (7.6%) are the most frequently cited national problems. While this list of issues has remained fairly constant over the years, the biggest increase this year is in the number of people who say insecurity is the biggest problem (34.0% in 2014 compared to 29.8% in 2013). Insecurity is cited most often in the West region (42%) and least often in the North East region (24.5%).

Fear for safety has been on an overall upward trend since 2006. In 2015 more than two-thirds (67.4%) of Afghans report that they always, often, or sometimes fear for their personal safety or that of their family., the highest percentage in a decade. This rate is highest in the South West (84.6%) and South East (81.1%) regions, where clashes with AOGs have been most frequent. In the West region, however, the percentage of Afghans reporting fear for their safety has decreased by more than 10 percentage points (to 68.5%) since 2014.⁴⁴

The most frequently cited national problem is insecurity (42.7%), up from 34.1% in 2014 and at its highest level since 2007. The most frequently cited local level problem is unemployment (31.2%). However, the percentage of Afghans citing insecurity as a local problem (22.0%) is at its highest level since the survey began.

When asked what are the biggest problems facing women, Afghans identify education and illiteracy (20.4%) and unemployment/lack of job opportunities (11.3%) as the two main problems

⁴⁴ Survey of the Afghan People 2015. The Asia Foundation

facing women. However, the frequency with which they have been cited has declined since 2014, while the percentage of Afghans who cite a lack of women's rights has increased from 6.2% in 2014 to 8.7% in 2015. In general, men and women point to the same challenges facing Afghan women, with the exception of the issue of domestic violence, which is more often mentioned by women (13.0%) than by men (8.1%).

In 2015, 36.7% of respondents nationwide say their country is moving in the right direction, down from 54.7% in 2014. This represents the lowest level of optimism recorded over the past 10 years, following last year's record high during the presidential runoff election. Overall optimism has decreased across all regions, and is lowest in the Central/Kabul (27.8%) and North West (30.5%) regions. This year, Afghans in Helmand province (62.1%) are the most optimistic about the overall direction of the country, and residents of Kabul province (22.5%) are the least optimistic.

When asked why the country might be moving in the right direction, Afghans point to the following reasons for optimism: reconstruction (31.8%), followed by good security (28.5%). The percentage of respondents citing good government (10.5%) has increased four percentage points since 2014. Good security is most likely to be cited as a reason by Afghans in the Central/Hazarajat (39.9%), South West (33.7%), and East (29.9%) regions, while other regions are more likely to cite reconstruction as their top reason for optimism.

Among the 57.5% of Afghans who say their country is moving in the wrong direction, the most frequently cited reason is insecurity (44.6%, up six percentage points from 2014), followed by unemployment (25.4%), corruption in general (13.0%), a bad economy (12.4%), and bad government (11.4%). The percentage citing bad government increased from 4.9% in 2014, while the percentage citing administrative corruption decreased from 9.6% in 2014 to 4.6% in 2015.

Birth Registration

The International Convention on the Rights of the Child (CRC) states that every child has the right to a name and a nationality, and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The AMICS indicator related to birth registration is the percentage of children under five years of age whose birth is registered.

The births of only 37% of children under five years of age in Afghanistan have been registered. There are no significant variations in birth registration between boys (38%) and girls (37%), however there are significant variances observed by the age of the child, the mother's education level, residence, region and household socio-economic status. Children aged four years (35%) have the lowest rate of registered births, while children aged one year have the highest registration rate.

Educated mothers are more likely to register the births of their children. About 67% of children whose mother has secondary education or higher had their children's births registered, almost double that of mothers with no education, wherein only 36% of births were registered. Children living in rural areas (33%) are about two times less likely to have their births registered than their counterparts in urban areas (60%). Children in the South East region (19%) are more than three times less likely to have their births registered than children in the Central region (60%). There are also regional disparities in the percentage of mothers/caretakers who know how to register a birth. For instance, 12% of mothers/caretakers in the East region know how to register a birth, while it is less than 1% in the South region. For mothers/caretakers with no education, 5% know how to register a birth, compared to 12% of mothers with secondary education or higher. Children living in

the poorest households (31%) are significantly less likely to have their births registered than their counterparts living in the wealthiest households (58%).⁴⁵

Child Labour

Article 32 of the CRC states that “States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.” Further, the MDGs call for the protection of children against exploitation.

In the AMICS questionnaire, a number of questions addressed the issue of children 5-14 years of age involved in labour activities. The term “child labour” is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to children's physical and mental development. It refers to work that is mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling by depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work.

In Afghanistan, 27% of children aged 5-11 years were involved in child labour activities, while the figure is 22% for children aged 12-14 years. The prevalence of total child labour (aged 5-14 years) is 25%. There is a variance of total child labour between girls (23%) and boys (28%). Major variances are observed across residence, the mother's education level, household socio-economic status, and region. Almost twice as many children in rural areas (28%) are involved in child labour than their counterparts in urban areas (15%). Children living in the Central Highlands region (33%) are more involved in child labour than their counterparts living in the Western region (13%). Children whose mothers have no education (26%) are twice as likely to be involved in child labour than children whose mothers have attained secondary education or higher (13%). Children living in the poorest households (30%) are twice as likely to be involved in child labour than children living in the wealthiest households (15%).

Child labour and school attendance

Of the 42% of children aged 5-14 attending school, more than half of them (51%) are also involved in child labour activities. Of the 25% of children involved in child labour, less than one third of them are also attending school (31%). Of children involved in child labour who are attending school, there are significant differentials by gender, residence, region, mother's education level and household socio-economic status. There are 16 percentage points difference between school-attending girls involved in child labour (42%) and for school-attending boys (58%) involved in child labour. Children living in rural areas are significantly less likely to be in school if they are participating in labour activities (49%) than children living in urban areas who participate in labour activities (69%). The rate of children involved in child labour who are attending school is almost three and a half times higher for children in the Central Highlands region (75%) than for children in the Southern region (22%). Children involved in child labour whose mothers have no education (49%) are less likely to attend school compared with their counterparts whose mothers have attained secondary education or higher (88%). Children involved in child labour who live in the poorest households (38%) are less likely to attend school compared with children living in the wealthiest households⁴⁶.

⁴⁵ AMICS

⁴⁶ AMICS p. 128

SECTION 2: THE MACROECONOMIC AND PUBLIC FINANCE CONTEXTS

2.1 GDP and GDP per Capita Trends

2.1 GDP and GDP per Capita

Afghanistan had a decade of high growth rates from 2003, and the economy is now in transition. Economic growth rates have declined in Afghanistan since 1392 (2013), with this slowdown becoming more marked in 1393 (2014), and it has continued in 1394 (2015). The growth rates were adversely affected by the impact from the long political transfer process during 2014, the transition with international forces, ongoing security issues, and lower business confidence and investment. This has resulted in lower economic growth of 1.3 percent in 2014, and slower recovery in 2015, with a forecast rate of 2.0 percent⁴⁷. These growth rates are lower than those over the previous decade, and lower than originally forecast.

Afghanistan's high growth rates were funded by very high levels of development partner support, almost all of which has been grant aid, and by the large international military presence with associated investment and service contracts. As a result, the services (communications and transport, government public sector services (education and health) have been key elements in this growth, and with industry, construction investment has been a major activity supporting growth. In the future mining has the potential to be a key growth source. Private investment, while small in its contribution, has declined since 2012. Private consumption has increased, and supported growth in aggregate demand, though with the uncertainty and slowdown in the service sector and job losses connected with the departure of the military, this growth is slowing.

The economy continues to be agriculturally based, with wheat, horticulture and livestock being the dominant commodities, and the sector accounting for approximately 25% of GDP in 2014. It provides livelihoods for the majority of the rural population. In terms of GDP shares in 2014, transport and communication accounted for 28%, construction (13%), manufacturing (10%), trade (8%), public administration (13%) and other 5%. In 2014, the growth came from slight expansion in industries from a construction increase (2.4%), and in services (2.2%). There was a slight slowdown in manufacturing (2.5%)⁴⁸.

Not included in the GDP is the illegal opium production. Production area has continued to expand, and while the price has declined, it is estimated that in 2014 the farm-gate value of production was approximately \$US850 million. In terms of the contribution to the GDP, the estimate in 2013/2014⁴⁹ was 80 billion Afs (US\$1.4 billion).

As outlined in Table 1.1 for the period 1390-1393 (2011-2014), the GDP in both nominal and real terms has increased, with GDP per capita (Afs current prices) rising from 29,600 Afs to 37,500 Afs. In constant prices, it increased from 13,270 Afs in 1390 to 14,980 in 1392 and declined slightly to 14,710 Afs in 1393. In \$US terms, the GDP per capita increased from \$US614 to \$US680 (in 1391) and declined over the next two years to US\$654, reflecting the depreciation in the Afghani/ \$US exchange rate.

Table 1.1: GDP and GDP per Capita Trends, 1390-1393 (2011-2014)

⁴⁷ IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

⁴⁸ World Bank Afghanistan Country Snapshot, October 2015

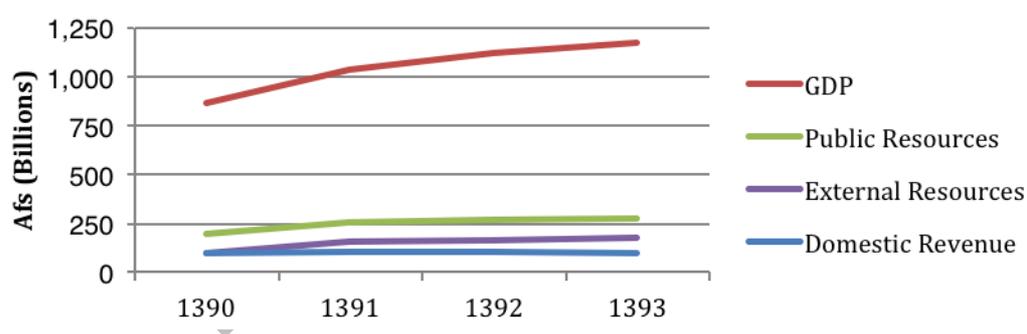
⁴⁹ IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

	1390	1391	1392	1393
Billions Afs				
GDP				
In Current Prices				
-billions Afs	862	1034	1117	1173
-billions \$US	17.89	20.3	20.17	20.44
GDP Deflator (Base Year 2002 - reference 100)	216.4	234.7	244.0	253.1
In Constant Prices (2002)	386	440	458	464
Real GDP Growth	6.5	14.0	3.9	1.3
Population (millions)	29.11	29.82	30.55	31.28
GDP per Capita ('000s Afs)				
In Current Prices	29611.8	34674.7	36563.0	37500.0
In Constant Prices (2002)	13273.8	14765.3	14982.0	14817.8
GDP per Capita (\$US)				
In Current Prices	614.6	680.8	660.2	653.5

Source: Afghanistan Government CSO, MoF and IMF

GDP growth is projected to rise over the period 2016 to 2020 from 3 to 6 percent, and in the long-term to average 4.5 percent⁵⁰. The growth is expected to come from agriculture, and from a recovery in confidence, increased mining and energy sector activity, and from the gains achieved under the National Unity Government's reform agenda. Delays with the planned major mining projects, in terms of implementation and the effects from low commodity prices will lead to slippage in investment and income streams to 2018. The economic growth will be dependent on domestic and regional security conditions not deteriorating, a recovery in economic confidence, and effective implementation of the Government's reform policies. The international development partners have committed to continuing to support Afghanistan through the transition period. This support is based on the government delivering on its commitments under the Mutual Accountability Framework.

Figure 1.1: GDP and Public Resources



2.2 Public Resources

⁵⁰ MOF Medium Term fiscal Framework (2015), and IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

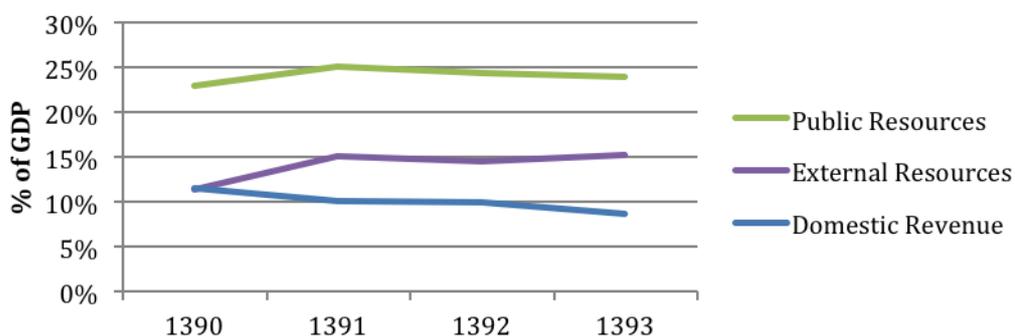
2.2. Public Resources

Public resources are the total pool of funds available to government from domestic revenue generation and external resources funded on-budget by the international development partners. Public resources rose over the period (1390 to 1393) from 197.9 billion Afs to 280.5 billion Afs (remaining within a range of 23% to 25% of GDP). The increase was almost totally funded from external resources, as domestic revenues, rose slightly from 99 billion Afs in 1390 to 109.7 billion Afs in 1392 before declining to 100 billion Afs in 1393. The contribution of external resources to public resources has risen from 50% to 64% over the period, and as a share of GDP risen from 11.4% to 15.4%. Refer Figure 1.2.

Domestic revenues declined by 3 percent of GDP over the period 1390, from 11.5 % to 8.5% in 1393. The factors that led to this decline were lower compliance and enforcement, slowing economic activity and lower import growth reflecting the political/ security uncertainties. Revenues were lower across all revenue categories, covering tax revenues, non-tax revenues and customs duties. The government did not meet budget revenue projections in 1393, and in 1394 while revenue has increased, the performance to date indicates that 1394 targets of 117 billion Afs may not be achieved.

While the planned 2015 VAT implementation was postponed, the government embarked on other new measures to address the revenue shortfalls. These measures are expected to increase revenue by approximately 1 percent of GDP in the medium-term.⁵¹

Figure 1.2: Revenue and Grants



⁵¹ IMF Staff Report (November 13, 2015), 2015 Article Consultation and First Review under the Staff Monitored Program

Table 1.2: The Evolution of Public Resources, 1390-1393 (2011-2014)

Billions Afs	1390	1391	1392	1393
Public Resources	197.94	260.0	272.02	280.51
Share of GDP (%)	23.0%	25.1%	24.4%	23.9%
In Constant 2002 Prices	0.91	1.11	1.11	1.11
Domestic Revenues	99.32	104.0	109.72	100.26
Share of GDP (%)	11.5%	10.1%	9.8%	8.5%
In Constant 2002 Prices	0.46	0.44	0.45	0.40
Per Capita (Constant 2002 Prices)	3411.9	3487.6	3591.5	3205.2
As % of total public resources	50.2%	40.0%	40.3%	35.7%
External Resources	98.62	156.0	162.3	180.25
Share of GDP (%)	11.4%	15.1%	14.5%	15.4%
In Constant 2002 Prices	0.46	0.66	0.67	0.71
Per Capita (Constant 2002 Prices)	3387.8	5231.4	5312.6	5762.5
As % of total public resources	49.8%	60.0%	59.7%	64.3%

Source: Afghanistan Government CSO, MoF and IMF

NB: Public Resources, for comparison 1391 (2012) is recalculated from data reported in the solar fiscal year basis

(March 21-March 20). Since 1392 (2013) the fiscal year runs December 22-December 21, which is more aligned with the Gregorian calendar year.

External Resources and Official Development Assistance. Afghanistan is one of the most highly aid dependent economies. It currently receives approximately \$US6 billion of civilian official development assistance (ODA) per year. In addition, it receives financial support for military and security sectors, with the total including ODA, at approximately \$15 billion per year. Chapter 3 has a more detailed description on ODA and external resources, particularly in relation to the education sector.

The government has domestic revenue constraints, and is heavily reliant on donor aid to fund the development budget and part of the operating budget. In the education sector, donor ODA is used to fund the development budget and part of the operating budget, and off-budget project interventions. The MOE expenditure (1391-1393) was estimated at \$US2.5 billion with at least 43% funded by donors. Of the donor aid, only 25% of the expenditure was on budget, with the remaining development expenditure off-budget. For MOHE, the total expenditure (1391-1393) was estimated at \$US 360 million with at least 53% donor funded, and with approximately 35% of donor aid being on-budget.

This low level of on-budget support for both MOE and MOHE, indicates that there are significant opportunities to improve aid effectiveness in the education sector. The donor performance in the education sector is not inline with agreed on-budget targets. At the Tokyo Conference (2012), government and donors endorsed the target of 50% of civilian aid to be on-budget. This overall target was met by donors in 1393. Given current development budget expenditure rates, to

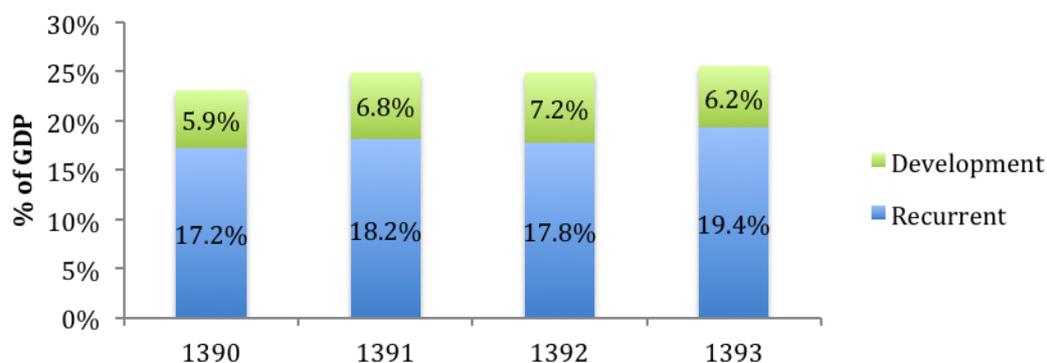
achieve the full impact from moving education funds on-budget, coordinated improvements in line ministries absorptive capacity (ie. procurement, monitoring and implementation) will be necessary.

2.3 Public Expenditure

Government budget expenditures (operating and development expenditures) in total have remained relatively consistent in recent years, rising from 23% of GDP in 1390, and from 1391 to 1393 remaining at around 25 percent of GDP, refer Table 1.3.

Operating expenditure in 1393 accounted for 19.4 percent of GDP, and development expenditure 6.2 percent of GDP. Government operating expenditure has increased (as a percent of GDP) has increased from 17.2% in 1390 to 19.4% in 1394. This increase in expenditure, is due to increased security costs, rising civil service costs from an expansion in the number of civil servants, especially in education and health, and associated pension costs, and operations and maintenance costs on public infrastructure. Over the period, a further factor has been the transfer of off-budget operating costs to on-budget operating costs.

Figure 1.3: Government Expenditure



In 1393 while domestic revenues declined, expenditures increased, and the government was forced to control discretionary development expenditures and non-salary costs, and had to fund the deficit by drawing down cash reserves, accruing arrears, and receiving some specific donor assistance. In 1394 expenditures are expected to have increased, and should a deficit occur, there are US development funds available under the partnership agreement, and from other program funds with release subject to the government achieving agreed targets.

Table 1.3: Total Government Revenue, Expenditure and Deficit (% of GDP), 1390-1393 (2011-2014)

% of GDP	1390	1391	1392	1393
Revenue and Grants (public resources)	23.0%	25.1%	24.4%	23.9%
-Domestic Revenue	11.5%	10.1%	9.8%	8.5%
-Grants	11.4%	15.1%	14.5%	15.4%
Government Expenditure and Net Lending	23.1%	25.0%	25.0%	25.6%
Recurrent Expenditure	17.2%	18.2%	17.8%	19.4%
Development Expenditure	5.9%	6.8%	7.2%	6.2%
-External	5.9%	6.8%	7.2%	6.2%
Net Lending	0.0%	0.0%	0.0%	0.0%
Deficit Including grants	-0.2%	0.1%	-0.6%	-1.7%
Deficit Excluding grants	-5.7%	-8.1%	-8.0%	-10.9%

NB: Public Resources, for comparison 1391 (2012) is recalculated from data reported in the solar fiscal year basis

(March 21-March 20). Since 1392 (2013) the fiscal year runs December 22-December 21, which is more aligned with the Gregorian calendar year.

The education sector in 1393 (2014) accounted for 14.1% of total government expenditure (excluding debt service), 15.7% of government recurrent expenditure, 9.9% of development expenditure and 3.8% of GDP. While education expenditure at this level appears relatively low compared to equivalent developing countries, given Afghanistan's large school age population, this percentage allocation is affected by the high levels of government security expenditure.

1394 (2015) National Budget Grant Resources. The total grants to support the national budget in 2015 were estimated at Afs 302.75 billion (\$US5.3 billion), which accounted for approximately 71% of the national budget. From the total grants Afs 161.78 billion (from Combined Security Transition Command – Afghanistan (CSTC-A), ARTF, LOTFA and some other donors), was to be used to finance government operating expenditures⁵². The total to fund the development budget was approximately Afs 140.97 billion, and this included new resources in 1394 and carry-over of unspent budget from 1393, covering discretionary and non-discretionary grants. The majority of the development budget funding in 1394 is non discretionary (Afs 120.53 billion), with discretionary grants of Afs 16.79 billion, and loan funding of Afs 3.66 billion. The contraction in the funds available in discretionary grants has limited the government's ability to fund priority interventions.

2.4 Education Development Indices

A range of education development indices have been applied in Afghanistan. The human development index (HDI) is used as a summary measure of average achievement in key

⁵² MOF 1394 (2015) Budget Paper

dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. In 2014 Afghanistan on the HDI was ranked 171 out of 188 countries. The multi-dimensional poverty index (MPI) is another measure that includes health, education and standard of housing. It is based on micro-data at the household level, and the MPI of 0.353 in Afghanistan in 2010/2011 is based on household survey data.

While these indices are important they do not provide a composite index of the comparative international perspective of a country's global level of economic development, which integrates the main macro-economic indicators (GDP per capita, domestic resources as % of GDP) with external development aid for education, and share of pupils enrolled in private institutions. While such indices have been prepared for sub-saharan Africa, they have not been prepared for south Asian countries or Afghanistan. The same applies to the composite global context index that has been developed with the World Bank for sub-saharan Africa to summarize socio-demographic and economic contexts as they apply to the education sector.

In Afghanistan, further work is required to identify an appropriate education development index (EDI), which would provide a comprehensive and composite index of performance. Such an index could be used to assist in decision-making and resource allocation. Initially the index could be developed for primary education, and then expanded. An example of the type of EDI, that can be developed, is the Bangladesh EDI⁵³, which involves an input index (involving access, infrastructure and quality indices), equity index and outcome index (involving indicators related to outcome, GER, pass rate, attendance rates, drop out and repetition rates).

2.5 Future Prospects

The Government medium term fiscal framework (MTFF) provides the Government's projection on future revenue and expenditure. It is based key assumptions on revenue and expenditures, and includes the security expenditure projection which is estimated will rise to 17 percent of GDP in 1399, before declining as a % of GDP in the longer term.

The future projections are based on economic growth, reform progress, security improvement, and ongoing development partner grant support. Key risks are an increase in insecurity that would constrain economic reform measures and revenue collections, and delays in the mining revenue, and a decline in development partner funding. As noted by the IMF and MOF should grants decline there is would be a need to rapidly increase domestic revenue collections, and to a limited extent this shortfall could be financed by external loans.

While revenue is forecast to increase, expenditure is also expected to rise, meaning that the government total budget deficit (excluding grants) and resulting financing requirement will remain large. The IMF estimate that it will remain above 12 percent of GDP. This gap to be financed by development partner grants or concessional loans. This is also of concern, and a risk, as while development partner commitments are in place to 2017, after that date there is a decline in commitments. New commitments will be needed if grants are going to be at the level required to maintain current government service delivery. In terms of fiscal sustainability, which is defined as domestic revenue covering operating expenditure, this is now forecast as being reached after 2035.

⁵³ World Bank, Where does Bangladesh Stand in Terms of Achieving EFA Goals by 2015, HD Unit, SA Region, August 2007

The MTFF forward projections on education sector expenditure indicate a relatively unchanged total allocation for the forecast period to 1398, ranging between 57.1 to 59.5 billion AFs over the period 1395 to 1399 (2016 to 2020). Refer Table 1.4.

Table 1.4: MTFF Government and Education Revenue and Expenditure Projections 1394-1399 (2015-2020)

Billions Afs	1394 2015	1395 2016	1396 2017	1397 2018	1398 2019	1399 2020
Revenue and Grants (public resources)	418.70	441.90	396.10	398.90	398.00	396.00
-Domestic Revenue	117.10	127.60	136.10	147.30	159.00	171.00
-Grants	301.60	314.30	260.00	251.60	239.00	225.00
Government Expenditure	435.50	461.80	429.40	444.10	458.75	475.00
Recurrent Expenditure	284.40	283.30	302.90	318.60	339.45	360.00
Development Expenditure	151.10	178.50	126.50	125.50	119.30	115.00
-External	151.10	178.50	126.50	125.50	119.30	0.00
Net Lending	0.00	0.00	0.00	0.00	0.00	0.00
Deficit Including grants	-16.80	-19.90	-33.30	-45.20	-60.75	-79.00
Deficit Excluding grants	-167.30	-155.70	-166.80	-171.30	-	-
					180.45	189.00
Education Sector Expenditure (MTFF)	55.40	59.60	54.70	56.00	57.20	59.60
% Annual increase		7.6%	-8.2%	2.4%	2.1%	4.2%
% of total government expenditure	12.7%	12.9%	12.7%	12.6%	12.5%	12.5%
MOE and MOHE (98% of expenditure)		58.41	53.61	54.88	56.06	58.41
-MOE (86% of total sector)	47.64	51.26	47.04	48.16	49.19	51.26
-MOHE (12% of total sector)	6.65	7.15	6.56	6.72	6.86	7.15

Source: MOF- MTFF December 2015

1) Increase in security expenditures on-budget in 1394 and allocated fund for development projects)

2) 1393 AFMIS data

3) 1399 is a projection -based on previous trends

Based on existing education sector expenditures, the forecast increased student numbers and resulting expenditure increase in primary, secondary, TVET and tertiary education, there will be an increased education sector financing requirement for services to be maintained at existing levels.

Option Analysis. An initial options analysis has been undertaken to assess the forward funding requirements for the MOE and MOHE. This analysis will be updated in the final report. While the MTFF provides the medium term fiscal resource bound that the government considers is currently feasible, given the economy wide assumptions. It is essential to assess the demand side requirement and determine the level of financial resources required to maintain or improve the existing service delivery.

As outlined in Chapter 3, the MOE and MOHE are under financial pressure, with unit cost per student declining, the pupil teacher ratio (PTR) rising, and very limited funds for non-salary

materials and operations and maintenance, putting both quality and sustainability at risk. Further the sub-sectors are expanding with increasing student numbers, and there is the need for large infrastructure investments.

The MTFF education sector funding projection, has been reviewed on the basis of the following: as per current expenditures 98% of the amount is allocated to MOE and MOHE on the basis of 86% and 12% of the total expenditure estimate. The allocation to recurrent and development costs is as per the existing ratio in each ministry, MOE (82.5%,17.5%) and MOHE (72.8%, 27.2%) respectively. Details on these allocations are provided in Chapter 3. In MOE there are five programs and the recurrent costs are allocated on the basis of the existing expenditure percentage allocations, and for each of the five programs, the salary and non-salary costs were allocated in the existing fixed percentages. Refer Chapter 3 for further details.

The allocation of the MTFF projection was undertaken in this way to determine if the MTFF resource ceiling would enable delivery of the services at the current level or because of the funding level have a negative impact. For 3 of the programs (general and islamic education, TVET and MOHE higher education) it is possible to get a unit recurrent cost per student, for the other MOE programs (curriculum development a& teacher training, and literacy) there are sub-programs and the lack of disaggregated data means it is not possible to separate the cost base per student. For these programs, and for the education management program, the projected expenditure is allocated in the same percentage as per current situation.

The analysis is based on the existing system, the current constraints, and over the period it is assumed that there is a 8% increase in the primary and secondary student population (an increase from 9.5 million to 15 million over 2015 to 2020, and a 5% increase in TVET students, and a 10% increase in the public higher education students (an increase from 179,000 to 317,000 over 2015 to 2020). The MOE projection is for 15 million students in 2020, so the proposed increase in student numbers is conservative.

Based on these assumptions, and the MTFF fiscal resource projection for the education sector are able to estimate the unit costs per student, these projections are summarized below and indicate that the unit cost per student would decline significantly (MOHE from 24,000 to 16,000 Afs unit recurrent cost per student, general education (from 3470 to 2850 AFs) and TVET from 17,600 to 14,300 AFs) over the period 2016 to 2020.

Essentially based on the MTFF projection, MOE and MOHE would have to operate with lower quality service, with larger PTRs and limited material, operations and maintenance non-salary services. The development budget is assumed to continue providing the needed infrastructure. If this is the resource bound there will need to be very careful ministry review, prioritization and cost/efficiency assessment of all services, and options for any transfer of cost to users, to minimize the quality decline that would occur.

On the education demand side, the preliminary analysis is on two options, to assess the fiscal costs of delivery education services:

- (i) **Option 1**, the current level, with the general student population increasing at 8% per year in line with MOE projections, and TVET and MOHE student numbers increasing at 10% per year. The estimated unit costs per student in 2015 were used to determine the costs of these programs and for the other supporting programs there was a 10% in allocation, based on 2015 figure; and
- (ii) **Option 2**, an improved service, with an increased budget allocation to reduce the PTR in general education from 45 to 40 which would require a 12.5% in salary cost for this component, and lower the TVET and higher education PTRs, and an increased allocation for materials and operations and maintenance (this involved an increased

allocation per unit), in total increased unit costs per student of 15%. This type of increase would only be an initial step in terms of the large operations and maintenance budget requirements that the ministries need to address. The general student population increasing at 8% per year in line with MOE projections, and TVET and MOHE student numbers increasing at 10% per year. The estimated unit costs per student in 2015 were used as the base with the increase mentioned to determine the costs of these programs and for the other supporting programs there was a 10% in allocation, based on 2015 figure.

With both Option 1 (equivalent to existing) and Option 2 (initial quality improvement) the resource requirements greatly exceed the MTFF fiscal allocation. The details are provided in the Table 1.5 below, and indicate the large scale of the shortfall, by over 50 % for MOE and 60% for MOHE for recurrent expenditures under option 1 in 2020, with larger shortfall with option 2, and similarly with total expenditures.

Table 1.5: MOE and MOHE Total and Recurrent Expenditure Projections (MTFF and Options), 1395-1399 (2016-2020)

	1394	1395	1396	1397	1398	1399
Billion Afs	2015	2016	2017	2018	2019	2020
MOE Recurrent Expenditure						
MTFF	39.3	42.3	38.8	39.7	40.6	42.3
Option 1	42.1	45.6	49.4	53.5	57.9	62.7
Option 2	46.9	50.8	55.0	59.5	64.4	69.8
MOHE Recurrent Expenditure						
MTFF	4.8	5.2	4.8	4.9	5.0	5.2
Option 1	5.0	5.4	6.0	6.6	7.3	8.0
Option 2	5.6	6.2	6.8	7.5	8.2	9.1
Total Expenditure (MOE and MOHE)						
MTFF	54.29	58.41	53.61	54.88	56.06	58.41
Option 1	54.4	61.7	66.6	71.8	77.5	83.6
Option 2	55.1	67.7	73.0	78.8	85.0	91.8

Source: MTFF, December 2015

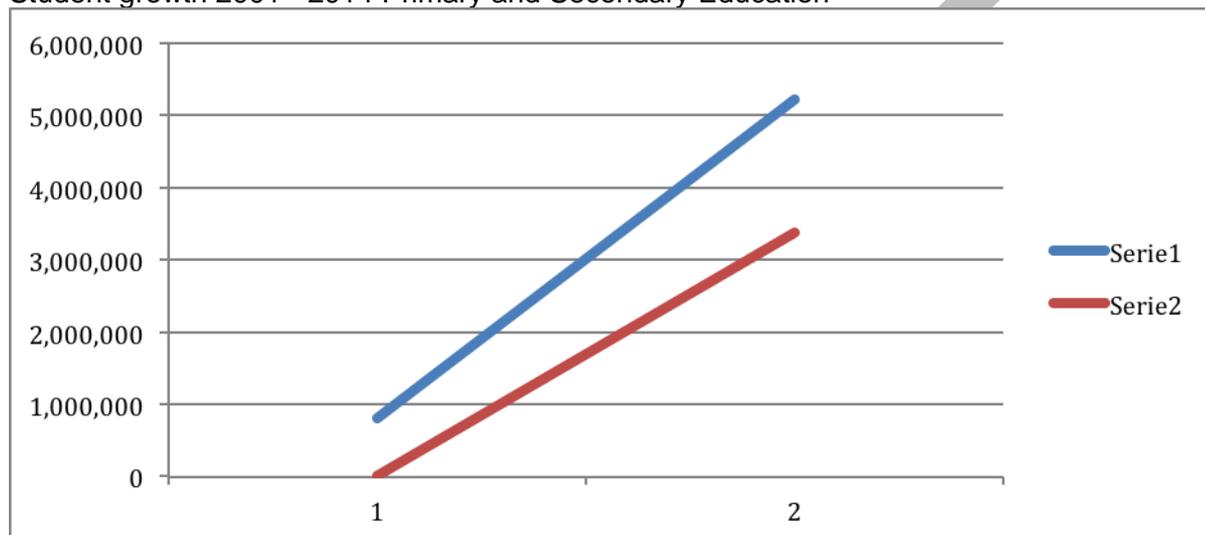
The options for financing this shortfall, to involve further review with MOF to seek increased funding resources, with the donors to seek both increased commitments to education and more on-budget allocations to improve aid effectiveness, and within the ministries very thorough impact assessments and cost reviews to improve internal efficiency and outcomes. Also, if alternate options are available to implement means tested cost sharing by service users. In the medium term, given the resource constraints, it will be a challenge to maintain and improve quality.

CHAPTER 2

ENROLMENT, INTERNAL EFFICIENCY AND OUT-OF-SCHOOL CHILDREN

SECTION 1: THE EVOLUTION OF ENROLMENT AND EDUCATION SYSTEM ENROLMENT CAPACITY

Student growth 2001 - 2014 Primary and Secondary Education



2.1.1 The Evolution of Enrolment

Afghanistan has made steady progress in reconstituting the education sector over the past decade:

From approximately 800,000 students, and very few girls, in 2001 to more than 8.5 million students in 1393 (2014) of whom 5,213,426 are boys and 3,370,280 or 39 % are girls⁵⁴.

Most students who begin primary school complete primary school. The challenge lies in raising primary attendance rates beyond the rate of 55%, and in ensuring a far greater proportion of primary graduates go on to start and complete a secondary level education. In particular, there is a sharp drop in girls' school attendance after primary school. Afghanistan's achievement of all of the MDGs rests on the human capital that it can bring to bear to reach its development objectives. Thus improving education indicators, including gender equity in education, in particular must be of paramount priority.

The goal of the Ministry of Education is to increase enrolment in primary education to 110%, in lower secondary to 80%, and in upper secondary to 57% by 2020. By the same year, the MoE wants to decrease dropout in General Education to 3%, and repetitions to 10%. GE enrollment is targeted at 14.8 million (6.9 million girls and 7.9 million boys). The enrollment target for Technical and Vocational Education and Trainings is 300,000. MoE plans to increase literacy rate for people of age 15 and above to 60% by the same year. This would be done through literacy courses for 6 million students (at least 60% of whom would be female)⁵⁵.

⁵⁴ MOE EMIS Enrolment by programme 1393

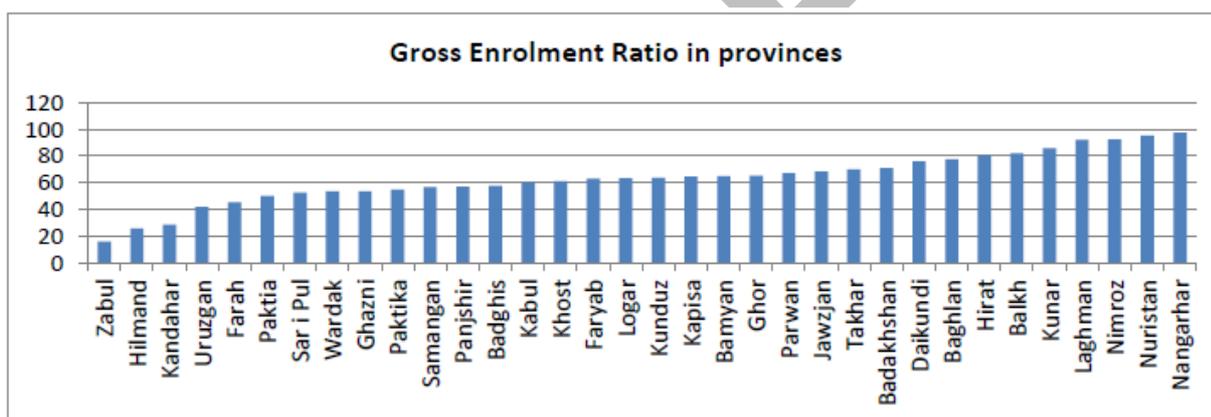
⁵⁵ Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

We attempt to gauge the progress towards these goals 5 years before the set deadline. We draw from various sources of data to come up with metrics, which will let us get a sense of enrollment, repetition, and dropout as per the guidelines laid down by GPE.

In Afghanistan, age 7 was the primary school entry age until the start of the July 2008 school year, when the school entry age became age 6 for primary school. Age 7 is considered as the primary school entry age in this analysis.

2.1.2 Evolution of Enrolment Capacity: Gross Enrolment Rate Computation

Enrollment in GE schools increased to 8.6 million in 2012. Out of these, about 1 million were permanently absent. They were kept enrolled in the school registers to encourage their return. Considering such absence, the MoE did not achieve the target for 2012⁵⁶. By other estimates, 8.2 million children were in schools in 2012⁵⁷. In 2001, 1 million children were enrolled, few of whom were girls. By 2013, the number increased to 9 million, and 39% of them were girls. In 2013, the net enrolment rate in primary education was 86% for boys and 64% for girls. The same year, net enrolment rate in GE was 71% for boys and 50% for girls⁵⁸. In 2013, 8.2 million students were enrolled in the GE system, 70% of whom were in primary school. A further 260,000 were enrolled in the Islamic Education system and 61,000 in the TVET system⁵⁹.



Calculation of the Gross Enrollment Ratio becomes complicated due to lack of school-age population data. The above table shows the GER based on UNDP's estimates of population in 2011, and actual school enrolment with permanently absent students excluded⁶⁰. Overall GER for all levels is 67% (boys 80%, girls 53%). For primary level, the GER is 79% overall (92% boys, 66% girls); the same figure for the secondary level is 36% only (45% boys, 26% girls). The variation

⁵⁶ Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

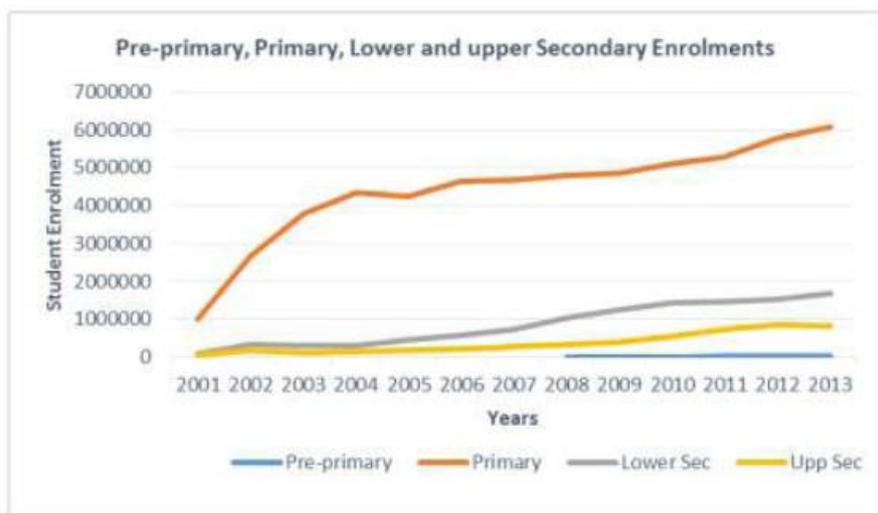
⁵⁷ Afghanistan National Education for All (EFA) Review Report 2015, Ministry of Education, Islamic Republic of Afghanistan, June 2014

⁵⁸ Ibid.

⁵⁹ Education Management Information System (EMIS) database, Ministry of Education, August 2015 (<http://moe.gov.af/en/page/1831/3031>)⁵⁹

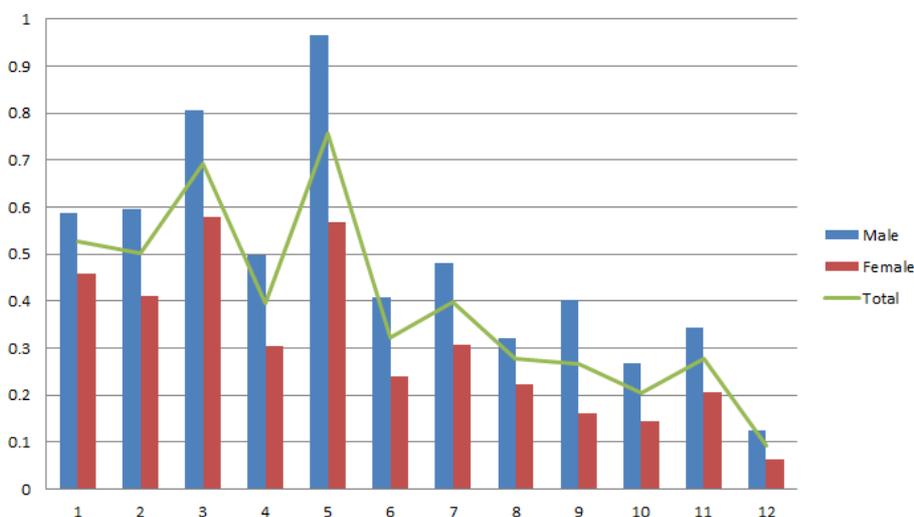
⁶⁰ Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

ranges from 16% to 97% across provinces. We can also see that in Nuristan and Nangarhar, GER is above 90%, which requires us to approach the reliability of the estimate with caution.



The graph above shows enrollment rates at pre-primary, primary, lower secondary, and upper secondary levels between 2001 and 2013⁶¹. We can see above that enrolment at the primary level has been historically higher. The growth in enrollment is primary education accelerated between 2001 and 2005, and then slowed down.

Gross Enrollment Ratio across Grades (2012)



GER is high for males at all grade levels. We can also see that GER increases till the end of primary school, and then suddenly drops. We cannot tell, however, whether the surge in 5th grade is due to repetition. Furthermore, only a certain portion of the students in each grade will be of the appropriate age group, so GER does not give us a complete picture of enrollment. For instance, according to the AMIS data, there were 1.3 times as many children of age 6 in Grade 1 as there

⁶¹ Afghanistan National Education for All (EFA) Review Report 2015, Ministry of Education, Islamic Republic of Afghanistan, June 2014

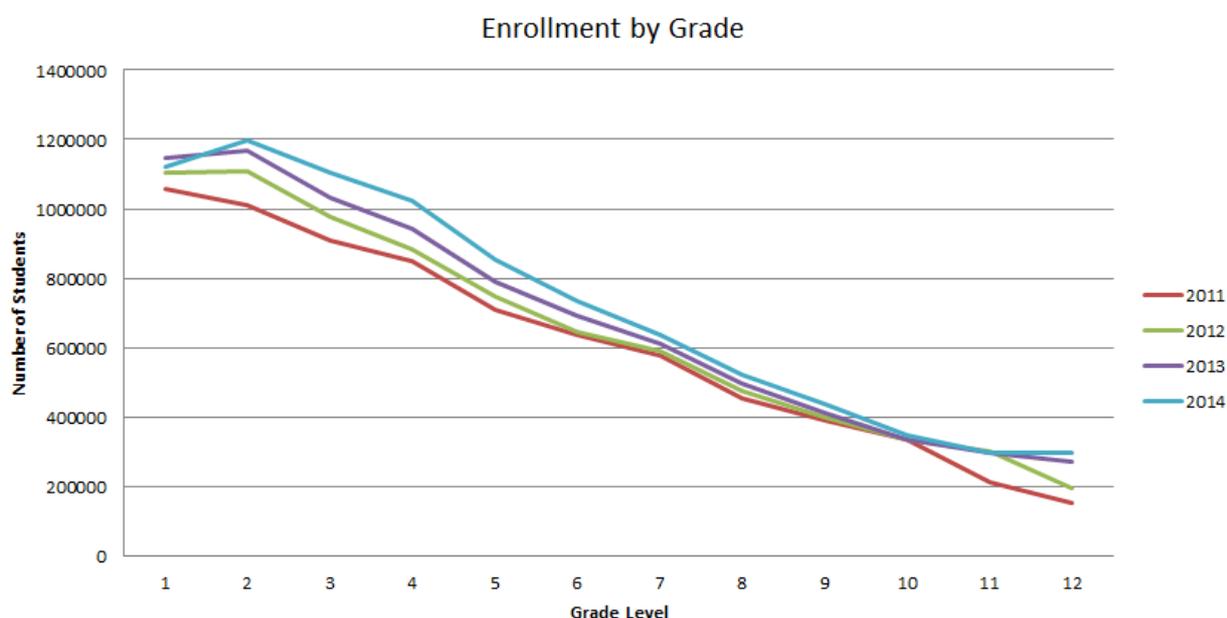
were of age 7 (see heat-map based on AMIS data showing age-distribution against the grades below)⁶².

SECTION 2: SCHOOL COVERAGE: SCHOOLING PROFILES, SCHOOL LIFE EXPECTANCY AND EDUCATION PYRAMIDS

SECTION 2: SCHOOL COVERAGE: SCHOOLING PROFILES, SCHOOL LIFE EXPECTANCY

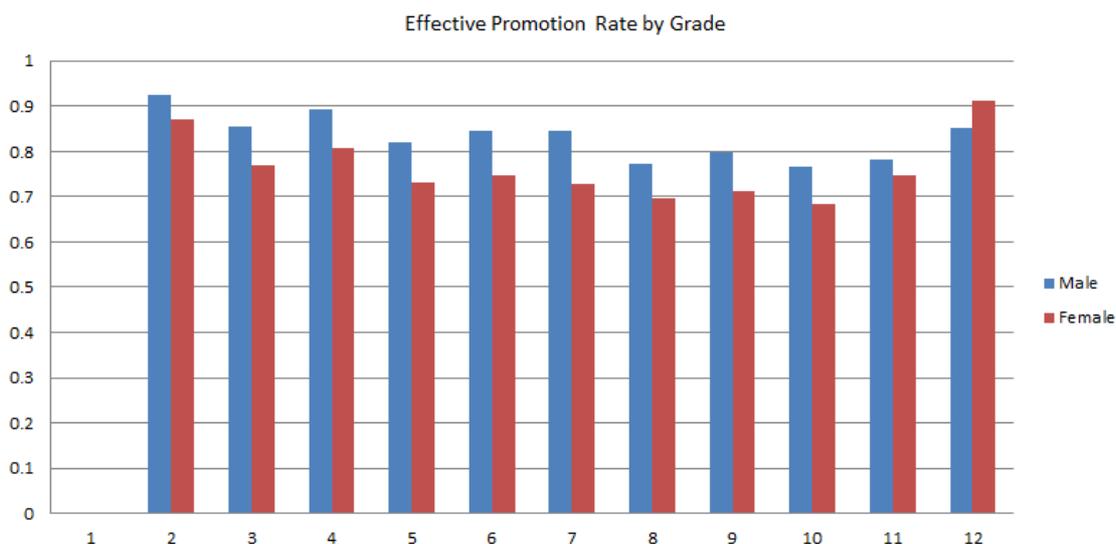
2.2.1 Schooling Profiles and Retention

Repetition is an important indicator of the performance of a schooling system. Though detailed repetition rates at grade level were not available, we have used the EMIS dataset to estimate the average repetition rate in GE for 2013 and 2014. Repetition data was not available for years before this. We assume that the repetition rate and new-enrollment rate is the same across grades for the calculations that follow. However, this is not a sound assumption, so the resultant figures should be considered rough estimates.



In the figure above, we plotted the total enrollment (new enrollments as well as repeaters) in each grade level for the years 2011-2014 to get a cross-sectional schooling profile for each of the years. We see a steady drop in enrollment as we move to higher grades. This is true for all years. This is indicative of high drop-out and repetition in the GE schooling system. By assuming a constant new-enrollment rate at each grade, we were also able to get rough estimates for the effective promotion rate of different grades, which is defined as the number of non-repeaters in a grade in a given year divided by the number of non-repeaters in the previous grade in the previous year.

⁶² Education Management Information System (EMIS) database, Ministry of Education, August 2015 (<http://moe.gov.af/en/page/1831/3031>)
Afghanistan Multiple Indicator Cluster Survey (AMICS), UNICEF, June 2012



The effective promotion rate for males is in general is over 75%, and that for females is generally over 65%. We should keep in mind that this does not reflect the high repetition rate, as only non-repeaters are considered in the calculation. The rate declines as we move up the education ladder till the 10th grade, and then increases (more sharply for females than for males).

2.2.2 School Life Expectancy (SLE)

Another indicator, which can reveal important features of the education system is the School Life Expectancy (SLE). School life Expectancy is the average number of schooling years the children of a given country may hope to complete (repeated years are not included) given the prevailing conditions offered by an education system. We get SLE by adding Access Rates across all grades. However, since we do not have grade-wise data on new enrollments, we cannot calculate their respective Access Rates. Instead, we will use an alternative method for calculating SLE based on GPA's guidelines⁶³. [7] According to the guidelines, $SLE = \text{Average Enrollment Rate (AER)} \times \text{Number of Years in Cycle}$. And $AER = \frac{\text{Number of Non-Repeaters in a GE}}{\text{Population Eligible for GE Schooling}}$. The AMICS dataset tells us that 34.37% of the population is between 7-18 years of age. We used this to estimate the number of children of school-going age.

Year	Total Enrollment	Population of school-going age	AER	SLE
2012	7,779,101	10,252,571	0.76	9.12
2013	8,203,724	10,500,035	0.78	9.36
2014	8,583,706	10,750,936	0.80	9.6

We can see in the table above that SLE has increased about 6 months between 2011 and 2014, though it still remains low. Overall, there has been a definitive increase in enrolment. Nonetheless, it is also evident that students do not graduate into higher grades easily, especially after primary education.

The figure below shows the school-life expectancy by sex at national level and for urban and rural populations⁶⁴. If current attendance ratios were maintained, a six-year old child could expect to

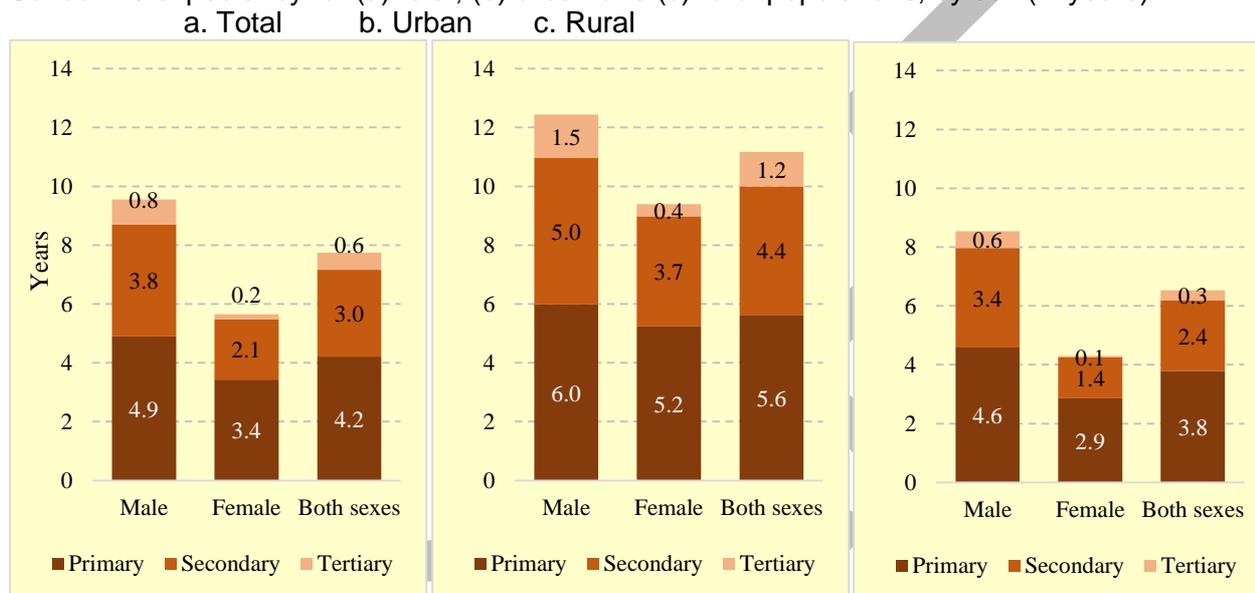
⁶³ [7] Education Sector Analysis Methodological Guidelines (Volume 1), UNESCO, September 2014

⁶⁴ Source: ALCS 2015, CSO

remain in education for 7.7 years, an average that is built up from an expected 4.2 years in primary education, 3.0 years in secondary and 0.6 years in tertiary education. Boys could expect to stay in education for 9.5 years, 1.7 times longer than girls, for whom the school-life expectancy is 5.6 years.

The urban school-life expectancy of 12.4 years for boys is much higher than the rural version (8.5 years). The figure also indicates that the gender disadvantage for girls is larger in rural areas, both in absolute and in relative terms. On average, a rural girl could only expect to be in education for 4.3 years.

School-life expectancy for (a) total, (b) urban and (c) rural populations, by sex (in years)⁶⁵



Percentage of the Population of Each Age (5-24) Attending School (1-12 Grade)

Age	Not Attending	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
5	88.9	5	4.9	0.7	0	0	0	0	0	0	0	0	0
6	68.2	11.7	14.7	4.5	0.7	0	0	0	0	0	0	0	0
7	53.4	8.7	20.4	12.6	4.2	0.4	0	0	0	0	0	0	0
8	47.8	3.4	16.9	17.4	10.3	3.1	1	0	0	0	0	0	0
9	41.3	1.8	9	17.3	15.7	9.4	4.3	1	0	0	0	0	0
10	41.6	0.7	4.9	12.2	15.6	14	8.4	2.6	0	0	0	0	0
11	37.7	0.8	2.7	6.8	12.4	15.1	14	6.9	2.5	0.9	0	0	0
12	44.6	0.3	1.3	3.6	7.5	10.4	12.3	9.5	7.5	2.4	0.6	0	0
13	49	0.1	0.6	1.5	3	6.4	9.9	10.8	10.7	5	2.1	0.7	0
14	51.4	0.1	0.1	1.1	1.7	3.7	7.6	8.1	12	8.5	3.6	1.6	0.3
15	56.9	0	0.2	0.2	0.9	1.5	3.3	6.3	9.4	9.7	6.3	3.8	1.3
16	61.5	0	0	0.2	0.7	1	1.7	2.9	6	7.2	8.6	6.6	2.8
17	66	0	0.1	0.1	0.3	0.7	0.9	2.5	3.6	6.2	7.1	6	5.1
18	72	0.1	0.1	0.1	0.1	0.7	1	0.9	2.1	3.4	5.5	4.9	6.5
19	82.6	0	0	0.2	0	0.1	0.5	0.6	1.5	2	2.3	3.8	3.9
20	84.9	0	0	0	0	0.2	0.3	0.7	0.5	1.2	1.5	3	3.4
21	84.9	0	0.1	0.1	0	0.1	0.2	0.4	0.3	1	1.3	3.3	4
22	90.9	0	0	0	0	0.1	0.5	0.3	0.3	0.5	1	0.9	2
23	90.7	0	0	0.1	0.2	0.2	0.1	0.1	0.4	0.4	0.4	1.2	1.9
24	99.7	0	0	0	0	0	0	0	0	0.1	0	0	0.1

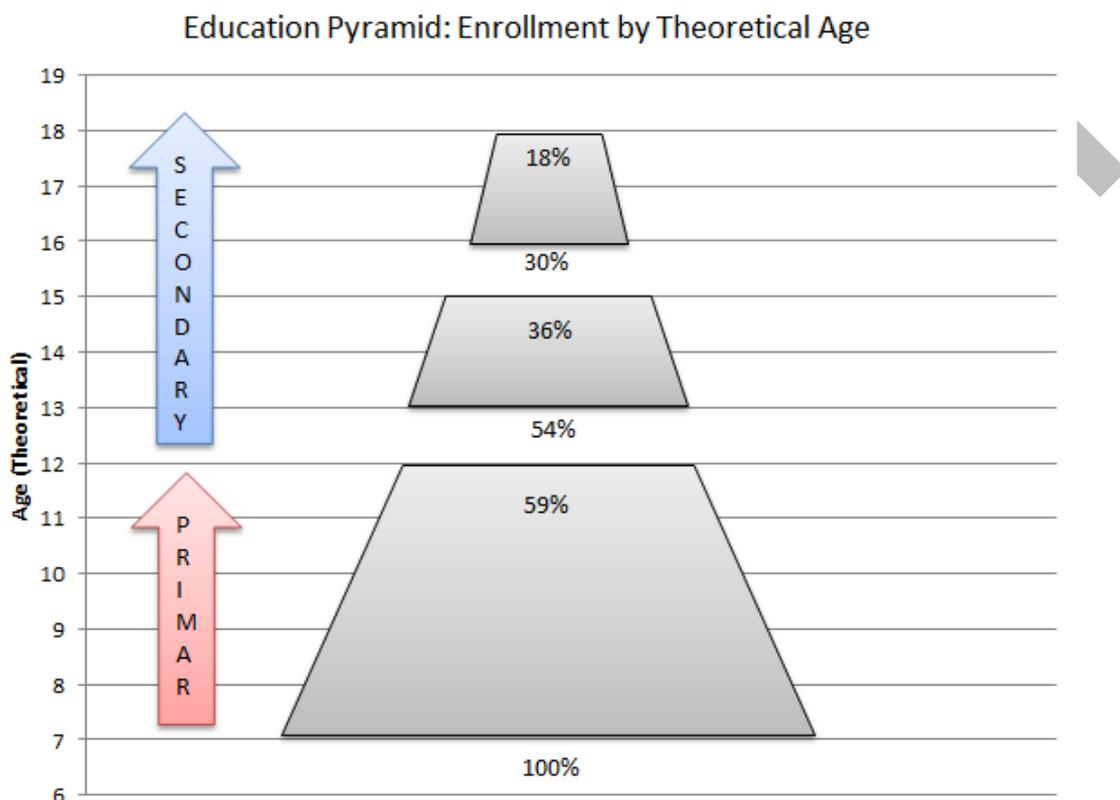
Note: Percentages might not add up to 100 due to omission of some categories.

⁶⁵ ALCS 2015, CSO

At age 7, 20% of the enrolled population is one grade above the official grade level (1st grade) suitable for their age. By age 11, only 14% are enrolled one grade above the official grade level—5th grade. We can also see that over 80% of people who are 19 years and above are out of school. Virtually everybody is out of school by the age of 24.

2.2.3 Education Pyramids

For each ten students, who start in grade one, less than six make it to the end of grade six and only two make it to the end of grade 12. The education pyramid below shows how the number of students enrolled at each level of education drops as we move from lower to higher grades. Only 59% of the number of students enrolled in first grade is in the schooling system at the end of primary school. This number decreases continuously until twelfth grade, where only 18% of the number of students in first grade is enrolled.



SECTION 3: THE SUPPLY AND DEMAND ISSUES ON ACCESS AND RETENTION

2.3.1 Access-Related Supply and Demand

In 2012, 618 new schools were built. This exceeded MoE’s target of 600 schools. As a result, the number of GE schools increased from 14,071 (in 2011) to 14,693 (in 2012), 6,376 of which are primary schools. Out of the total GE schools, 16% are girls’ schools, 30% are boys, and the remaining 54% are co-educational schools⁶⁶. There has also been new recruitment of teachers

⁶⁶ Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

over the years. Between 2001 and 2013, 187,000 teachers were recruited, 70% of whom teach at the primary level.⁶⁷

Access-related supply and demand

In 2010/2011, 29% of school eligible children were attending the first grade of primary school⁶⁸. Gender differentials exist, with attendance at 26% for girls and 32% for boys; however, significant differentials exist by region and in urban versus rural areas. In the Southern region, for instance, the school attendance indicator is 12%, while it reaches 45% in the Central region. Children's entry into primary school is timelier in urban areas (43%) than in rural areas (26%). A positive correlation exists between the mother's education level and the household socioeconomic status. Of children aged 7 whose mothers have at least secondary education, 49% were attending the first grade. In wealthy households, the proportion is around 45%, while it is 22% among children living in the poorest households.

Primary school attendance

The table below provides the percentage of children of primary school age (7-12 years) who are attending primary or secondary school⁶⁹. Only 55% of children of primary school age (7-12) are attending school. In urban areas, 78% of children attend school while in rural areas attendance is only 50%. The proportion of children attending primary or secondary school increases with the child's age up to the age of 11. Attendance starts to decrease from age 12. Primary school attendance shows significant variance between children living in the poorest households (40% attendance) and those living in the wealthiest households (79% attendance).

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), Afghanistan, 2010/11						
	Male		Female		Total	
	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted) ¹	Number of children
Region						
Central	87.6	1,361	67.4	1,278	77.9	2,639
Central Highlands	83.1	302	71.8	312	77.4	614
East	67.2	1,221	41.8	1,040	55.5	2,261
North	65.0	1,269	56.8	1,229	60.9	2,499
North East	65.5	1,380	51.0	1,328	58.4	2,708
South	28.6	1,496	13.5	1,215	21.9	2,710
South East	66.1	1,138	30.4	857	50.8	1,996
West	60.2	1,306	50.8	1,165	55.8	2,471
Residence						
Urban	82.5	1,605	72.8	1,527	77.8	3,133
Rural	58.9	7,868	40.6	6,897	50.4	14,766
Age at beginning of school year						
7	50.8	1,913	41.4	1,824	46.2	3,737
8	55.4	1,430	48.3	1,259	52.1	2,690

⁶⁷ Afghanistan National Education for All (EFA) Review Report 2015, Ministry of Education, Islamic Republic of Afghanistan, June 2014

⁶⁸ AMICS 2012, (Table 10.3)

⁶⁹ Ratios presented in this table are adjusted since they include not only primary school attendance, but also secondary school attendance in the numerator.

9	67.9	1,878	47.8	1,639	58.5	3,516
10	66.0	1,178	48.5	924	58.3	2,102
11	72.8	1,707	50.3	1,480	62.3	3,187
12	65.7	1,367	44.3	1,298	55.3	2,665
Mother's education						
None	60.8	8,807	43.2	7,766	52.6	16,572
Primary	88.8	311	79.7	319	84.2	630
Secondary +	93.7	349	90.6	336	92.2	685
Wealth index quintile						
Poorest	48.3	2,065	30.1	1,750	40.0	3,815
Second	55.2	1,900	37.5	1,620	47.0	3,521
Middle	59.8	1,927	39.4	1,663	50.4	3,589
Fourth	69.5	1,812	52.5	1,701	61.2	3,513
Richest	84.8	1,769	72.8	1,690	79.0	3,459
Total	62.9	9,474	46.4	8,424	55.2	17,898
¹ MICS indicator 7.4; MDG indicator 2.1						

70

Community-Based Education (CBE)

Community-based education (CBE) is an approach to expanding access to education in remote rural communities, which are beyond the reach of the official MOE system. Supported by NGOs CBE has offered primary early education grades 1-3 to about 200,000 children over the last six years. In 1394 the total number of CBE students were 234,330 (158,304 boys, 76,026 girls), while in the previous year the number had dropped to 197,945 equivalent to 2,3% of the number of General Education students⁷¹. The proportion of girls in CBE classes has shown a steady decrease from 56% in 1390 to 48% in 1394, except in 1393, where the proportion of girls was 64%.

MOE has developed a CBE policy, which lists the options for “handover” of NGO run CBE classes to the government. It contains three scenarios: 1) A new MOE primary school opens in the village; 2) An outreach class or satellite school linked to an MOE hub school continues in the village, and 3) The CBE class closes down and students are transferred to the nearest hub school for grades 1-3.

Examples of scenarios one and two are extremely rare. In most cases MOE terminated the community-based classes and transferred the students to an existing MOE school. The results have been devastating: virtually all girls and most boys, especially boys younger than grade 5 or 6 drop out when handover involves transfer to an MOE school as little as 3 kilometres away⁷².

The findings suggest that handover dropout is not related to resistance to girls’ education per se or to suspicions regarding government provided education. Parents are positive towards girls’ education, also at higher grades, and MOE schools are perceived as an avenue towards higher grades and HE⁷³.

⁷⁰ AMICS 29012 : 115, Table 10.4

⁷¹ MOE EMIS show the proportion of CBE students as 2,1% which is a percentage of students in all programmes, including TTC, TVET and Literacy classes. We find the proportion of CBE students as a percentage of general education students more appropriate.

⁷² “Handing over PACE-A Community-Based Classes to the MOE: A Study of Experiences and Outcomes”, USAID, 2011

⁷³ Ibid.

Research in the CBE approach⁷⁴ suggests that it holds significant potential for addressing key challenges in promoting access, retention and improving learning for children in remote communities. CBE totally eliminates gender disparity in attendance and significantly reduces the gender gap in achievement, while the quality of CBE was found to be similar to government run schools⁷⁵.

In their analysis of community-based schools Byrde et al 2015⁷⁶ found that the demand for education was found to be universally high for both boys and girls and most parents want their children to continue formal schooling through university or high school. They also found that the demand for schooling was consistently high irrespective of the variation in institutionalization of education following on the introduction of CBE classes.

The findings suggest that sustainability, “institutionalization”, of CBE is almost exclusively related to supply-side factors (teacher recruitment strategies and capacity and motivation of MOE administrative staff at District and PED level) and that more knowledge is required to determine what strategies might best ensure a sustainable CBE supply at village level.

There is little doubt, however, that the provision of education in close proximity to children’s homes, one of the hallmarks of the CBE approach, is critical for improving equitable access, retention and learning achievement for children in remote villages.

Secondary School Attendance

The secondary school net attendance ratio (NAR) is presented in the table below⁷⁷. About 32% of secondary school age children are attending school. The secondary school NAR for girls (21%) is more than two times lower than that of boys (43%). The secondary NAR of rural secondary school age children is two times lower than their counterparts in urban areas. The attendance of secondary school children living in the poorest households is about four times lower than their counterparts living in the wealthiest households. Regional disparities in secondary NAR are significant. Attendance in the Southern region (12%) is the lowest among all eight regions and about five times lower than attendance in the Central region (51%), where it is the highest. About one in ten (9%) children of secondary school

Secondary Net Attendance

⁷⁴ Burde, Middleton and Samii: Community-Based Schools and Institutionalized Access to Education in Rural Afghanistan, 2015; “Handing over PACE-A Community-Based Classes to the MOE: A Study of Experiences and Outcomes”, USAID, 2011

⁷⁵ “From: Community-Based Education in Afghanistan: Ensuring Sustainable Access”, PPT presentation at CBE Round Table 11 Aug.2015, by Burde, Middleton and Samii

⁷⁶ Burde, Middleton and Samii: Community-Based Schools and Institutionalized Access to Education in Rural Afghanistan,

⁷⁷ Ratios presented in this table are adjusted since they include not only secondary school attendance, but also attendance to higher levels in the numerator

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Afghanistan, 2010-2011									
	Male			Female			Total		
	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children
Region									
Central	65.8	6.6	1,272	36.0	6.6	1,337	50.5	6.6	2,609
Central Highlands	54.1	16.3	232	33.8	15.2	256	43.4	15.8	488
East	49.5	13.4	842	13.0	4.3	697	33.0	9.3	1,539
North	42.9	12.4	1,083	27.0	6.6	1,011	35.2	9.6	2,094
North East	40.4	12.6	1,177	23.7	6.2	1,256	31.8	9.3	2,433
South	19.0	3.2	1,477	3.0	1.1	1,123	12.1	2.3	2,600
South East	57.4	12.7	916	15.3	3.6	721	38.8	8.7	1,637
West	29.7	17.1	989	18.5	13.8	943	24.2	15.5	1,932
Residence									
Urban	61.8	8.9	1,469	48.6	5.8	1,407	55.3	7.4	2,876
Rural	38.5	11.0	6,519	14.5	6.6	5,937	27.1	8.9	12,456
Age at beginning of school year									
13	35.3	28.6	1,308	24.0	15.3	1,482	29.3	21.5	2,790
14	42.8	17.6	1,480	22.5	9.8	1,103	34.2	14.2	2,582
15	48.4	7.6	1,485	24.0	4.6	1,317	36.9	6.2	2,802
16	47.6	4.1	979	22.1	3.2	976	34.9	3.6	1,955
17	44.0	2.4	1,799	18.0	1.7	1,590	31.8	2.1	3,390
18	36.8	2.1	938	14.2	2.1	875	25.9	2.1	1,814
Mother's education									
None	40.9	15.1	4,895	20.1	8.9	4,319	31.2	12.2	9,214
Primary	67.1	12.5	166	49.6	13.1	186	57.9	12.8	353
Secondary +	83.5	9.5	204	79.0	5.2	192	81.3	7.4	396
Cannot be determined	47.1	4.5	218	8.1	1.7	358	22.8	2.8	575
Wealth index quintile									
Poorest	24.0	11.7	1,543	5.5	5.7	1,294	15.6	9.0	2,837
Second	32.6	10.2	1,496	10.9	5.6	1,350	22.3	8.0	2,846
Middle	37.8	11.4	1,589	13.8	6.0	1,452	26.4	8.8	3,041
Fourth	50.9	10.8	1,589	22.6	8.0	1,585	36.8	9.4	3,174
Richest	64.9	9.2	1,772	46.3	6.4	1,663	55.9	7.9	3,434
Total	42.8	10.6	7,988	21.1	6.4	7,343	32.4	8.6	15,332

¹ MICS indicator 7.5

78

Early Childhood Care and Education (ECCE) and Preschool

In Afghanistan, attention to ECCE has, so far, been negligible. Only 1% of children aged 36-59 months are attending pre-school in Afghanistan. Urban-rural and regional variances are significant. The attendance figure is eight times higher in urban areas as compared to rural areas. Among children aged 36-59 months, pre-school attendance is more prevalent in the Central region (3%), and lowest in the South East region (almost 0%). No gender differential exists, but differentials by socioeconomic status are significant. Almost 4% of children living in the wealthiest households attend pre-school, while the figure drops to 0.2% in the poorest households. The most significant background characteristics determining difference in children attending early childhood education is found in the mother's education level. For instance, pre-school attendance is 9% among the children of mothers with secondary education or higher, compared with less than 1% for the children of mothers with no education.

Systematic preschool programmes have been shown to improve learning. An evaluation of a preschool program for children from 5-7 years of age⁷⁹ showed significant results in improving school readiness skills of children prior to grade 1 (31 percentage points in mean scores of preschool children relative to control group) and in superior learning achievement of first grade children in comparison to children who had not attended preschool (16 percentage points higher mean scores).

⁷⁸ AMICS 29012 : 115, Table 10.5

⁷⁹ Aboud, F.E.W.: "Evaluating the Impact of AKF-Afghanistan's Preschool Programme in Afghanistan", AKF, December 2014

2. 3.2 Retention-Related Supply and Demand

Survival Rate

Ideally, an education system should assure that all students who start primary school graduate at the end of the last grade of primary education. The system's capacity for retention of pupils and overall efficiency is measured by calculating the percentage of pupils starting grade one who reach last grade of primary education. This survival rate to the last grade of primary education is of particular interest for monitoring the target for MDG 2, Achieve universal primary education. For Afghanistan the ANDS indicator is not defined as reaching the last grade of primary education, but grade 5 (Government of Afghanistan 2009).

ANDS indicator 3.b		MDG indicator 2.2	
Percentage of pupils starting grade one who reach grade 5 of primary education		Percentage of pupils starting grade one who reach last grade of primary education	
→	Both sexes →	→	Both sexes →
	86.7		84.2
→	Boys →	→	Boys →
	87.1		84.4
→	Girls →	→	Girls →
	86.0		83.9

Source: ALCS 2015

The percentage of children entering first grade who eventually reach the last grade of primary school (primary survival rate) is presented in the table below. The last grade of primary school in Afghanistan is Grade Six. Of all children starting Grade One, more than four in five (84%) eventually reach the last grade. Note that this number includes children that repeat grades and that eventually move up to reach the last grade. Compared with primary NAR, it can be concluded that the majority of primary school age children who enrol in primary school are likely to remain in school until the last grade of primary school. There are no dramatic differences in the survival rates among girls and boys, or between rural (85%) and urban areas (83%). There is, however, some difference in the survival rate among children whose mothers have no education (85%) compared to the children of mothers with primary education (90%) or secondary education (90%). Some differences among regions are found. The Central Highlands region (78%) and the Western region (78%) have the lowest survival rates while the Eastern region has highest survival rate (89%).

Children reaching last grade of primary school

Percentage of children entering first grade of primary school who eventually reach the last grade of primary school (Survival rate to last grade of primary school), Afghanistan, 2010-2011						
	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent attending grade 3 last school year who are attending grade 4 this school year	Percent attending grade 4 last school year who are attending grade 5 this school year	Percent attending grade 5 last school year who are attending grade 6 this school year	Percent who reach grade 6 of those who enter grade 1 ¹
Sex						
Male	94.3	97.6	96.8	96.6	98.5	84.7
Female	94.4	97.6	98.1	95.9	97.2	84.2
Region						
Central	95.3	98.0	96.7	96.6	98.0	85.5
Central Highlands	91.2	94.2	96.1	97.2	97.0	77.8
East	95.3	99.3	98.6	97.9	97.8	89.3
North	90.2	98.9	97.1	97.7	99.2	83.9
North East	95.7	98.2	97.1	98.1	96.8	86.6
South	100.0	98.3	96.2	92.7	99.2	86.9
South East	94.7	98.1	98.3	96.1	98.0	86.1
West	93.1	93.7	97.6	93.1	98.5	78.1
Residence						
Urban	95.1	96.1	96.0	96.4	98.1	83.0
Rural	94.1	97.9	97.7	96.3	98.1	85.0
Mother's education						
None	94.1	97.6	97.3	96.6	98.7	85.2
Primary	95.2	98.8	98.7	97.5	99.4	89.9
Secondary +	97.1	97.4	97.6	99.1	98.8	90.4
Wealth index quintile						
Poorest	92.4	97.4	96.4	97.2	98.5	83.0
Second	95.8	97.0	96.9	97.7	98.0	86.3
Middle	93.2	98.5	98.1	95.8	98.1	84.6
Fourth	95.0	98.5	98.2	94.3	97.7	84.7
Richest	95.0	96.4	96.8	96.9	98.2	84.3
Total	95.0	94.5	97.1	93.0	97.8	84.1

¹ MICS indicator 7.6; MDG indicator 2.2

Completion rate

The primary school completion rate is the ratio of the total number of students, regardless of age, entering the last grade of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year. Age 13 is used as the primary school graduation age in Afghanistan in this report.

Primary school completion and transition to secondary school

Primary school completion rates and transition rate to secondary school, Afghanistan, 2010-2011				
	Primary school completion rate ¹	Number of children of primary school completion age	Transition rate to secondary school ²	Number of children who were in the last grade of primary school the previous year
Sex				
Male	40.0	1,367	92.6	1,011
Female	20.8	1,298	93.5	516
Region				
Central	45.7	436	96.8	323
Central Highlands	43.8	81	93.8	72
East	40.2	264	87.5	160
North	40.8	386	93.9	250
North East	21.0	486	93.0	241
South	17.0	424	97.5	94
South East	27.7	232	93.2	196
West	22.7	356	86.7	190
Residence				
Urban	42.1	513	95.3	412
Rural	28.0	2,153	92.0	1,115
Mother's education				
None	28.9	2,446	93.2	1,179
Primary	44.1	100	91.7	73
Secondary +	56.8	117	98.9	98
Wealth index quintile				
Poorest	21.1	526	93.2	212
Second	25.9	521	94.2	230
Middle	26.2	527	92.6	243
Fourth	37.8	498	90.4	355
Richest	41.4	593	94.2	487
Total	30.7	2,665	92.9	1,527
¹ MICS indicator 7.7; ² MICS indicator 7.8				

As shown in the table above, at the time of the survey, the primary school completion rate was 31%. The primary school completion rate for girls (21%) is almost twice as low as that for boys (40%). The table points to a significant difference in the primary school completion rate in rural areas (28%) compared to urban areas (42%). Striking disparities are seen in the rates by region. The primary school completion rate in Southern region is the lowest (17%), while the highest is found in the Central region (46%). Children living in the poorest households are more than twice as likely to not complete their primary education (21%) by the appropriate age than their counterparts living in the wealthiest households (41%). The mother's education level also seems to impact this indicator. Only 29% of children aged 13 years whose mother has no education had completed primary education, in comparison with 57% of those children whose mother has secondary education or higher.

A majority of the children (93%) who successfully completed the last grade of primary school were attending the first grade of secondary school at the time of the survey. There are no significant differences found in the transition from primary to secondary school between girls (94%) and boys (93%), and only minor differences in rural areas (92%) from urban areas (95%).

Dropouts

The percentage of school starters who drop out before reaching grade six largely complements the survival rate. Overall, 14 percent of children who started primary school dropped out before the final level. There is little difference between urban and rural drop-out rates, but girls seem to drop out somewhat more often than boys (14.6 percent against 13.6 percent). Grade-by-grade drop-out rates tend to increase by advancement in primary school.

Education transition indicators, by sex and by residence (in percentages)⁸⁰

Sex and residence	Percentage of pupils starting grade 1 who reach		Percentage dropped out before reaching grade 6	Primary completion rate	Transition rate to	
	grade 5	grade 6			secondary school	tertiary education
Total	86.7	84.2	14.0	50.2	96.5	59.8
Boys	87.1	84.4	13.6	58.1	96.7	61.2
Girls	86.0	83.9	14.6	40.3	95.9	57.4
Urban	85.7	82.3	14.3	67.6	96.4	65.6
Rural	87.2	85.2	13.8	44.8	96.5	53.2

As previously noted, CBE handover dropout is very severe when CBE classes are closed down and students transferred to MOE hub schools. Distance is the main culprit. We elaborate on the correlation between distance, enrolment, retention and learning achievement in chapter 4.

2. 3.3. Systemic bottlenecks: Quantifying the supply and demand issues related to transition to post secondary education.

Since 2001, there has not only been an increase in enrolment at the primary and secondary levels, but the higher-education level as well. The chart below shows data from a 2013 MoE report.⁸¹ While the primary and secondary levels have received attention, the capacity of higher education has not grown in order to accommodate the students leaving secondary education. There are many systematic hindrances. The MoE has faced bottlenecks in the flow of funds. Construction of new facilities has not occurred at the necessary pace. Universities are forced to double their shifts, which leads to professors taking more classes, but having less time to advise students. Thus the quality of university education has decreased. This is all in the context of a higher-education system where only 5% of professors have PhDs; 36% have master's degrees.⁸² Furthermore, some students who pass the Kankor exam with low scores re-take it in the hopes of getting higher scores, which is required to get admission into engineering and medical schools. This causes undue strain on the resources required to administer exams. Some students with low-scores might join Teacher Training College (TTC) or TVET programs while they prepare to re-take the exams. In case they get better scores, they might switch to another stream of education, which is again a waste of TTC and TVET resources.⁸³

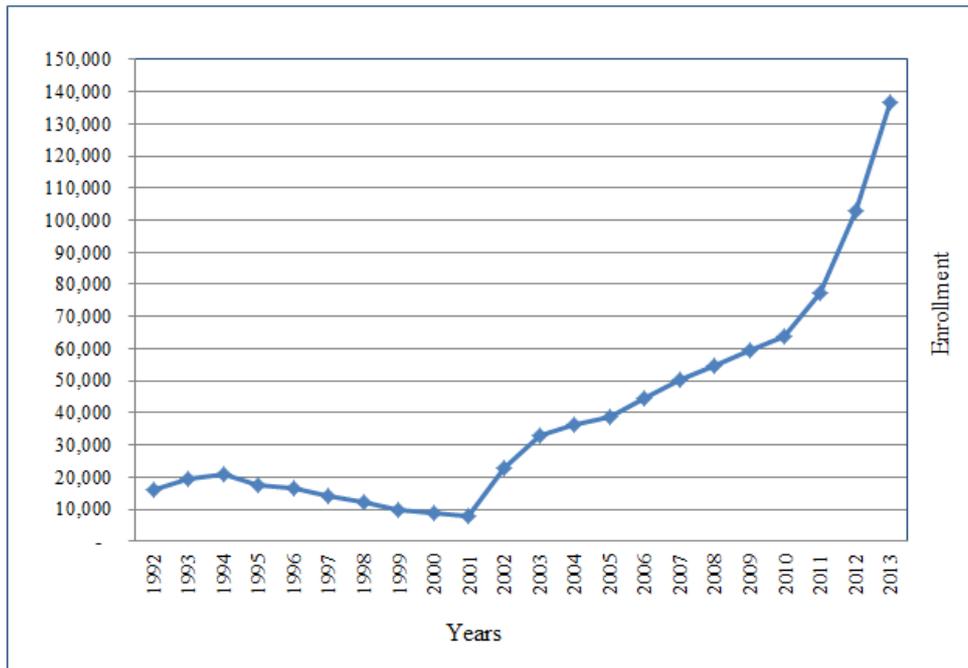
⁸⁰ ALCS 2015, CSO

⁸¹] Education for All and Higher Education – some often ignored consequences of success: The Case of Afghanistan, Fred M. Hayward, Ministry of Higher Education, December 2013

⁸² Ibid.

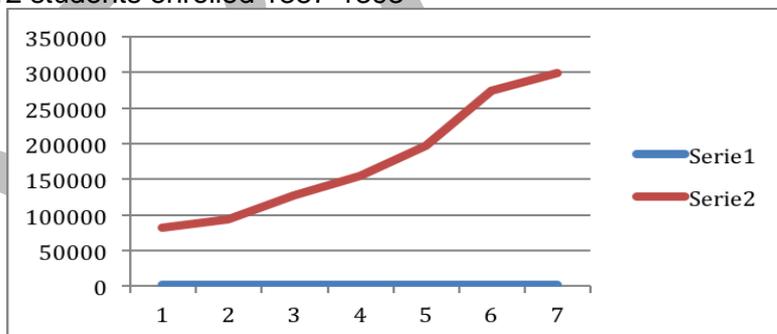
⁸³ Ibid.

Enrollments at Public Universities and Higher Education Institutions: 1992-2013



The available further education opportunities for secondary school leavers are grossly inadequate to the needs. There is a steady increase in the number of students reaching the highest grades of secondary education, and there is growing demand for higher education from young Afghans. In the five years from 1387 (2008) to 1393 (2014) enrolment at grade 12 almost quadrupled from 81553 students to 299325 and most of these want to enroll at higher education institutions.

Number of Grade 12 students enrolled 1387-1393⁸⁴



Admission to higher education institutions, however, is severely restricted. In 2015, 219,145 students had participated in Kankor examination. Of these only 54,737 or 25% of high school graduates managed to pass the entry test for governmental higher education institutes while 36,750 others would be enrolled in semi-higher education governmental institutes. Further, 27,000 high school graduates would be enrolled to private higher education institutes⁸⁵. The total number of graduates in 1393 was 290,450, which means that a total of 171,963 students, more than half of 1393 school graduates, were forced to look elsewhere for alternative education, training and job opportunities.

⁸⁴ Enrolment figures 1387-1393 from MHESP 2015-2020, and figures 1390 -1393 from MOE EMIS

⁸⁵ According to Acting Minister for Higher Education Ministry, Mohammad Osman Babary in News – Afghanistan: “Reported Fraud in Kankor Exam Sparks Concerns in Parliament”, Saturday, 04 April 2015

Currently, the number of public and private higher education institutions stands at 126. This is mainly due to a massive growth in the number of private institutions. In response to the rising demand their numbers grew 46 times from 2 in 1385 (2006) to 92 in 1393 (2014).

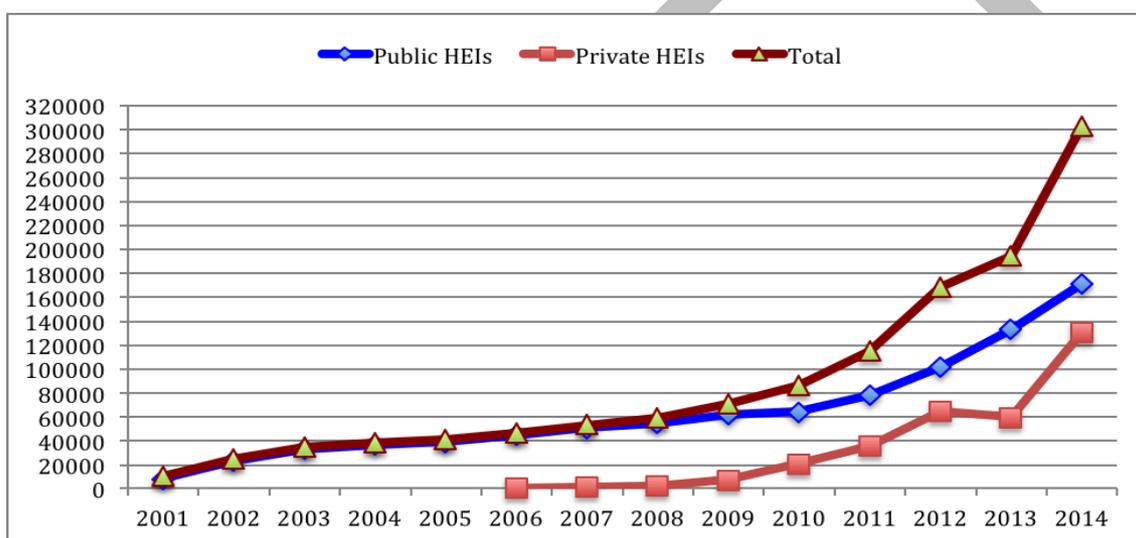
Growth of Public and Private Higher Education Institutions 2001 to 2014

Year	2001	2006	2012	2014
Public	6	19	31	34
Private	0	2	66	92
Total	6	21	97	126

Source: MoHE data

The total number of HE students increased by more than 150 % in the three years from 1390 (2011) – 1393 (2014) from 120.000 to 300.00 in the period.

Growth of Students in Public and Private Universities 2001 to 2014



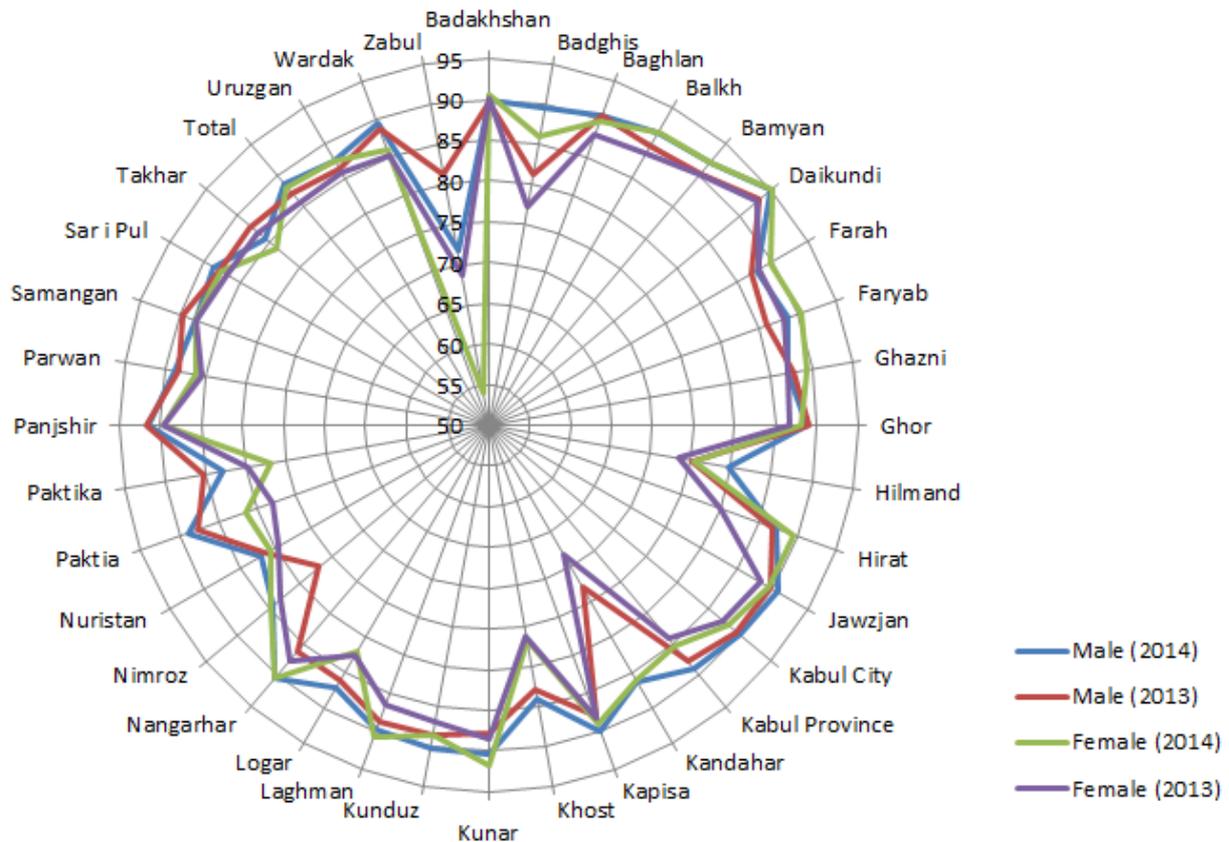
Source MOHE data

SECTION 4: INTERNAL EFFICIENCY

2.4.1 Repetition

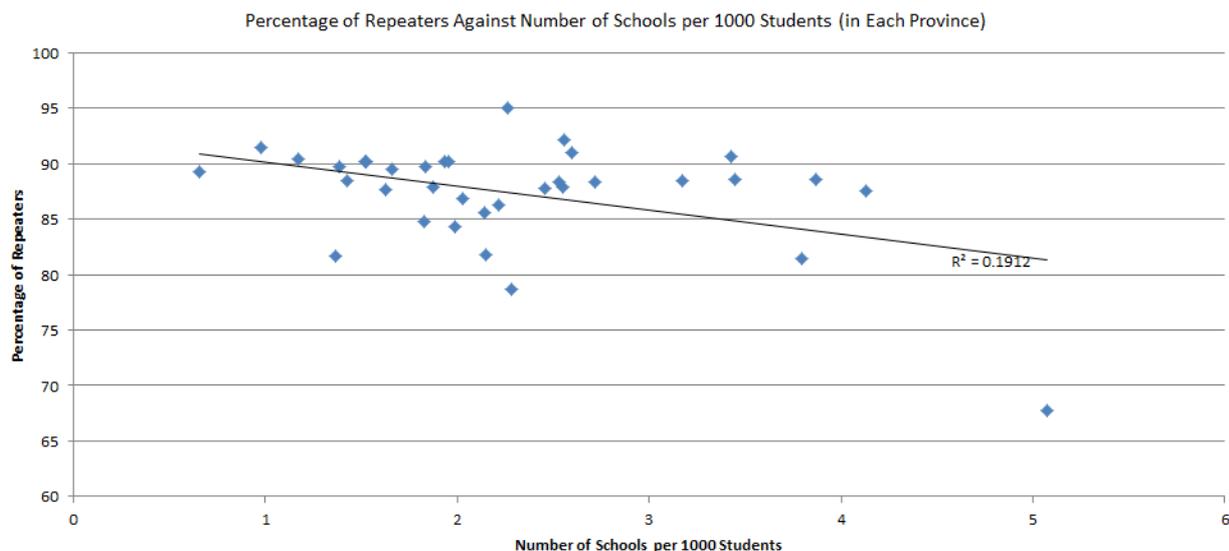
We do not have enough data to accurately gauge how well the education system transitions students from one grade to another. We have enrollment data from EMIS available for only 4 years (2012-2014). The data on new enrollment at each grade is only available for 2 of those years (2013 and 2014), that too as an aggregate for grades 1-12. This means we cannot trace the movement of each cohort of student for more than 3 years, and certainly not at a grade level.

Percentage of Repeaters



Nevertheless, we were able to use the EMIS data to calculate the percentage of repeaters (difference between total enrolled and number of new students) in each province as shown in the chart above⁸⁶. The average percentage of male repeaters was 87.9 in 2014 and 86.5 in 2013. The average percentage of female repeaters was 86.12 in 2014 and 84.38 in 2013. The proportion of both male and female repeaters increased from 2013 to 2014, but repetition is higher for male. It is possible that people repeat in order to get better marks on the Kankor exam. The teacher training route to go to higher education, rather than the TVET route, is considered more prestigious but is also requires higher Kankor marks. Percentage of female repeaters is particularly lower than percentage of male repeaters in Khost, Paktia, Paktika, and Zabul. This could also be explained by the fact that those females likely to repeat are not enrolled to begin with, as would be reflected by low female attendance.

⁸⁶] Education Management Information System (EMIS) database, Ministry of Education, August 2015 (<http://moe.gov.af/en/page/1831/3031>)



In the graph above, we plotted the percentage of repeaters in each province against the number of schools per 1000 students. While there does not seem to be a stark correlation between these two factors, a higher number of schools per 1000 students is generally indicative of a lower percentage of repetition. In fact, about 19% ($R^2=0.19$) of the variation in the percentage of repeaters in the provinces is explained by the density of schools alone.

2.4.2 Internal Efficiency Coefficient

The coefficient of efficiency is defined as the ideal (optimal) number of pupil-years required (i.e. in the absence of repetition and dropout) to produce a number of graduates from a given school-cohort for a cycle or level of education expressed as a percentage of the actual number of pupil-years spent to produce the same number of graduates. Input-output ratio, which is the reciprocal of the coefficient of efficiency, is often used as an alternative. N.B. One school year spent in a grade by a pupil is counted as one pupil-year.⁸⁷ However, we were not able to calculate the IEC as the required data were not available.

SECTION 5: OUT-OF-SCHOOL CHILDREN

2.5.1 Estimation of the Share and Number of Out-of-School

The MoE estimates that there are over 3.5 million children out of school. According to the MoE, 1,080,692 students-- 15% of the total number of students in 2011-- were permanently absent. This is the total number of permanently absent student accumulated over the three years leading up to 2011. This allows us to estimate that about 5% of the total student population drops out of school every year. Afghanistan Swedish Committee estimates the rate to be closer to 7-8%.

The school attendance information from the ALCS 2013-14 indicates that an estimated 2.3 million primary school age children in Afghanistan miss out on education. The large majority of these (90 percent or 2.0 million) are from the rural or Kuchi populations. Girls are also overrepresented among the non-attenders, with 1.3 million not in school, compared to 977 thousand boys not attending. The absolute numbers of persons of secondary and tertiary education age who are not participating in education are in the same order of magnitude – 2.0 and 2.3 million, respectively), due to the combination of lower attendance ratios at these levels and smaller base populations. Whereas the number of primary school age children who are attending education has remained stable since 2011-12, the number, who are not attending increased with 220 thousand.

⁸⁷ Education Indicators Technical guidelines, UNESCO UIS, 2009

2.5.2 Who are the Out-of-School Children?

Reasons for non-attendance in education are a multi-faceted issue. It involves, among others, economic, cultural, security, health and distance considerations. ALCS 2013-14 collected information about persons in the eligible ages 6 to 24 who ever attended education, but no longer attended at the time of the survey. As can be seen in the table below, the reasons why persons dropped out from education vary considerably by age, residence and sex.

Economic considerations figure importantly as the main reason for no longer attending school. Their prominence increases with the level of education: it was the main reason for 15 percent of primary school age children, but twice as high (30 percent) for persons with tertiary education age. It is worth noticing that from the mentioned economic reasons, it was not so much direct costs that were mentioned, but foremost the need for the child to work. In economic terms, 'opportunity costs' – income foregone if attending school – were more important than direct costs. This importance of opportunity costs was especially observed for males.

Population 7-24 years not attending school, by school age, sex, and by residence, reason for not attending (in percentages)⁸⁸

Fejl! Objekter kan ikke oprettes ved at redigere feltkoder.

Physical access to schools does not figure prominently among reasons mentioned for no longer attending school. Obviously, problems with distance to school are mostly an issue in rural areas. The problem of distance or access is virtually absent in urban areas. Also, security considerations hardly figure in urban areas, but are a major concern for primary school children in rural areas: for more than one in five non-attenders (21 percent) and for even 30 percent of non-attending primary school girls this was the major reason to drop out from school. The other main difference between urban and rural non-attendance is in the category 'Problems with school' for primary school age children. The difference can be traced back to the finding that children who "do not like school" or "do not learn enough" are mostly found in urban areas.

While security concerns are also obstacles for school attendance, they seem to be concentrated in primary school ages and especially among girls: overall, for 22 percent of girls aged 7 to 12, this was the main reason to drop out from school. The targeted attacks on girls' schools and female pupils that occur across the country may play an important role for the observed gender difference.

In the ALCS 2015 two reasons for non-attendance that are closely related to age are the consideration that children are too young for school and the one that sufficient education has been obtained. The first is almost exclusively mentioned for primary school age children, but it is remarkable that many households consider the age of seven – and sometimes even higher ages – too young to attend school. For around one in five persons aged 19 to 24 (21 percent), further schooling is not considered necessary. As can be expected, this figure is lower for children in secondary and primary school ages, 8 and 3 percent, respectively.

We also used the previous NRVA dataset to explore why people stay out of school. Some of the main reasons are shown in the chart below⁸⁹.

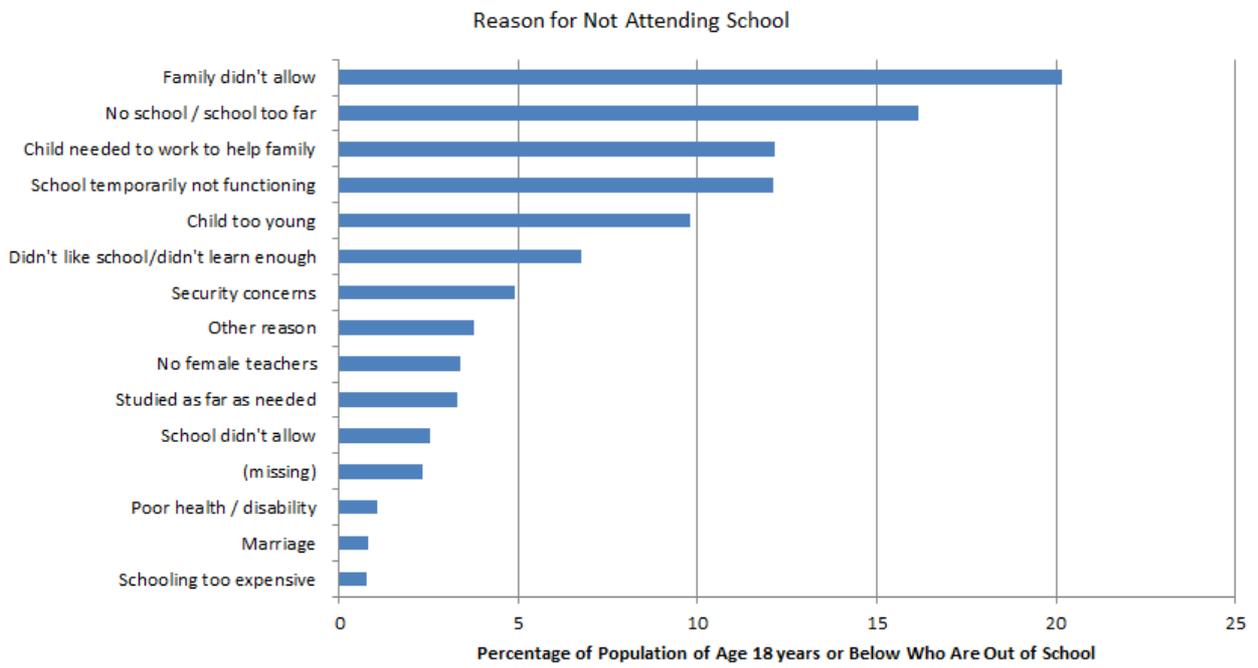
We found that about 20% of the population of age 18 or below who are out of school do not attend because their families do not allow them to.

What is more noteworthy, however, is the fact that the category "no school/school too far" is mentioned by 17 % of respondents and in this set comes in as the second most important reason.

⁸⁸ ALCS 2015, CSO

⁸⁹ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

This draws our attention to the importance of school accessibility, particularly in rural areas. About 80% of rural households are more than two kilometres away from the closest primary school!



DRAFT

CHAPTER 3

COST AND FINANCING

Introduction

The education sector is a key government priority, and in 1393 (2014) it accounted for 14.1% of total government expenditure (excluding debt service), 15.7% of government recurrent expenditure, 9.9% of development expenditure and 3.8% of GDP. While education expenditure at this level appears relatively low compared to equivalent developing countries, given Afghanistan's large school age population, this percentage allocation is affected by the high levels of government security expenditure.

Afghanistan is one of the most highly aid dependent economies. It currently receives approximately \$US6 billion of civilian official development assistance (ODA) per year. In addition, it receives financial support for military and security sectors, with the total including ODA, at approximately \$15 billion per year.

The government has domestic revenue constraints, and is heavily reliant on donor aid to fund the development budget and part of the operating budget. In the education sector, donor ODA is used to fund the development budget and part of the operating budget, and off-budget project interventions. The MOE expenditure (1391-1393) was estimated at \$US2.5 billion with at least 43% funded by donors. Of the donor aid, only 25% of the expenditure was on budget, with the remaining development expenditure off-budget. For MOHE, the total expenditure (1391-1393) was estimated at \$US 360 million with at least 53% donor funded, and with approximately 35% of donor aid being on-budget.

This low level of on-budget support for both MOE and MOHE, indicates that there are significant opportunities to improve aid effectiveness in the education sector. The donor performance in the education sector is not inline with agreed on-budget targets. At the Tokyo Conference (2012), government and donors endorsed the target of 50% of civilian aid to be on-budget. This overall target was met by donors in 1393. Given current development budget expenditure rates, to achieve the full impact from moving education funds on-budget, coordinated improvements in line ministries absorptive capacity (ie. procurement, monitoring and implementation) will be necessary.

The demand for education at primary, secondary, teacher education, TVET and higher education levels has increased over the period 1390 to 1393, with increases in student number in general education (primary and secondary) of 20%, in teacher college students of 45%, TVET student numbers have almost doubled and in public higher education the student numbers have increased by almost 150%. With the literacy program, the number of literacy students attending school has declined slightly, and literacy courses have been maintained at a relatively constant level. While there has been an increase in the teacher numbers and schools, the increase has not kept pace with student expansion and the pupil teacher ratios have risen.

Qualified teachers are in demand, and in the current labor market a teaching qualification provides a graduate with better prospects, higher employment rates and income. As indicated in the CSO ALCS (2013/2014) 72% of those with a teaching qualification work in the public sector. Also, in terms of salaries, their salaries are competitive, and as part of the public sector are in the income group classified as having the highest mean and medium monthly earnings.

The public recurrent expenditure in total and per student in MOE and MOHE, reflects this financial pressure as the salary component dominates recurrent expenditure, with very limited financial resources remaining for materials, operations and maintenance. For MOE in 1393, the goods and services expenditures were reduced to 2.6%, and operations and maintenance was 1.6% of the recurrent budget. MOHE has a lower % salary share in their recurrent budget, but has a large non-salary cost in providing dormitories and meals for all students, and likewise has very limited resources for materials, operations and maintenance.

While recurrent budgets and expenditure increased, except for general education it did not keep pace with the increase in student number and the unit cost per student declined. Whether this reduced unit recurrent cost per student reflects economies of scale and efficiency gains, or a potential decline in quality is to be determined. The evidence indicates rising PTRs and declining expenditure for non-salary costs including O&M, are potential risks to both quality and delivery sustainability.

In general education, TVET and higher education sub-sectors, the % of GDP per capita declined from 1390 to 1393. Using the general education % of GDP as the base, the trend indicates the rising resource cost, with a multiple for TVET of 5.1 and for higher education of 7.3. A similar trend applied in 1390, but at higher multiples in all sub-sectors. Estimates were not possible for teacher education and literacy programs due to the lack of disaggregated financial data.

The public recurrent expenditure per pupil in 1393, indicates the significant cost increase involved per student as move from general education (primary and secondary), to TVET and higher education. The unit costs are dominated by salaries (teacher/ non teacher) and living costs provided by public TVET and higher education institutions that account for the major expenditure under non-salary operational costs.

While limited data is available on the private household costs of education, as indicated in the ALCS (2013/2014) for poor and low income households, it is the need for the child to work, that is the opportunity cost of the income foregone from attending school, that is a critical factor for non-participation. This factor was more important than the direct costs of education.

There is a major requirement for new schools with supporting facilities, and the need to invest and improve the existing school infrastructure there is a large capital investment required over the medium to long term. The estimates of the investment required⁹⁰ greatly exceed government and development partner current and planned future investment levels. The identified fiscal constraints emphasize the critical importance of achieving value for money in school construction design, in contract tendering and award, and in contract construction supervision.

The government is aware of the large unfunded O&M cost, and since 1392 it has implemented reforms in nine ministries, including MOE and MOHE, to improve O&M. Given the large expenditure and budget increase required, with indicative estimates of over \$US150 million per year, to implement a sustainable O&M policy and practice in the education ministries, there will need to be an overall investment in existing government systems, with major institutional capacity enhancement to cost effectively manage O&M on the required scale.

In 1393 the education sub-sectors were operating with higher PTRs and very limited non-salary allocation expenditure. This indicates that if student numbers increase as expected, and quality is to be maintained, increased financial and human resources will be required. The challenge is the

⁹⁰ MOE, National Education Strategic Plan (2015-2020) Draft (June 2014); MOHE National Higher Education Strategic Plan (2015-2020), (April 215); A. S. Raouf paper, School Facilities in Afghanistan Current Gaps and Challenges for the Future, 2013.

tight medium term fiscal projections for the economy and education sector, which will mean increases are likely to be limited. In this environment a review of all expenditure areas for possible efficiency improvements and improved prioritization should be undertaken. For such a review to be effective it will require the ministries to have detailed disaggregated physical and financial data, so all cost areas, salary (teaching, non teaching), administration staff (central and provincial), and non-salary costs and can be thoroughly assessed.

SECTION 1: PUBLIC EDUCATION EXPENDITURE

1.1 Government Spending

The education sector is a key government priority, and in 1393 (2014) it accounted for 14.1% of total government expenditure (excluding debt service), 15.7% of government recurrent expenditure, 9.9% of development expenditure and 3.8% of GDP. While the government has domestic revenue constraints, and is having to fund significantly higher security expenditure, education expenditure over the period 1390 to 1393 (2011-2014) has been at levels ranging from 11.4% to 14.8% of total government expenditure, and from 2.7% to 3.8% of GDP. Though education expenditure at 14.1% of total government expenditure appears relatively low compared to equivalent developing countries given its' large school age population, this percentage allocation is affected by the high levels of government security expenditure.

Expenditure in the education sector has increased from 32.8 billion Afs to 44.4 billion Afs over the period 1390 to 1393. The government education sector expenditure is predominantly for Ministry of Education (MOE) and Ministry of Higher Education (MOHE), and under this sector budget expenditure heading, funding is also allocated a number of other agencies (Ministry of Information and Culture, National Science Academy, General Directorate of Radio Television Afghanistan, and Olympic Committee). The data, as outlined below in Figure 3.1, and provided in detail in Annex Table 3.1A, indicates that MOE and MOHE in total accounted for 98% of the education sector expenditure in 1393, and in undertaking the allocation to schools and per pupil, it is only the expenditures from MOE and MOHE that are included in the estimates. The analysis is undertaken for the period 1390 to 1393 (2011 to 2014), with the more detailed analysis is undertaken on 1393 data. The allocation of the education sector expenditure is analyzed across education sub-sectors and in terms of its use for recurrent and development expenditures. When all 1394 (2015) data is available the analysis will be updated.

Figure 3.1

Educ sector/ MOE MOHE GDP

The data presented in this chapter has been sourced from a number of institutions: MOE (EMIS, AFMIS), Central Statistics Office (CSO) (NRVA, ALCS and statistics), Ministry of Finance (MOF) fiscal bulletins, budget papers and MOF donor assistance database, MOE and MOHE published reports, joint sector reviews and draft education strategic plans, IMF, and other development partner education sector documentation. In some instances, due to the absence of detailed data, disaggregated analysis is not feasible, and where this occurs it is noted. One outcome is to illustrate where further studies and detailed assessment work is required. The detailed tables prepared are included in the Annex to this chapter. The MOE human and financial data is not available to assess primary and secondary schools separately, as a significant number of the schools are combined primary and lower secondary, or combined with both lower and upper secondary. For this reason, primary and secondary schools are treated as one unit for the purpose of this analysis.

Over the period (1390 to 1393) the demand for education at primary, secondary, TVET and higher

education levels have increased. As outlined in Table 3.1 there has been an increase in student numbers in each of these categories from 1390 to 1393 in general education (primary and secondary) of 20%, for public TVET student numbers have almost doubled and in public higher education the student numbers have increased by almost 150%. Details are provided in a later section. To provide resources to teach these students there has been an increase in teacher numbers and schools, with increased numbers of students in teacher training institutions.

1.2 Evolution of Public Expenditure by Type of Spending

MOE Expenditure. In 1393 MOE total expenditure accounted for 86.1% of the education sector expenditure. Of the MOE's total expenditure it spent 82.5% on recurrent expenditure and 17.5% percent on capital/development expenditure. This high level of recurrent expenditure has been consistent over the period 1390 to 1393, with three years being in the low 80%, and in one year (1391) rising to 92.4%. Refer Annex Table 3.1B. While on an annual basis the recurrent budget allocation is almost always fully utilized, the development budget expenditure rate is consistently significantly lower of the order of 50%, for 1393 it was 51%, reflecting optimistic programming, contracting and implementation capacity constraints. The development budget includes a large carry forward of funds unspent that were programmed in the previous year, and this is combined with the new development funding in the current budget year. In recent years the MOE carry forward in the development budget has been around 50% of the development budget allocation.

The salary share of the recurrent expenditure has remained high, over 1390 to 1393 ranging from 75% to 84% of total education sector expenditures, and this has resulted in only a small amount remaining for expenditure on non-salary items, accounting for between 5.9% to 8.7% of total expenditures. Refer Annex Tables 3.2A and 3.2C. The breakup of these expenditures indicates that goods and services (which includes school teaching materials) has decreased over the period from 6.1% in 1390 to 2.6% in 1393. Similarly, there is a very low allocation to operations and maintenance (1.6% in 1393), and low levels of asset acquisition. Overall the expenditure pattern, indicates the salary component dominates with limited resources available for technical materials, and sustainable maintenance of infrastructure.

MOHE Expenditure. In 1393 MOE total expenditure accounted for 11.8% of the education sector expenditure. Of the MOHE's total expenditure it spent 72.8% on recurrent expenditure and 27.2% percent on capital/ development expenditure. This level of recurrent expenditure has been consistent, ranging between 66% to 78% over the period 1390 to 1393. The salary share of the recurrent expenditure has ranged between 34.7% and 47% of the total MOHE expenditure over the period 1390 to 1393. Refer Annex Tables 3.2B and 3.2D. While this percentage is significantly lower than for MOE, there is a key difference, as public higher education institutions have to provide dormitories and meals to their students and this is a significant non-salary expenditure (included under goods and services), which over the period 1390 to 1393 accounted for 32.7% to 25.7% in 1393 of total MOHE expenditures. The MOHE National Higher Education Strategic Plan (NHESP) 2015-2020 (April 2015), indicates that the dormitory and subsistence expenses account for 20 to 35% of the recurrent budget. Only a small amount was detailed as expended on other non-salary items (assets), accounting for between 0.1% to 0.3% of total MOHE expenditures in 1392 and 1393. Overall the expenditure pattern indicates the salary and the goods and services (dormitories and meals) components dominate, with limited resources available for technical materials, and sustainable maintenance of infrastructure.

Over the period 1390 to 1393, development expenditure accounted for between 22% to 34% of total MOHE expenditures. While on an annual basis the recurrent budget allocation is almost always fully utilized, the development budget expenditure rate is consistently significantly lower, at approximately 40%, reflecting optimistic programming, contracting and implementation capacity constraints. The development budget allocation, as per MOE, has a large carry forward of unspent

funds from the previous year that are included in the current year.

1.3 The Distribution of Spending Across Sub-Sectors

In 1393, MOE and MOHE accounted for 86.9% and 10.9% respectively of total education sector recurrent expenditure. Over the period, 1390 to 1393 recurrent expenditures have increased, for MOE from 22.9 billion Afs to 31.2 billion Afs, and for MOHE from 2.2 billion Afs to 3.9 billion Afs. During this time the number of students in general education (primary and secondary) have increased from 7.5 to 9.07 million, for public TVET from 41,080 to 80,830, and for public higher education, from 77,340 to 170,500.

While primary and secondary education dominates in terms of student numbers and expenditure, there has been a rapid expansion in higher education student numbers since 1390. In terms of the allocation of recurrent expenditures, over the period 1390 to 1393 MOE recurrent expenditures declined slightly from 88% to 86.9%, while MOHE increased from 8.1% to 10.9% of total education sector recurrent expenditure.

The MOE implements five programs, and in 1393 each of the programs accounted for the following (as a percentage of MOE recurrent expenditure): general and Islamic education (which covers primary and secondary education) (86.2%); curriculum development and teacher training (3.1%); TVET (3.9%); literacy (1.7%) and education management (5%). MOHE implements one program for the public higher education institutions. Refer to Annex Tables 3.3A and 3.3B for details.

INSERT Table 3.1 Summary

1.4 Detailed Analysis of Public Recurrent Expenditure for the Most Recent Year

In 1393 MOE had 261,700 staff, consisting of 204,900 teaching staff (182,200 civil servants and 22,700 contract staff) and 56,900 non-teaching/ administration staff (15,900 civil servants and 41,000 contract staff). In total 78.3% of the MOE personnel are teachers and 21.7% are non-teaching/ administration staff. Refer Annex Table 3.4 for details.

With the five MOE programs, there is a range in the salary component (as a share of each program's total recurrent expenditure), while for general education and the literacy program both have approximately 94% of their expenditure on salary the other programs (TVET, curriculum development and teacher training, education management) have salary component ranging from 75% to 79.7%. The salary and non-salary components reflect both the program activities undertaken. Refer Annex Table 3.3 B for details.

For the curriculum development and teacher training program, this program includes both teacher training colleges and their students, as well as the MOE in-service teacher training courses for existing teachers to improve their skills. The non-salary component is higher as the colleges have to provide students with meals (ie. food costs 11% of expenditures). Financial data is not available to delineate the costs associated with each of these two sub-programs. After accounting for food expenditures only approximately 8% remains for all other non-salary costs. In the TVET program the food costs account for 15.5% of total program expenditures, again reflecting student meal costs, and after this is included with salary expenditures it only leaves approximately 8% for all other non-salary costs.

With the literacy program there are two distinct sub-programs, literacy schools and literacy courses. Literacy schools consist of students studying from grade 1-12 in schools similar to general education schools, and in 1393 student number was 18,189. EMIS records the student number.

The literacy courses are separate, and for a duration of 9 months, and are provided by a number of implementing partners. In the last four years over 500,000 students have undertaken these courses per year, MOE for example accounted for 23% of the students in 1390. Employees from a range of different ministries (mostly interior, defense & intelligence) also take part in these courses with the respective line ministry covering teacher salary and other costs, and MOE only providing textbooks. For other general literacy learners, all course costs are covered by MoE. In terms of non-salary expenditure only 5.8% remains to cover all other costs. The education management program has an important role in overall MOE administration.

1.5 External Funding

Afghanistan is currently one of the most highly aid dependent economies. The OECD lists Afghanistan as the top official development assistance (ODA) recipient (2011-2013) with an average of \$US 6.3 billion per year⁹¹. This figure represents civilian aid and excludes the military security support.

It is important to note, given the OECD definition of ODA, that estimates of total aid and international assistance for military expenditures indicate aid shares to Afghanistan, are much higher than the OECD data, as these later estimates include assistance to Afghanistan National Security forces⁹². World Bank estimated total military and civilian aid in 2010/2011 was \$US15.7 billion, equivalent to the GDP in 2010/2011. Foreign aid disbursements (security related and civilian) were at nearly the same level. The security related expenditure is larger than the civilian expenditure. Civilian aid, which is the ODA focus, is estimated at over \$US6 billion per year. It is important to note that the security related component excluded the large amount spent on international military forces.

With donor aid, the funds are committed either on-budget or off-budget. For the on-budget funds they are used for both operating budget and the development budget, and can be in the form of discretionary or non-discretionary grants. The on-budget donor funds account for a large part of government expenditures, as indicated in the 1393 national budget the international assistance accounted for 64% of total national budget. For donor funding there has been a shift, with more funds provided as non-discretionary grants and less as discretionary grants. This change does constrain the government's ability to fund priority interventions.

In terms of the delivery of this aid, it is provided through: (i) on-budget support to finance the Afghanistan security forces (army and police), the development budget and operating budget; (ii) development partner/ donor projects on the external budget, or off-budget which is outside the government budget; and (iii) donors provide security related aid outside the budget to finance operations and investments of the military, and provincial reconstruction teams.

In 2010/2011 the World Bank estimated the allocation in each of the above categories was \$US1.9 billion, \$US5.2 billion and \$US8.6 billion respectively⁹³. With the phased reduction in the international security since 2012, the security related expenditure has significantly decreased, and as part of the transition process more financial support has been provided to the Afghanistan security forces. These on-budget funds have increased, and the Combined Security Transition Command- Afghanistan (CSTC-A) fund which is operating budget support to the military, accounted for approximately \$US1.9 billion in the 1393 national budget.

⁹¹ OECD, Development Aid at a Glance, Statistics Developing Countries, 2015 Edition

⁹² World Bank, Afghanistan in Transition, 2013

⁹³ World Bank, Afghanistan in Transition, 2013

ODA Funds. In terms of ODA funds, at the Tokyo Conference (2012), an agreement was reached between MOF and the development partners, that a target of 50% of civilian aid was to be on budget by 2014. MOF have indicated that this target, of 50%, has been achieved in 2014.

With the on-budget ODA in the period 2012-2014, 70% of funding was into the four pooled funds (Afghanistan Reconstruction Trust Fund (ARTF), Afghanistan Infrastructure Trust Fund (AITF), Law and Order Trust Fund of Afghanistan (LOTFA) and Afghanistan Peace and Reintegration Program (APRP), and 30% was from multi and bilateral partners. Of the 54 multi- and bilateral donors supporting Afghanistan, only 9 achieved the 50% target in 2014. Also, while bilateral donors provided 86% of the ODA in the period 2012-2014, they implemented more than 50% of ODA directly, and since 2012 have increased their use of pooled funding for aid delivery. In 2014, with on-budget ODA 73% of disbursement was from the four pooled funds and 27% was from multi/ bilateral partners. Of the 50% of the civilian development aid that remains off-budget, at the sector level there is are significant variations in the percent of aid provided off-budget.

While the operating budget expenditure is almost 100%, the development budget expenditure is significantly lower. This has occurred historically, as there are large budget carry-over from previous years, that is added to the current year, combined with ambitious budget planning in the current year, and a government line ministry constraint in terms of implementation capacity. There has been some improvement though for MOE and MOHE development budget expenditure in 1393 was 51% and approximately 40% respectively.

Aid effectiveness will improve as more aid is moved on budget. Further to achieve the full impact of this change there will need to be coordinated improvements in the government absorptive capacity. In terms of the recurrent and development ODA on-budget, the budget disbursement rates have improved from 58% to 67% over the period 2012 to 2014, in part influenced by the increased allocation of funds for the operating budget.

Donor Assistance Database. The MOF managed donor assistance database (DAD) is the official source of information about ODA provided to Afghanistan. As noted in the latest report, MOF implemented new procedures in 2014, and there has been an improvement in donor reporting. MOF indicate that 97% of ODA is now registered on the DAD system. In 2013 the figure was 58%. While DAD disbursements registered by donor totaled \$US12.99 billion over this period (97% of ODA), when donors allocated this disbursement by sector only \$US11.65 billion was registered (82% of ODA). Given this gap, with donors only able to allocate 82% of the ODA to ministries, the dataset is incomplete. This is important, particularly in relation to off-budget ODA, and the allocation and disbursement at the ministry level. For this reason, when using the DAD ODA disbursement figures for education ministries the figures are likely to be an under estimate, and alternate cross checking will be required. The MOF is planning further revisions in Quarter 1, 2016 to correct any inconsistencies in commitment amounts that have occurred.

In the education sector there has been limited progress in getting the ODA on-budget. For this reason, and given the under reporting particularly of off-budget support to education, the figures presented are likely to be lower than actual, with the number used to identify the scale and trend.

The DAD total ODA support to MOE and MOHE is indicated as accounting for 9.8% of ODA over the period 2012-2014⁹⁴. This is outlined in Table 3.2, the DAD estimate is that for MOE \$US784.7 million was expended off-budget in the period 2012-2014, and this accounted for over 75% of total MOE ODA expenditures. On-budget disbursements were \$US223.3 million. These figures need to be carefully reviewed as development budget expenditures for MOE in this period, refer Table 3.3, totalled \$US280.9 million. On the assumption that all development budget expenditure is donor

⁹⁴ MOF Development Cooperation Report, 2012-2014.

funded, the on-budget number is 25% higher. The same could apply to the off-budget donor support, given the under reporting.

In summary, MOE expenditure was \$US1.745 billion over 2012-2014, and this included the development expenditure of \$US280 million, adding the off-budget development expenditure of \$US780 million (approximately 75% of donor support), the total MOE expenditure was of the order of \$US2.5 billion, with approximately \$US1.1 billion or 43% funded by donors. Of the donor support only 25% was on-budget. The possibility is that donor funding could be higher in terms of non-reported off-budget development support, and the extent of any donor on budget support to the operating budget that was expended in MOE.

The DAD estimate is that for MOHE \$US118.5 million was expended off budget which accounted for over 90% of total ODA expenditure for this period. On-budget disbursements were \$US13.2 million. These figures need to be carefully reviewed as development budget expenditures for MOHE in this period, refer Table 3.3, totalled \$US73.1 million. On the assumption that all development budget expenditure is donor funded, the on-budget number is significantly higher, indicating a major donor data recording gap. The same could apply to the off-budget donor support, given the under reporting.

In summary, MOHE expenditure was \$US241 million over 2012-2014, and this included the development expenditure of \$US73 million, adding the reported off-budget development expenditure of \$US118.5 million, the total MOE expenditure was of the order of \$US359.5 million, with approximately \$US192 million or 53% funded by donors. Of the donor support approximately 35% was on-budget. The possibility is that donor funding could be higher in terms of non-reported off-budget development support, and the extent of any donor on budget support to the operating budget that was expended in MOHE.

With such low levels of on-budget ODA funding in MOE and MOHE, aid effectiveness and prioritization in the education sector is adversely affected, and this shortfall in achieving at least the Tokyo target of 50% on-budget needs to be resolved.

Table 3.2: ODA Disbursement as per the Donor Assistance Database, for period 2012-2014

	On-Budget (\$million)	Off-Budget (\$million)	Total Expenditure (\$million)	ODA (% of total ODA disbursement)
MOE	223.59	784.74	1008.33	8.7
MOHE	13.24	118.48	131.72	1.1

Source: MOF Aid Management Directorate, Development Cooperation Report, 2012-2014

Table 3.3: MOE and MOHE Expenditures and DAD On-Budget ODA, 2012-2014

\$US millions	2012	2013	2014	Total 2012-2014
MOE				
Development Expenditure	54.8	103.5	122.9	280.9
Total Expenditure	446.7	630.5	666.2	1743.4
DAD ODA Expenditure (on budget)				223.6
MOHE				

Development Expenditure	22.1	27.5	23.5	73.1
Total Expenditure	65.0	84.4	91.5	241
DAD ODA Expenditure (on budget)				13.24

Source: MOF Aid Management Directorate, Development Cooperation Report, 2012-2014, MOF Fiscal Bulletins

The education sector DAD for MOE and MOHE in 2014⁹⁵ indicates development partner commitments of \$US131.6 million and \$US 27.1 million respectively. The DAD disbursements of \$US169.8 million and \$US19.3 million respectively. The disbursement total for 2014 of approximately \$190 million was lower than in the previous year. The MOF on-budget disbursements for MOE and MOHE were \$US146.5 million in 2014, which suggests the DAD total ODA for both on and off-budget disbursements is likely to be an underestimate. As per the DAD, key development partners supporting MOE off-budget in 2014 are: Aga Khan Development Network, Australia, Canada, Czech republic, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Swiss Aid, Turkey, United Nations, and USA. In MOHE, the key development partners providing off-budget support are: France, Germany, Japan, Turkey and USA.

SECTION 2: PUBLIC EDUCATION RECURRENT UNIT COSTS

2.1 Macro Estimation of Public Recurrent Expenditure per Pupil

The unit costs per pupil (recurrent expenditure per student) is estimated for the different education levels. Given the data available on each of the programs and the lack of disaggregated financial data by sub-program under the curriculum development and teacher education, and the literacy program, it is not possible to provide realistic estimates on the costs of teacher training colleges per student or the costs of in-service teacher courses, or for literacy schools and literacy courses. The estimates made per program are only based on teacher training college student and literacy school student numbers and as such do not provide a meaningful figure. MOE data is required to enable the detailed analysis of costs and expenditures on these programs.

The unit costs are provided in Table 3.4 below for general education, TVET and higher education, and outline the expenditure levels per student across the different levels of education, the % of GDP per capita, and detail the comparison from 1390 to 1393. The scale and trend provide very useful information on cost allocation and expenditure. A more detailed version of the Tables is provided in Annex Tables 3.5, 3.6 and 3.7.

⁹⁵ MOF, Aid Management Directorate, DAD for Education Ministries (MOE, MOHE), December 2015

Table 3.4: Per Student Unit Costs for General Education, TVET and Higher Education (1390 and 1393)

	1390	1393
General and Islamic Education Program		
Number of Students ('000s)	7520	9068
Unit Cost/ student (Afs/ student)	2575.1	2967.4
Unit Cost/ student (including education management cost for each MOE program)	2740.9	3115.2
% of GDP per Capita	9.3%	8.3%
TVET Program		
Number of Students ('000s)	41.08	80.83
Unit Cost/ student (Afs/ student)	18656.3	15102.1
Unit Cost/ student (including education management cost for each MOE program)	18849.0	15854.6
% of GDP per Capita	63.7%	42.3%
MOHE		
Number of Students ('000s)	77.34	170.5
Unit Cost/ student (Afs/ student)	27394.6	22872.7
% of GDP per Capita	92.5%	61.0%

Source: MOE AFMIS, EMIS, MOF Budget papers, MOHE NHESP.

- 1) Sector wide expenditure - is the education management expenditure pro-rated based on program expenditure share
- 2) For MOHE further disaggregated data is required, and in terms of salaries
- 3) MOE disaggregated data for literacy and curriculum and teacher education programs required.

With general education there was a 20% increase in student numbers from 1390 to 1393, and recurrent expenditure per student increased approximately 15% from 2741 to 3115 Afs, and declined as a % of GDP per capita from 9.3% to 8.3%. For TVET, student numbers increased nearly 100%, from 41,080 to 80,830 over the period, recurrent expenditure per student declined approximately 16% from 18849 to 15855 Afs, and declined as a % of GDP per capita from 63.7% to 42.3%. With higher education, student numbers increased by 144% from 77,340 to 170,500 over the period, and recurrent expenditure per student declined approximately 16% from 27,395 to 22873 Afs, and declined as a % of GDP per capita from 92.5% to 61%.

For the different levels of education, the period (1390 to 1393) is characterized by expansion at all levels, though particularly in the TVET and higher education sub-sectors, that responded to the

increased student numbers. While recurrent budgets and expenditure increased, except for general education it did not keep pace with the increase in student number and the unit cost per student declined. Whether this reduced unit recurrent cost per student reflects economies of scale and efficiency gains or a potential decline in quality is to be determined. The evidence indicates rising PTRs and declining expenditure for non-salary costs including O&M, are potential risks to both quality and delivery sustainability.

A comparative cost for the different levels of education is provided, by using the % of GDP per capita for general education as the base, and comparing it with the TVET and higher education % of GDP per capita. The trend (as a multiple of general education % GDP per capita) indicates that the multiple in 1393 for TVET is 5.1 and higher education is 7.3. A similar trend applied in 1390 but at higher multiples of the general education % GDP per capita, with TVET at 6.9 and higher education at 10.

2.2 Breakdown of Public Recurrent Unit Costs

The breakdown of recurrent costs per pupil for general education, TVET and higher education in 1393 (2014) as detailed below in Table 3.5 (and in Annex Table 3.8), reinforce the trends indicated in the earlier sections. For general education, the unit cost per pupil is dominated by teacher and non teacher salary costs (accounting for approx. 94% of the total school unit recurrent cost per pupil, leaving only 6% for operational costs (materials, operations and maintenance), and the sector wide cost for education management adds another 5% to the total cost, resulting in a total recurrent cost per pupil of 3115 Afs.

For TVET unit cost per pupil, the teacher and non teacher salary costs is approx. 75% of the total school unit recurrent cost per pupil, with the operating cost of 25% which would have to cover the student costs including meals, and operational costs (materials, operations and maintenance), and the sector wide cost for education management adds another 5% to the total cost, resulting in a total recurrent cost per pupil of 15855 Afs. With TVET the unit teacher salary base is higher than for general education. Further analysis is required on the breakup of the goods and services expenditure category to examine in detail the amount incurred for student living costs.

For higher education unit cost per pupil, the teacher and non teacher salary costs is approx. 65% of the total school unit recurrent cost per pupil, with the operating cost of 35% which would have to cover the student costs (dormitories and meals), and operational costs (materials, operations and maintenance) resulting in a total recurrent cost per pupil of 22875 Afs. With higher education the academic unit salary base is higher than for general education and TVET. Further disaggregation and analysis is required on the staffing breakup between teaching and non teaching, and of the goods and services expenditure category to examine in detail the amount incurred for student living costs, and for the other operating and maintenance costs.

Overall the public recurrent expenditure per pupil for each of the three sub-sectors in 1393 indicates the significant cost increase involved per student as move from general education (primary and secondary), to TVET and higher education. The unit costs are dominated by salaries (teacher/ non teacher) and living costs provided by public TVET and higher education institutions that account for the major expenditure under non-salary operational costs.

Other MOE studies⁹⁶, including a recent paper by B. Noori (June 2015)⁹⁷ have demonstrated the significant variation in recurrent expenditure per pupil across the provinces for 1391 to 1393,

⁹⁶ Education Joint Sector Review Report (1391), MOE National Education Strategic Plan, 2015-2020 (Draft) July 2014, Afghanistan National Education for All Report, 2015

⁹⁷ B.Noori, Afghanistan Education Expenditure Analysis from an Equity Perspective, June 2015

reflecting significant disparities in MOE human and financial resource allocation. The recurrent expenditures per pupil ranging in the lowest province from 33% below the national average, to 67% above in the province with the highest recurrent expenditure per pupil. This variation reflecting the financial effects of having fewer teachers, and less qualified teachers, with classrooms having higher pupil teacher ratios, and fewer resources being allocated for operations and maintenance. The average salary and non-salary recurrent expenditures varying noticeably from rural and less secure provinces to urban and secure provinces. The MOE norm based allocation of operational expenses to the provinces is a complicating factor, constraining both the equitable allocation and use of these limited funds. Alternate methods and provincial output based criteria should be established to improve the equitable allocation of resources.

The pupil teacher ratio (PTR) in general education has risen from the low 40s in 1391 to 47 in 1393. The PTR is above the MOE target of 35, and as noted, there is a wide variation in the ratio across provinces, ranging from low 30s to mid 55. The MOHE PTR has also risen as estimated in Table 3.5 was 35 in 1393, and according to MOHE data it has risen from 29 in 1391⁹⁸.

While public education expenditure has increased, and student numbers have rapidly expanded, the recurrent expenditure per pupil has declined for both TVET and higher education, and for all three sub-sectors as a % of GDP per capita, over 1391 to 1393. The sub-sectors are operating with higher PTRs and very limited non-salary allocation expenditure. This suggests further improvements in financial and human resources are required. The challenge is the tight medium term fiscal projections for the economy and education sector, which will mean increases are likely to be limited. In this environment a review of all expenditure areas for possible efficiency improvements and improved prioritization should be undertaken. For such a review to be effective it will require the ministries to have detailed disaggregated physical and financial data, so all cost areas (salary (teaching, non teaching), administration staff (central and provincial) and non-salary costs and can be thoroughly assessed.

⁹⁸ MOHE, National Higher Education Strategic Plan, 2015-2020 (April 2015)

Table 3.5: Ministries of Education and Higher Education Breakdown of Public Recurrent Expenditure per Pupil, 1393 (2014)

Afs Millions	MOE		MOHE
	General & Islamic Education	TVET	Total
Expenditure (Afs million)			
Teaching Staff	20564	516	2518.7
Non teaching Staff	4661	403	0
Total	25225	919	2518.7
Staff Numbers			
Teaching Staff	192650	2375	4946
Non teaching Staff	43663	1854	
Number of Students (‘000s)	9068	80.8	170.5
Teaching Staff (Unit Cost per Pupil)	2268	6385	14772
Average Salary	106744	217305	509240
Pupil Teacher Ratio	47.1	34.0	34.5
Non-Teaching Staff (Unit Cost per Pupil)	514	4986	
Average Salary	106749	217368	
Pupil Teacher Ratio	207.7	43.6	
Operational Costs (Unit Cost per Pupil)	186	3731	8100
Total School Level (Unit Cost per Pupil)	2967	15102	22873
Sector Wide (Unit Cost)			
Salary Unit Cost	113	574	0
Administrative Unit Cost	35	178	0
Total Recurrent Unit Cost	3115	15855	22873

Source: MOE AFMIS, EMIS, MOF Budget papers, MOHE NHESP.

- 1) Sector wide expenditure - is the education management expenditure pro-rated based on program expenditure share
- 2) For MOHE further disaggregated data is required for salary and non-salary costs
- 3) MOE disaggregated data for literacy and curriculum and teacher education programs required.

2.3 Analysis of the Status and Remuneration of Teachers

In the current labor market a teaching qualification provides the graduate with better employment prospects, higher employment rates and income. As an employed teacher they will have a salaried job and be part of the 21% of the workforce classified in salaried public and private sector, or as an employer. As indicated in the CSO ALCS (2013/2014) 72% of those with a teaching qualification work in the public sector. Also, in terms of salaries, their salaries are competitive. Teachers as part of the public sector are in the income group classified as private and public sector, which has the highest mean and medium monthly earnings.

Teachers are employed either as a civil servant or on contract. In the MOE the civil servants (those listed as being part of the tashkeel) account for 76%, and contract staff the remaining 24%. In terms of average teacher salary there is little difference between civil servants and contract teachers. The number of teachers at the different payroll grades in MOE and MOHE is required for a more detailed analysis.

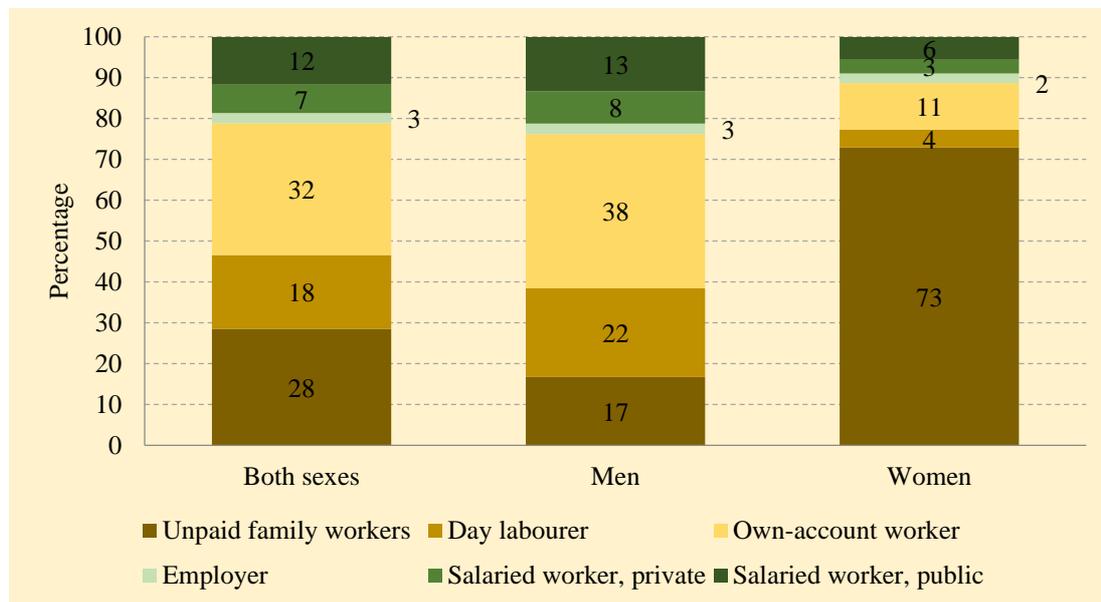
In response to increasing student numbers and an expansion in access to education, teacher numbers have risen over the period 1390 to 1393, though the numbers have not kept pace with the student number increase, and PTRs have risen.

On teacher qualifications, using MOE criteria only 58% of teachers are qualified. To address the skill shortfall MOE are undertaking extensive in-service teacher training. In addition there is a shortage of female teachers that is adversely affecting female student participation rates.

Employment Opportunities. In Afghanistan the labor market is challenging. Economic growth has slowed and this has reduced labor demand, in a workforce that has up to 400,000 new entrants (across unskilled to skilled participants) each year.

As outlined in the recent CSO ALCS (2013/2014) Report, of those employed only 21% of all employed persons are in salaried public and private employment, or as employers, with the remaining 79% of the workforce deemed to be in vulnerable or less secure employment. The employment breakup is provided in Figure 3.2. With the vulnerable employment 50% are laborers or own account workers, while 28% are unpaid family workers/ laborers. There are very marked gender differences, with 73% of women being unpaid family workers, compared to 17% of men.

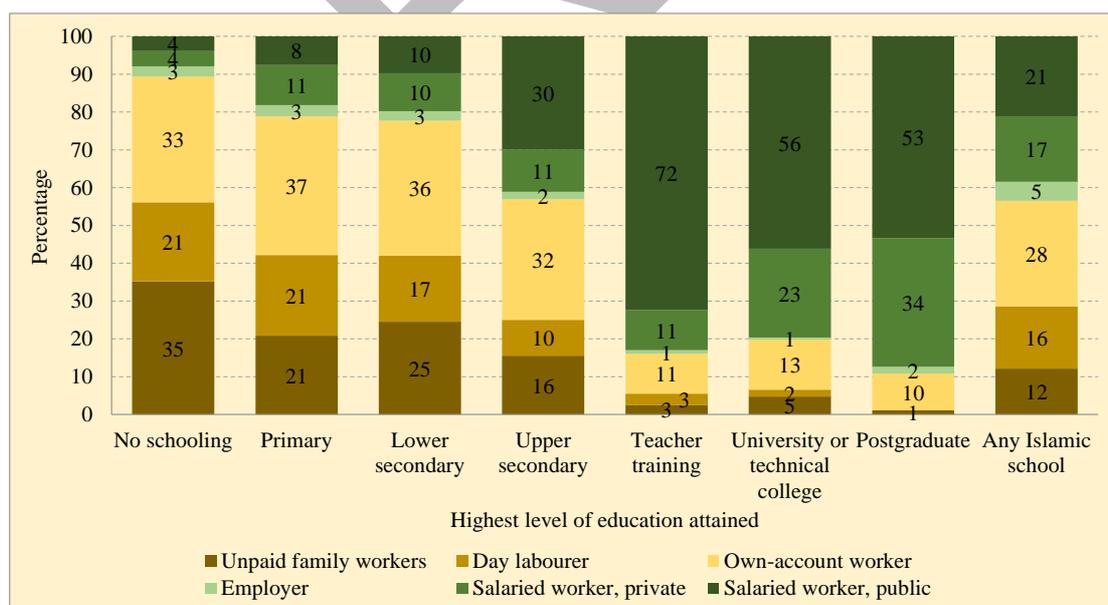
Figure 3.2: Employed and Unemployed persons, by sex and by job status (in percentages)



Source: CSO ALCS (2013/2014)

Prospects of getting salaried employment is heavily influenced by the level of education achieved. The ALCS finding is that education levels above secondary level have a major impact on job prospects as a salaried worker in the public or private sector. As indicated in the Figure 3.3, for individuals with a teaching qualification, 72% have jobs in the public sector. There are very distinct gender differences in job opportunities, with males accounting for two thirds of all jobs in the professional categories, and 88% of jobs in other skilled occupations.

Fig 3.3: Employed and underemployed persons, by highest level of education attained, and by job status (in percentages)

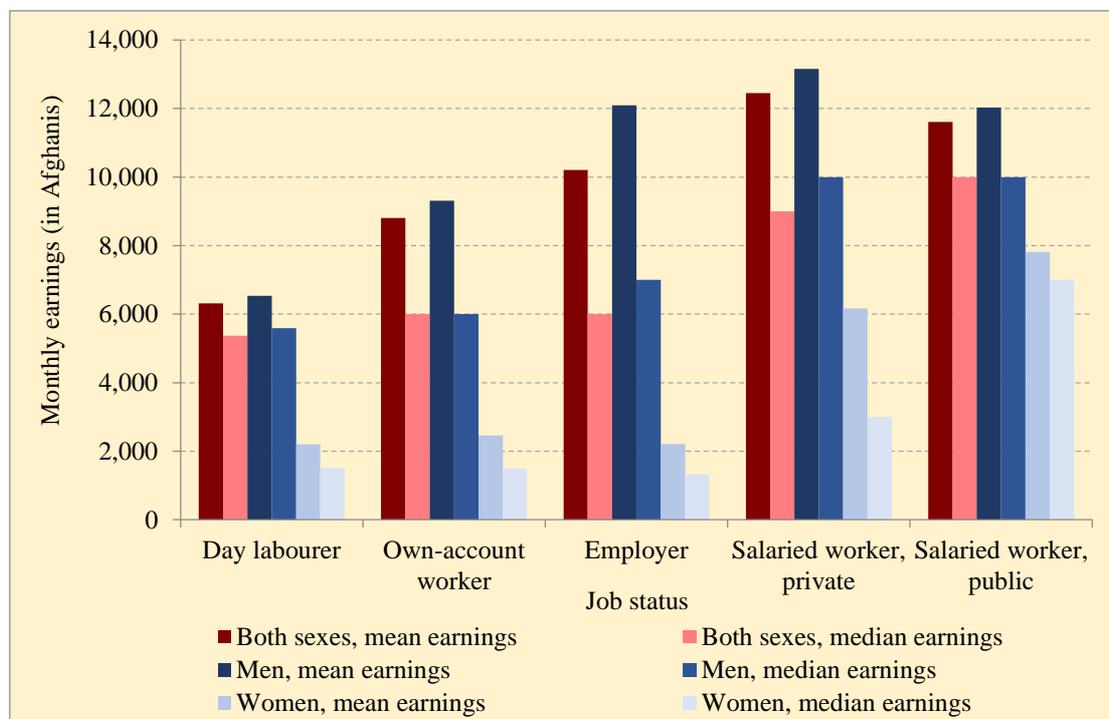


Source: CSO ALCS (2013-2014)

Salaries.

As detailed in the ALCS, salaried workers in the private and public sector have the highest mean and median monthly earnings (Figure 3.4). The data indicates that teacher salaries are competitive with the salaries paid in the public sector. Also, there are distinct gender differences in the salaries.

Figure 3.4: Mean and median monthly earnings, by job status, and by sex (in Afs)



SECTION 3: HOUSEHOLD CONTRIBUTIONS TO EDUCATION

3.1 Private Unit Costs by Education Level

Limited structured quantitative survey assessment and analysis has been undertaken on household private costs of education, and the impact of these costs on households (by income group), and their children’s access to and participation in education. Household direct private costs include: education fees, school uniforms, textbooks, pens, notebooks (school supplies), other stationary, transport costs and food related expenses.

Of national surveys undertaken, the CSO National Risk Vulnerability Assessment (NRVA) survey 2011/2012 had a stronger focus on household expenditures than the more recent Afghan Living Condition Survey (ALCS) 2013/2014. The NRVA survey asked five questions on household education expenses. While the NRVA Report 2011/2012 did not provide analysis on these direct expenses, the datasets are available, and will be used as part of this assessment to get an estimate of the households (HH) direct expenditure on education. This will be presented as per school attending child (mean and median values), and by income group, such as low/ medium/ high-income households. Given the questions asked, the data may not have been collected by the level of education, and therefore it appears it will not possible to allocate this to the children in a household undertaking different levels of education. On this basis the estimate will be per child, irrespective of education level. This analysis will be included in the revised ESA draft.

CHECK STATISTICAN REPLY

While a few published papers have provided some evidence of direct household education costs, the basis and the small sample size mean that the evidence is anecdotal.

The vast majority of households access the public education system. In addition, there is a small but growing private education sector, which covers both private general education (primary and secondary education), teachers training colleges and the higher education sector. With private education, and in particular with private higher education, there is a clear divide between students attending public and private higher institutions, and the associated direct household costs incurred.

With higher education sector, there has been a rapid expansion in the number of private higher education institutions. The number has increased from 2 in Kabul in 2006 to over 90 in 2014, with approximately half operating in provincial cities. Total student numbers were 130,000 in 2014, which is 42 percent of the total higher education student population. All but two of the private institutions are for profit. They are self financing, and their income is fee dependent, though in some cases there are other sources of funding. As outlined in the NHESP, while the average private institution charges fees of 5000 Afs per month or 60000 Afs per year, some institutions have fee charges of 290000 Afs per year. Demand is increasing and there is a large pipeline of new applications for further private institutions.

The direct household costs for students attending public higher education institutions/ universities their costs are significantly lower, as the institutions provide students with free tuition, dormitories and food. The dormitories and food, is a major cost to the MOHE budget, as outlined in section 2.2 and Table 3.5, it accounted for a large part of the operating cost per student of 8100 Afs in 2014. Given the increase in student numbers, MOHE has budgetary fiscal constraints. As outlined in the NHESP 2015-2020 (April 2015) draft, one of the recommendations is that MOHE consider a new system for dormitory accommodation and food, in which access to the dormitory accommodation would be means tested (based on family income) with graduated fees, and that distance from home be a further selection criteria. Should such a change be implemented, it would enable improved targeting of the limited financial resources available to those in lower income households, and result in an increase in household expenditure for medium and higher income households.

With the higher education sector, an estimate was prepared in 2010 which indicated that the direct household cost for a student living at home (and not in a university dormitory) was approx. \$US917 per year⁹⁹. The breakdown of this cost is: transportation \$US208, books \$US60, clothing \$US200, food costs \$US208, and stationary and other \$US200. For a student at a public university, the recent World Bank Higher Education Development Project (July 2015) indicated out of pocket expenses for a student at a public university of \$US 80-100. These estimate indicate that further work is required to provide a sound quantitative assessment of household private expenditure on education at all levels.

3.2 Education Cost-Sharing between the Government and Families

In terms of household direct education expenditures, and the impact of these costs on the child's school attendance, recent survey work has indicated the key impact of poverty rates, the opportunity cost of education to the household in terms of foregone income, and the associated need for child labor as key factors in non-attendance.

The CSO ALCS Report, based on the survey undertaken in 2013-2014, collected information on the population (in age range 6 to 24 years) who had attended school, but were no longer in the

⁹⁹ MOHE, National Higher Education Strategic Plan, 2015-2020

education system, and on why they had dropped out. While non-attendance in education may reflect a combination of economic, cultural, security, health and distance factors, in the survey it was found that economic considerations were an important factor, particularly for males. It was the main reason for 15 percent of primary school age children (27% for males, 5% for females). The percentages were very similar for both urban and rural non-attendance. The survey finding indicated that from the mentioned economic reasons, it was the need for the child to work, that is the opportunity cost of the income forgone from school participation, that was more important than the direct costs of education. This applied in particular to the males. With the females, cultural considerations were the dominant reason given for non-participation. For secondary level, economic considerations were the reason for 51% of male non-attendance and for 7% of female, with an overall average of 26%.

The ALCS 2013-2014 analysis indicated that approximately 39% of the population were living below the national poverty line. The level had risen since the previous 2011-2012 survey, due to the impact of the slow down in economic growth on labor market demand.

In terms of child labor, the ALCS survey results indicated that in households where none of the children (age 7-12 years) attended school, that the poverty rate was almost 20 percent higher than households where all children attended school, poverty rates of 53 and 35 % respectively. While access and availability of schools is a key factor in determining attendance, the survey finding does indicate that children in poor/ low income households are at a relative disadvantage in terms of attending schools. This finding is re-enforced with the relatively high child labor rates.

The survey findings on child labor, show the dependency of poor households on child labor to generate income. In 2013-2014, the ALCS survey indicated that 2.7 million children between ages of 5 and 17 years (or 27% of the total population) were in child labor. Approximately 46 % of these children were between 5 and 11 years of age. Males accounted for 65 % of the child laborers. Poverty rates were found to be higher in households where one child was engaged in child labor, and the rate increased as more children were involved in child labor activities. For poor/ low income households the opportunity cost of attending school, remains a critical factor for non-participation.

3.3 Breakdown of Average Private Unit Costs by Spending Item and Level

Currently there is a lack of survey data to provide a breakup of unit costs by spending item and education level. A structured household survey is required across the education sector to provide a sound quantitative base for analysis of private unit costs.

SECTION 4: THE COST OF SCHOOL INFRASTRUCTURE

In Afghanistan the school population and resulting school infrastructure requirements have increased rapidly since 2002. While the government, MOE, MOHE and development partners have responded with large investments undertaken in school infrastructure, there are still major shortfalls in the provision of schools, which have adequate buildings and facilities to provide a sound learning environment.

For example, with MOE the total number of schools has increased from approximately 6,000 in 2002 to over 15,000 in 2012. For MOHE the number of public institutions has increased from 6 in 2001 to 34 in 2014. In 2012, of MOE general education schools, only approximately 50% were defined as having usable buildings. A significant number of the schools were classified as having less than adequate basic facilities, such as sanitation and water facilities, and were lacking a secure school boundary wall.

Given the expanding population, and the requirement for new schools with supporting facilities, and the need to invest and improve the existing school infrastructure there is a large capital investment required over the medium to long term. The estimates of the investment required¹⁰⁰ greatly exceed government and development partner current and planned future investment levels. The identified fiscal constraints emphasize the critical importance of achieving value for money in school construction design, in contract tendering and award, and in contract construction supervision.

For the MOHE, infrastructure investment for improvement and expansion is one of its highest priorities given the increased demands for classrooms, laboratories, libraries, offices, and dormitories that is required with the large increase in student numbers and faculty staff. The NHESP (April 2015) indicates that the development budget is less than adequate to meet infrastructure requirements, and the operating budget is insufficient to cover basic materials, equipment, and general operating and maintenance costs.

Studies undertaken examining school construction (MOE, Comparative Review of School Construction & Educational Infrastructure, 1389 (2010)) demonstrated that there was significant variability in: construction costs across the different implementing partners (MOE, development partners, provincial reconstruction teams, NGOs, community); construction quality and from the use of different contracting partners. In terms of achieving infrastructure quality and value for money, influential factors were community participation that had a significant impact on ownership and cost, planning and design, especially where it included disaster risk reduction, and consistent quality construction supervision (from MOE and the provincial education offices). The review noted the capacity constraints, and coordination issues in MOE infrastructure services that required resolution. Also, the issues related to getting monitoring and cost control systems in place for those school construction activities being undertaken off-budget. The unit construction cost ranges, and those from a later study are outlined in Table 3.6.

School construction costs. For costs per classroom, the MOE has an indicative unit cost per fully equipped classroom of \$US25,000 in 2015, which is used as a basis for the construction program. This cost base needs to be used carefully, given the variability in cost that occurs, with use of materials (local or imported) for small or with larger city schools (using cement and steel), whether the school cost includes the supporting facilities (sanitation and water), the cost of specialized facilities (ie. laboratories) and the use of local (including community) or international contractors.

The standardization of school designs and materials, and use of pre-fabricated components would provide a stronger standard cost base. In addition, MOE in designing the schools should include technical features that address disaster risks. In design specifications and defining materials to be used, the estimation of the school infrastructure effective lifespan needs to be undertaken for the different options. The lowest capital cost and possibly the shortest life span, on an annualized basis may result in a higher outlay. Currently, in the absence of school building expected lifespans, it is not possible to determine the annualized cost of a classroom. Further work needs to be undertaken by the Infrastructure Services Department of MOE.

In terms of the school and classroom maintenance, as noted earlier the recurrent budget and expenditure on operations and maintenance is low, and inadequate to maintain the infrastructure. In 2014 for MOE the expenditure was 597 million Afs or approximately 70 Afs per student. The MOE norms for the operations and maintenance (O&M) costs in 2015 are provided in the Table 3.7

¹⁰⁰ MOE, National Education Strategic Plan (2015-2020) Draft (June 2014); MOHE National Higher Education Strategic Plan (2015-2020), (April 215); A. S. Raouf paper, School Facilities in Afghanistan Current Gaps and Challenges for the Future, 2013.

below. It indicates that for a school (with building infrastructure), and a classroom (with 40 students) that the operations and maintenance allocation (65 and 60 Afs respectively per student) would be 5,400 Afs per year. That is approx. \$US86 per classroom per year, for a building that is currently estimated to cost \$US25,000 to build. This indicates that the budget allocation and expenditure is totally inadequate to maintain the infrastructure. Using a conservative O&M of 3% to 5% per year, the cost allocation would be \$US750 to \$1,250 respectively per classroom. For schools lacking school building infrastructure, the MOE allocation for O&M is 75 Afs per student, so for a class of 40 students, a total of 3000 Afs per year (\$US45 per year).

To get an indicative estimate of O&M costs for the MOE, using a conservative base of \$20 per student (ie class size of 40, 50% in buildings (5% O&M per year ie \$30 per student, and the 50% of students not in buildings O&M of \$10 per year per student) would indicate a requirement of approximately \$US170 million. This figure is of similar order, to the World Bank estimate for the total education sector in 2010/2011, which indicated an operations and maintenance funding requirement of approximately \$US170 million, with a forecast given the infrastructure investment, that this cost was expected to increase to \$US 235 million in 2014¹⁰¹.

The government is aware of the large unfunded O&M cost, and since 1392 it has implemented reforms in nine ministries, including MOE and MOHE, to improve O&M. While ODA funds are also supporting O&M, and an ARTF O&M facility, the large increase in budget funds is yet to eventuate. Given the large expenditure and budget increase required to implement a sustainable O&M policy and practice in the education ministries, there will need to be an overall investment in existing government systems, with major institutional capacity enhancement to cost effectively manage O&M on the required scale.

¹⁰¹ World Bank, Afghanistan in Transition, 2013

Table 3.6: MOE Cost of a School Module

Unit cost of classroom	US\$
MOE (1394) classroom (all equipment)	25000
A.S. Raouf paper "School Facilities in AFG current gaps and challenges for the future", 1392 (2013)	
Based on a school module (of 7 classrooms), with costs:	
-total cost for classroom	19448
-total cost for laboratory facilities (secondary school)	115763
-total cost for surrounding wall	61262
-total cost for toilet building	19448
-total cost of water facilities	4865
MOE Comparative Review of School Construction and Educational Infrastructure, 1389 (2010)	
Wide cost variations, with range:	
-very high	above 20000
-high	15000-20000
-medium	10000-15000
-low (some involved community contributions)	0-10000

NB: MOE Comparative Review noted the variation in what was included in the school contract packages (type of materials (local or imported), with or without supporting facilities) influenced the cost base.

Table 3.7 MOE School Operations and Maintenance Costs

	Per Student per Year (Afs)		
	Operations	Maintenance	Total O&M
Schools with building infrastructure	65	60	125
Schools without building infrastructure	50	25	75
Per classroom (with 40 students)			
Schools with building infrastructure	2600	2400	5000
Schools without building infrastructure	2000	1000	3000

CHAPTER 4

QUALITY, SYSTEM CAPACITY AND MANAGEMENT

Introduction

The quality of the education system in Afghanistan measured by the proportion of students who are able to perform the grade specific tasks expected at their level and who reach to the final stage of the school cycle and pass the exams is poor. There is now a growing realization among the new political leadership in Afghanistan that quality of education has not received as much attention as the quantitative dimensions of education. Among the factors affecting quality identified by the new minister are: ...poor school facilities; inappropriate curriculum; inadequate teacher qualifications, inadequate and insufficient textbooks and learning materials, inefficient provision and untimely distribution of textbooks.¹⁰² Therefore, there will be a renewed focus on quality.

The survival rate to the last grade of primary (grade 6) was 58 % (60 % boys, 54 % girls) in 2013 suggesting that 4 out of 10 pupils who enrol in grade 1 do not reach grade 6 of primary education.¹⁰³

Learning achievement is a cause of concern. Results from a Learning Assessment study of grade 6 students¹⁰⁴ indicate that:

- 10% of students cannot **read** simple words,
- 14% of students cannot name simple shapes in **maths**
- 31% of students cannot **write** a simple word

SECTION 1: ASSESSMENT OF STUDENT LEARNING

4.1.1 National Examinations and Admissions Tests

Afghanistan does not yet have standardized performance tests or national examinations at primary or secondary school, which makes assessing learning outcomes a challenge.

Afghanistan is in the process of reviewing its examination system, with a Directorate for *Standards, Research and Evaluation* being established within the Curriculum Development Department (Afghanistan Ministry of Education, 2010). According to *Afghanistan's National Education Strategic Plan (1389-1393/2010-2014)* (Afghanistan Ministry of Education, 2010), examinations are administered twice annually to Grade 4 students and above. These examinations are not standardised and are created and marked by classroom teachers. There is no central examinations authority. Currently, the highest level is the PED.

Examinations are typically used to certify and select students, and have traditionally served gate-keeping functions, for example, limiting entry to a course or institution, or determining learning paths such as 'academic' or 'vocational'. Therefore, examinations often have high stakes for students as there are consequences for high and low achievement. The examinations are high

¹⁰² Interview with H.E. Minister of Education Dr Assadullah Hanif Balkhi, 2.9.2015

¹⁰³ (EFA 2015, MOE)

¹⁰⁴ Monitoring Trends in Educational Growth (MTEG) Afghanistan: Strengthening Afghanistan's Learning Assessment System, ACER
Australian Council for Educational Research, 2013

stakes for students, as their percentage scores determine whether or not they can move ahead to the next grade.

Examinations typically occur annually and all students within a particular grade participate. They usually assess students' knowledge and skills in relation to different subject areas in the curriculum. All students receive the same test which is administered under the same test conditions, and, therefore, results are often compared between individual students and across schools.

4.1.2 National Learning Assessments

Little systematic and comprehensive information on students' learning achievement is available in Afghanistan. Despite data having been collected on school attendance and literacy levels in the population, little is known on the quality of educational outcomes. However, the current available evidence from various studies indicates poor learning outcomes. For instance, a study by Save the Children found that only 43% of a sample of children in grade 3 could read with comprehension. This poor performance is a concern in itself since reading with comprehension is an important skill that is required for the entire student learning process for all subjects. The study was not nation wide but was conducted in six provinces only. Another study, however, suggests a gradual improvement in learning achievement based on test results from 2009 and 2011 in Language and Maths at grades 3 and 6¹⁰⁵.

Basic Education for Afghanistan Consortium (BEACON) was a project meant to support community based holistic approaches to education in rural areas. The project reached 26647 students in 748 community based education (CBE) classes. It ran from 2012 to 2014. In 2013 a baseline test and in 2014 an endline test using EGRA and EGMA was administered to assess reading and numeracy skills. The results showed that the majority of students had developed the decoding and oral reading fluency skills that are foundational to basic literacy. The results also showed that 74% of students were reading with comprehension while 5-6 % had not acquired any oral reading fluency or comprehension. The EGMA findings showed that students had mastered the essential numeracy skills but struggled more with quantity discrimination and subtraction. The overall findings suggest that outcomes in initial literacy and numeracy skills can be continually improved through teaching techniques that promote reading and math competencies. Important in this respect is providing teachers with training in multi-level classrooms and supporting the few students who are lagging behind. It will also be important to continue gender-equal instruction in order to facilitate the same learning outcomes for boys and girls¹⁰⁶.

In 2013, a comprehensive learning assessment study, Monitoring Trends in Educational Growth (MTEG), was conducted by ACER, an Australian consultant for EQUIP, a large WB sponsored MOE programme.¹⁰⁷

The purpose of MTEG was to provide information to education policy makers on the quality of education outcomes in Afghanistan. In addition MTEG would inform educational practitioners by clearly demonstrating what students at Class 6 can and cannot do in an assessment situation. MTEG is just one component of a learning assessment system¹⁰⁸, the results of which were

¹⁰⁵ Mansory, A.: A Study of DT3 Program: Teaching quality and Students' Learning achievements, 2011

¹⁰⁶ Basic Education for Afghanistan Consortium (BEACON) – Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA), Afghanistan Endline Report December 2014

¹⁰⁷ (EFA 2015, MOE)

available in several reports in 2015. One of these reports presented the results of an assessment of reading, writing and mathematical literacy of Class 6 students in 13 provinces in Afghanistan in relation to the gender of students.

It is known that national sample-based monitoring studies are similar to international assessments in that they use standardised tests and rigorous sampling, administration and analysis procedures to measure students' proficiency levels. Similarly, they are designed to provide information to policy makers on trends over time, on contextual factors, which are related to achievement, and to investigate achievement amongst different groups (e.g., rural and urban). The difference is that national monitoring studies only provide information on one country rather than making comparisons between different countries.

In Afghanistan, little was known on the quality of educational outcomes, despite data having been collected on school attendance and literacy levels in the population. The 2013 MTEG assessment of Class 6 students in Afghanistan was intended to contribute to the discussion on gender disparity by reporting on the proficiency levels of girls and boys in the domains of mathematical, reading and writing literacy. The data provided information on background characteristics that may interact with school attendance and achievement, both of which are important indicators of gender parity. These background characteristics included attitudes to school, perceived support, socio-economic status, and location.

Assessment Results

The results of the assessment are reported on 'described proficiency scales'. For each subject, proficiency can be described from early stages of learning to sophisticated skills and understanding. Based on the results of the assessment, the proportion of the Class 6 population performing at each proficiency level is identified.

The results show that while there are small numbers of Class 6 students operating at the higher levels of proficiency in each of the domains of reading, writing and mathematical literacy, there are substantial proportions of the population who are not able to perform simple reading, writing and mathematical tasks.

In the area of mathematical literacy, the data show that 86% of students (proficiency levels 6-11 and above in Exhibit 4) in Class 6 are likely to be able to recognise common shape names, and use spatial reasoning as part of a counting strategy or to make comparisons involving mathematical properties of objects. A small percentage of Class 6 students – those at proficiency levels 10-11 and above – can understand and use a range of mathematical tools, language, and techniques to solve problems where relationships among problem elements are central. While the above results are encouraging, the data also show that students in proficiency levels 6 and below – more than one-third of students in Class 6 – cannot answer questions that require them to add two-digit numbers.

4.1.3 International Standardised Learning Assessments

International assessments use standardised tests and procedures to measure learning in multiple countries. The largest international assessments include: the Program for International Students Assessment (PISA); the Progress in International Reading Literacy Study (PIRLS) and the Trends in International Mathematics and Science Study (TIMSS).

We tried to compare the performance of Afghan students to their peers in neighbouring countries using International Standardised Learning Assessments

There is little known about the performance of Class 6 students studying in countries neighbouring Afghanistan. However, there are TIMSS results for grade 4 from the Islamic Republic of Iran, Azerbaijan and Kazakhstan that may be used for comparative purposes. TIMSS is a major international study of mathematics and science for Class 4. TIMSS reports that 64% of Class 4

students in Iran, 72% in Azerbaijan and 88% in Kazakhstan demonstrate the ability to add three-digit numbers (Mullis et al., 2012a, p. 90, 95). It would appear that Class 6 students in Afghanistan are performing at a lower or similar level compared to Class 4 students in those countries.

In the area of reading literacy, 90% of students (proficiency levels 6-11 and above in Exhibit 5) in Class 6 are likely to be able to recognise the meaning of single sentences on familiar topics; about 10% of students are able to identify the main message in short texts on familiar topics (proficiency levels 10-11 and above); and a small percentage of Class 6 students can explain the behaviour and emotions of characters in a narrative text (proficiency level 11 and above). Students in proficiency levels 8-11 and above – 55% of Class 6 students in Afghanistan – could answer questions that required them to retrieve directly stated information located at the beginning of a text.

Using PIRLS¹⁰⁹, some interesting comparisons can be drawn. In PIRLS, the skill of retrieving directly stated information at the beginning of a text was tested. 76% of Class 4 students in the Islamic Republic of Iran, and 82% of Class 4 students in Azerbaijan demonstrated this skill (Mullis et al., 2012b, p. 65, 68). It would appear that many Class 4 students in these countries are performing at or above the level of Class 6 students in Afghanistan. Nevertheless, it is promising that a large majority of students are able to demonstrate fundamental reading skills and that a significant, if small, proportion of the population is performing well on relatively difficult reading tasks.

For writing literacy, eight per cent of students are able to produce texts where ideas are elaborated to some extent, and are generally relevant to the task (proficiency level 10 and above in Exhibit 6). Forty-five per cent of Class 6 students are unable to demonstrate writing ability beyond producing a recognisable word to label an everyday object or correctly spelling single words prompted by a picture (proficiency levels 6 and below).

There are currently no large-scale international assessments of writing literacy. This means that, at the time of publication, the MTEG Class 6 results for writing cannot be compared with those of other countries.

4.1.4 Using Household Surveys and Literacy Levels as a Proxy Measure of Quality

The literacy rate in Afghanistan is one of the lowest in the world. In 2005 it stood at 31%, 20% for women, but nine years later it had increased to 52%.

The 2015 ALCS offered a comprehensive account of the literacy situation in Afghanistan¹¹⁰.

Literacy generally denotes the ability to read and write and to use written words in everyday life. Literacy is one of the intended outcomes of education, as well as a measure of a person's ability to function in society and his or her potential for further intellectual growth and contribution to economic and socio-cultural development of society. The complementary illiteracy indicates the extent of need for policies and efforts in organizing adult literacy programmes and quality primary education. According to ALCS 2013-14, this represents 66 percent of the total population 15 and older.

The adult literacy rate – referring to the population aged 15 and over – indicates the accumulated achievement of primary education and literacy programmes in providing basic literacy skills to the population. The table below indicates very low adult literacy rates for Afghanistan, with a 34 percent overall literacy rate in the population over 15 years. The complementary illiteracy rate of 66

¹⁰⁹ PIRLS is an international examination of reading skills in grade 4. PIRLS means “Progress in International Reading Literacy Study” and is an international comparison of student performance in reading.

¹¹⁰ ALCS 2015, CSO

percent implies that there are around 9.7 million illiterate persons aged 15 and older in Afghanistan, 5.9 million women and 3.8 million men.

The adult literacy rate presented in the table below also shows pronounced differences by residence: in the urban population the adult literacy rate is almost twice as high as that in the rural population (54 against 29 percent), whereas among the Kuchi adult literacy is as low as 8 percent.

Adult literacy rate, by residence, and by sex (in percentages); Gender equity indicators, by residence

Sex and gender equity indicators	Residence			Total
	Urban	Rural	Kuchi	
a. Sex				
Male	68.2	44.4	13.4	49.1
Female	39.1	12.5	1.1	19.0
Both sexes	53.6	28.7	7.5	34.3
b. Gender equity indicators				
Absolute difference	29.2	32.0	12.3	30.1
Gender parity index	0.57	0.28	0.08	0.39

Only 19 percent of women 15 years and over is able to read and write, compared to 49 percent for men. The corresponding figure for rural women is a low 12 percent. The table above shows how these figures result in poor gender equity indicators, with large absolute differences between male and female literacy and low female-to-male literacy ratios (gender parity indices).

Although the absolute gender differences between urban and rural populations are of similar magnitude (close to 30 percentage points), the performance in terms of the ratio indicator is twice as high in urban areas (0.56) as in rural areas (0.28), indicating the disadvantaged position of rural women.

The youth literacy rate – the rate calculated for the sub-population aged 15-24 – is one of the MDG indicators to measure progress towards achieving universal primary education (MDG goal 2). It reflects the outcomes of primary education over roughly the previous 10 years. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. The table below again indicates large differences in youth literacy rates by residence and sex, and especially the difficulty to service the Kuchi and the female rural population. The overall youth literacy rate of 52 percent would imply that Afghanistan is one of the countries with the lowest literacy in the world.

Youth literacy rate, by residence, and by sex (in percentages); Gender equity indicators, by residence

Sex and gender equity indicators	Residence			Total
	Urban	Rural	Kuchi	
a. Sex				
Male	83.4	62.3	20.6	66.3
Female	65.1	26.5	2.6	36.7
Both sexes	74.3	44.6	12.5	51.7
b. Gender equity indicators				
Absolute difference	18.4	35.7	18.0	29.7
Gender parity index	0.78	0.43	0.13	0.55

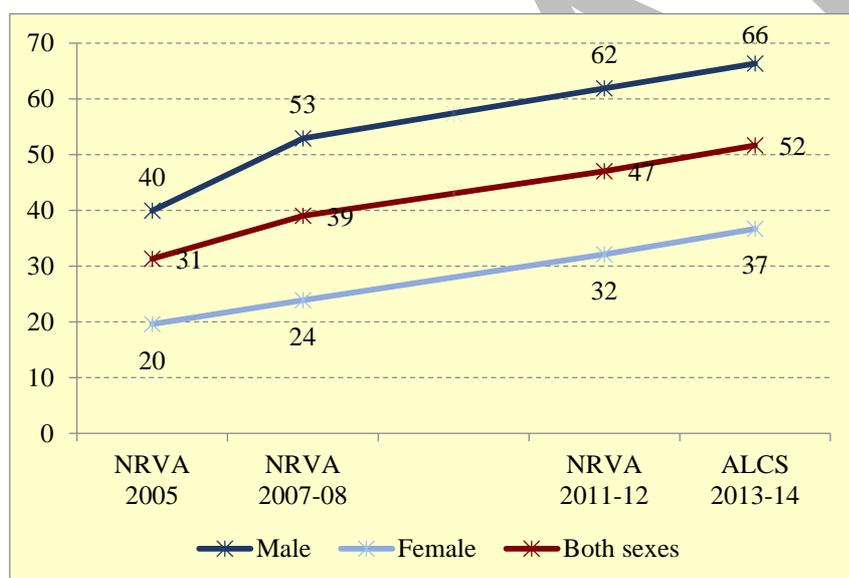
The literacy gender parity index is the ratio of the female literacy rate to the male literacy rate for the age group 15-24. The indicator is applied in Afghanistan as an ANDS indicator to measure

progress towards gender equity in education and is also a key indicator of empowerment of women in society. At national level, ALCS 2013-14 found a figure of 0.55 for this indicator (see the table above), indicating that the share of female youth that is able to read and write is just over half that of male youth. The corresponding figures for urban and rural populations were, respectively, 0.78 and 0.43.

Despite large investments in the education system in the decade before the ALCS 2013-14, their conversion into increased literacy rates is a slow process. The adult literacy rate – referring to the population 15 years of age and older – has increased, from 26 percent in NRVA 2007-08 to 31 percent in NRVA 2011-12 (data not shown) and is now recorded at 34 percent (Table 9.5). The successive surveys observed an increase in the male adult literacy rate from 39 percent to 45 and to 49 percent, respectively, and in the female adult literacy rate from 12 percent to 17 and to 19 percent, respectively. These figures imply that the targets defined in the Education Strategic Plan 2010-2014 of the Ministry of Education for 1393 (2014) (MoE 2010) – 48 percent overall literacy, and 54 and 43 percent for males and females respectively – have not been achieved. Although the male literacy rate came close to the set target, the female rate fell short by more than half.

The youth literacy rates show modest, but constant improvement since the NRVA 2005 (Figure 9.10). This ANDS/MDG indicator showed a 65 percent increase in the rate between NRVA 2005 and ALCS 2013-14 for both sexes combined. However, the tempo of the increase is far too low to even come close to the ANDS target of 100 percent in 2020.

Youth literacy rate, by sex, and by survey year (in percentages)



The figure above presents the change in literacy levels on the basis of age-specific literacy rates. It indicates an improvement in educational performance in the period since 2001. Educational improvement is suggested by the increase of literacy rates in younger age groups at the left of the graph, an effect that is most clear for women. For all women aged 30 and over the literacy rate is 10 percent or below, indicating that during the years in which they were in their school age educational opportunities were very poor. The up-turn that can be observed for women in their late twenties reflects the new opportunities to enter the formal education system after the remove from

power of the Taliban regime in 2001.¹¹¹ The increase in literacy continues for each successively younger age up to age 15. At this peak, 48 percent of girls is able to read and write and 71 percent of boys is able to do so. Children of younger ages show somewhat lower literacy because of the effect of later school starters and using moving averages in the graph.

SECTION 2: ANALYSIS OF SYSTEM CAPACITY

Capacity is defined as the maximum level of output of goods and/or services that a given system can potentially produce over a set period of time. When analyzing capacity of the education system we are interested in its performance in terms of learning achievement and the numbers and proportion of successful graduates completing the full learning cycle, i.e. grade 12.

A proxy indicator for the education system output in Afghanistan is the adult literacy rate, which stands at 34% and the youth literacy rate, which stands at 52, one of the lowest in the world. The proportion of students, who make it to the last 12th grade of schooling, is 18%. The complementary values of these figures are indicative of the system waste: an adult illiteracy rate at 66%, youth illiteracy at 48% and overall school dropout of 82%.

4.2.1 Evaluation of the Conversion of Resources into Results by Schools

In order to analyse the correlation between education resources and results we tried to identify available EMIS data on education expenditure (per student or school,) and school performance (e.g. enrolment, learning achievement, pass rate) disaggregated by province or district. Unfortunately, such data were not available at the time of the sector analysis.

4.2.2 Analysis of the Factors Associated with Learning Outcomes

Age, location, sex, SES, teacher's' Qualifications, TLM, Curriculum, Language # DMTEG Afg –C6 (policy implications)

Is it possible to isolate the variables that contribute to learning outcomes and to estimate their relative contribution to learning? To the extent that this would be possible, we would have an instrument, which could help us making choices between alternative inputs in order to optimize benefits, in this case enrolment and learning outcomes. We have identified a number of variables and seek to establish their relative importance by means of various studies that have been undertaken. Factors that have been assessed are: age, distance to school, teacher qualification and teacher academic support, access to textbooks, parents' educational background and socio-economic status (SES).

Factors that have not been assessed are: the quality of the curriculum, the quality of textbooks, and the number of contact hours, school management. We assume that these factors are critical for learning outcomes and would like to suggest that future research into these areas be made a priority for MOE.

Early Childhood Education and Learning¹¹²

Progress in schooling is often associated with cognitive abilities acquired at a young age. Prior participation in early childhood education and learning programmes can play an important role in a child's future education, because they shape the attitudes towards learning and help children to develop basic social skills. Those children who have access to early childhood education and learning programmes are also more likely to go on to have access to primary schooling. However,

¹¹¹ The age location of the up-turn in the late 20s is due to the combined effect of girls entering education at an advanced age, the application of five-year moving averages in the graph and age misreporting.

¹¹² This section is largely based on AMICS 2012 pp.104-110

early childhood education attendance is very low in Afghanistan, with implications for successful transitions to primary school.

Within households, a majority of children have adults engaging in activities with them, and most households have play items in the home, conditions that help stimulate cognitive development and social interactions. However, access to books in the home is extremely low throughout the country. Children's access to books from an early age is a proven means of providing a solid foundation for literacy development and school learning later on.

It is well recognized that a period of rapid brain development occurs in the first three to four years of life, and the quality of home care is the major determinant of the child's development during this period. In this context, adult activities with children, the presence of books in the home for the child, and the conditions of care are important indicators of the quality of home care. Children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn.

The importance of parental and adult stimulation of the child for early learning

Activities that support early learning include the involvement of adults with children in the following activities: reading books or looking at picture books; telling stories; singing songs; taking children outside the home, compound or yard; playing with children; and spending time with children naming, counting, or drawing things.

For more than two-thirds (73%) of under-five children, an adult household member engaged in more than four activities that promote learning and school readiness during the three days preceding the survey. The average number of activities that adults engaged in with children was four. Fathers' involvement in one or more activities was 62%.

Interestingly, children living in households with middle level socio-economic status have the highest rate of support from the father for the child's learning, while children living in households with the wealthiest socio-economic status have the lowest rate of support from the father towards the child's learning. Variances were also found by the father's educational level, in that fathers with secondary education or higher participated in one or more activities with the child more often (73%) than did fathers with no education (59%).

Fathers engaged in activities with boys (63%) only slightly more than with girls (60%). Higher proportions of adults engaged in learning and school readiness activities with children in urban areas (80%) than in rural areas (72%). Strong differentials by region and socioeconomic status are also observed: adult engagement in activities with children was greatest in the Central Highlands region (81%) and lowest in the South East region (62%), while the proportion was 80% for children living in the wealthiest households, as opposed to those living in the poorest households (72%).

Exposure to books

Exposure to books during a child's early years not only provides the child with greater understanding of the nature and purpose of print literacy, but may also give the child opportunities to see others reading, such as older siblings doing school work. The presence of books in the household is important for later school performance and literacy development.

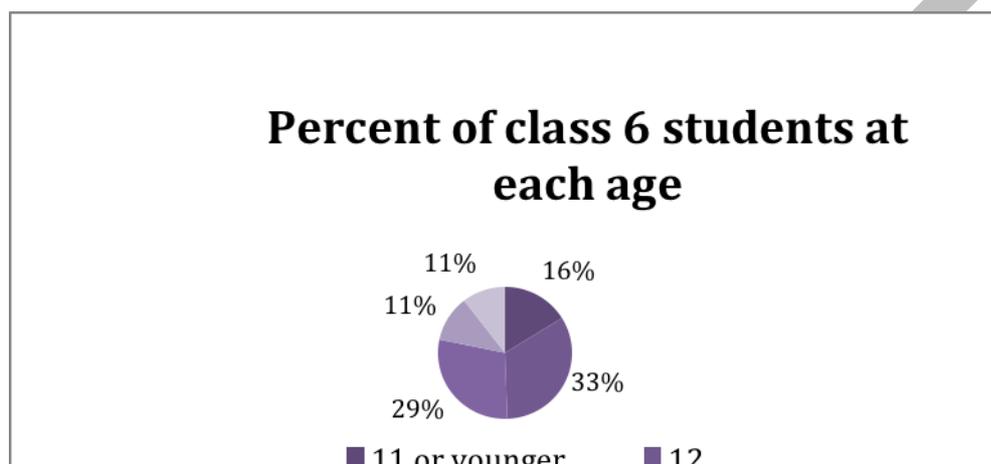
In Afghanistan, only 2% of children aged 0-59 months are living in households where at least three children's books are present (Table 9.3). The proportion of children with 10 or more books declines to almost 0%. While no gender variances are observed, urban children (5%) appear to have more access to children's books than children living in rural households (2%).

The presence of children's books is positively correlated with the child's age; in the homes of 3 of children aged 24-59 months, there are three or more children's books, while the figure is only slightly more than 0% for children aged 0-23 months. The presence of children's books is positively correlated with the mother's education level: 11% of children, whose mother has attained

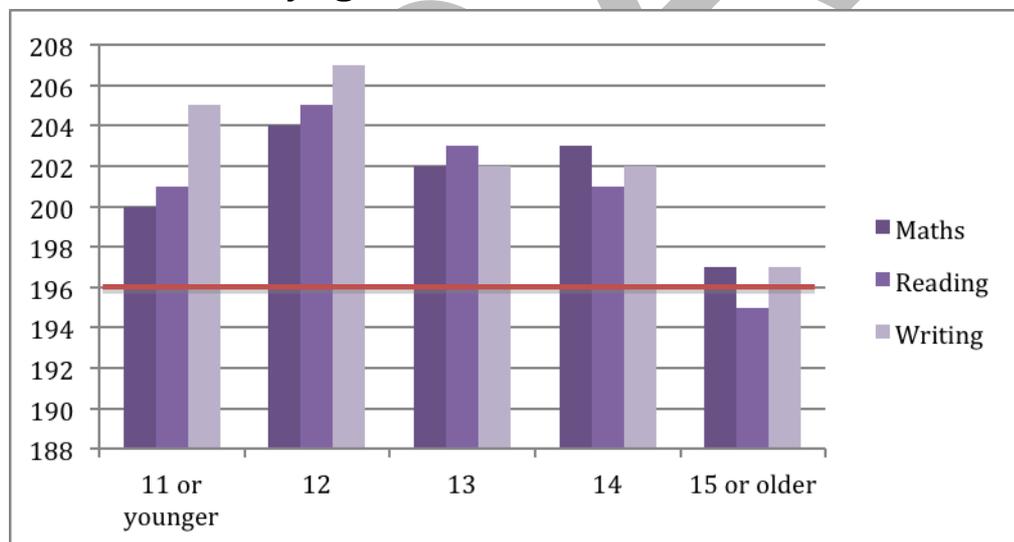
secondary education or higher have three or more children’s books, while the figure drops to 2% for children whose mothers have no education. There are notable variances found in the presence of children’s books by region and by household social-economic status.

Age is an important factor determining learning outcomes.

Students in grade 6 who are 15 years and older may be up to 6 months behind those students who start school on time.



Achievement by age



School facilities

The Learning Assessment Study conducted by ACER found a positive correlation between student performance and the availability of modern facilities at schools: Students who attend schools that have water, electricity or internet perform better.¹¹³

¹¹³ ACER DMTEGAfg c6 op cit

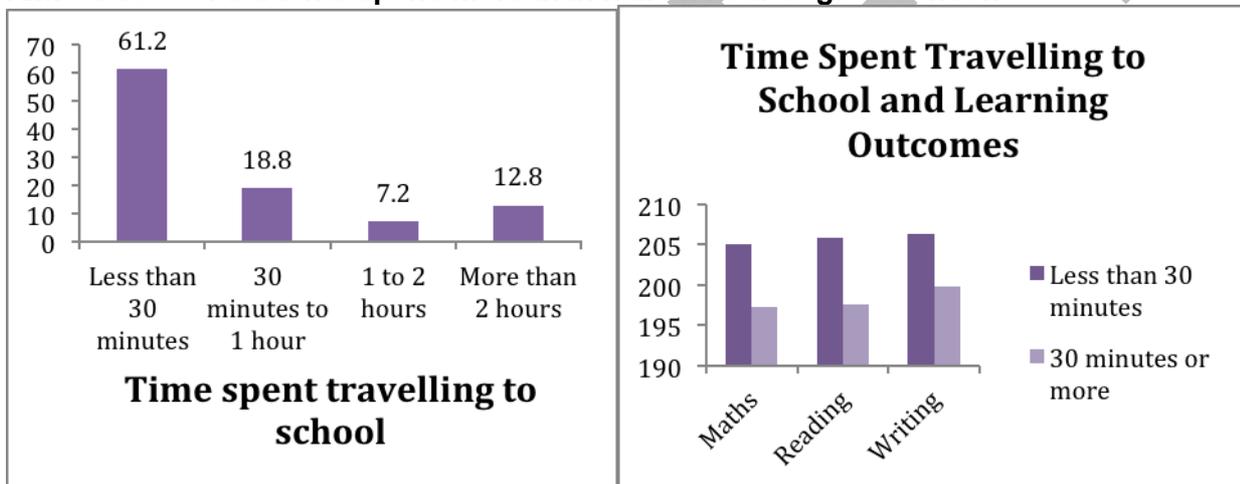
Distance matters – a lot:

Proximity significantly affects both boys’ and girls’ enrolment with average enrolment rates declining 16 percentage points for every additional mile children had to travel to school¹¹⁴. (Burde & Linden p 39). Beyond two miles enrolment dropped to about 30 percent – vs. 70 percent enrolment within a mile from home. The effect of proximity was particularly dramatic for girls, whose enrolment dropped a precipitous 19 percent with even a one-mile increase in distance between their home and school.

Hence, whereas enrolment rates were about equal for boys and girls with access to schools close to home, gender disparities quickly became pronounced with an increase in distance. At 1.5 miles the gender gap was already ap. 10 percentage points. Also, absenteeism increased with distance. It is not resistance to girls’ education or to the MOE which causes high drop out of girls; it is distance from home to school. Even in very conservative societies there appears to be strong support for girls’ education and, if no other options are available, even in cases where they are taught by locally recruited and trusted male teachers.

In addition, contrary to widespread beliefs, there is a strong demand for girls’ education well beyond the primary level.

Almost 40 % of students spend more than half an hour to go to school:



There is a strong correlation between enrolment, performance and distance to school. In the PACEA Report to Danida, Burde et al reports: “We know from previous research that for each mile (1.6 kilometres) that distance to school increases, girls’ enrolment drops by 19 percentage points, compared to 13 for boys, and girls’ test scores decrease by 0.24 standard deviations per mile, 0.09 standard deviations more than boys’. There is a strong demand for continued CBE through higher grades, even up to grades 9 or 10.

They conclude the major findings on the importance of distance as follows:

Virtually all girls and boys, especially boys younger than grade 5 or 6 drop out when handover involves transfer to an MOE school as little as 3 kilometres away.

Girls’ handover dropout does *not* derive from resistance to girls’ education per se; on the contrary, parents urge more educational opportunities for their daughters, provided it can be accessed closer to home.

Handover dropout is *not* related to suspicions regarding government-provided education. Although many see the MOE as less capable of providing support for students and teachers than NGOs, MOE schools – and handover – are viewed as a ticket to higher grades and higher education.

¹¹⁴ Burde & Linden PACE-A Handover

Parents and MOE officials alike recommend that CBE classes be continued in the communities through higher grades. Although CBE policy allows handover and continuation as MOE outreach classes, both parties appear to assume that continuation would have to be supported by NGOs¹¹⁵.

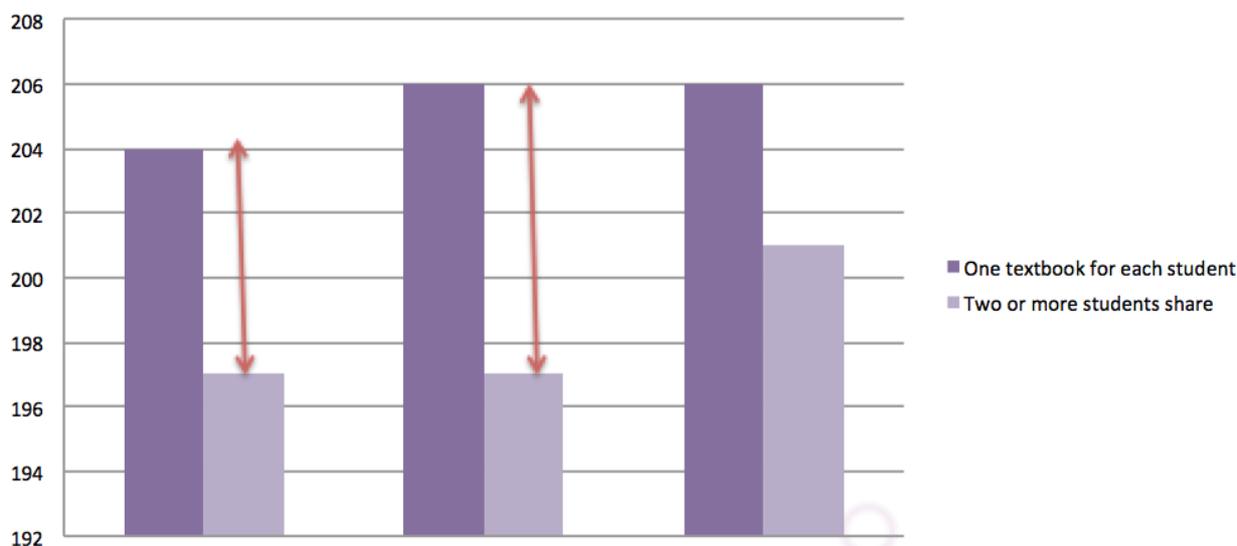
Teacher support

Student learning achievement is somewhat associated with teacher qualifications but more importantly with supporting teachers in the classroom: The effect on student learning of university qualified teachers in a school was not as great as the effect of providing direct support to teachers in the school (teacher education visits). This raises a discussion point related to 'Teacher qualifications' AND 'teacher Support'¹¹⁶ Inspector/supervision visits have a small association with writing achievement and none for reading or mathematics. Teacher educator visits, however, have a significant correlation with higher achievement in all three domains.¹¹⁷

Textbooks and learning

There is strong evidence to support the goal of having a full set of textbooks for each student. The correlation between textbook use and learning outcomes shows better score values of 7 in Maths, 9 in Reading and 5 in Writing.

Textbook Use and Learning Outcomes



Students who have to share a textbook may be on average 6 months behind students in reading who have their own textbooks¹¹⁸

Parents' Education Level

The significance of parent's education level on student academic performance is quite high as can be seen from the graph below. Students with no parents are seriously disadvantaged.

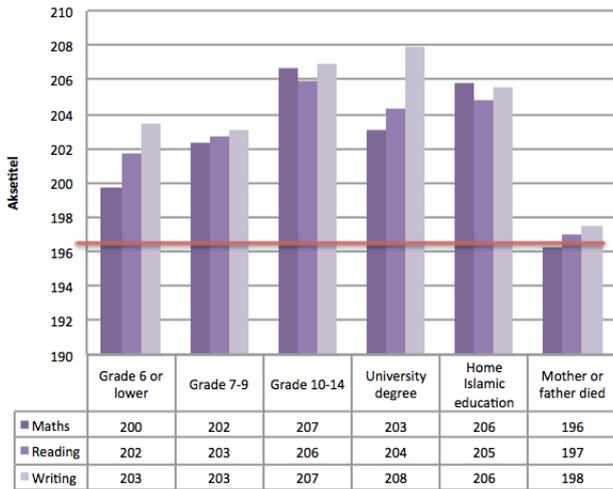
¹¹⁵ Byrde et al: PACEA Report to Danida p. 14

¹¹⁶ DMTEGAfg-C6, ACER

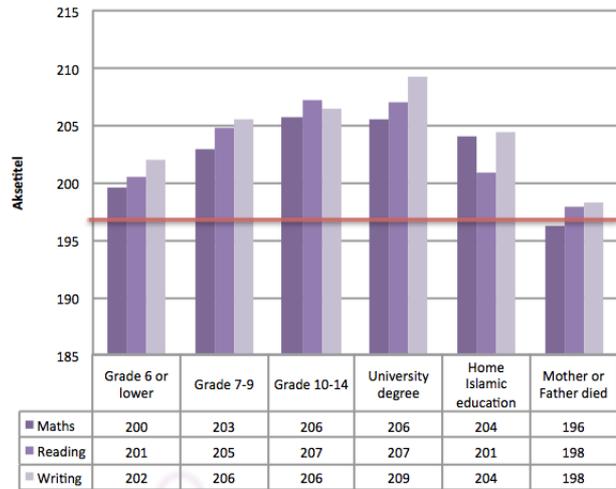
¹¹⁷ Ibid.

¹¹⁸ Source: DMTEGAfg-C6

Mothers Education



Fathers Education

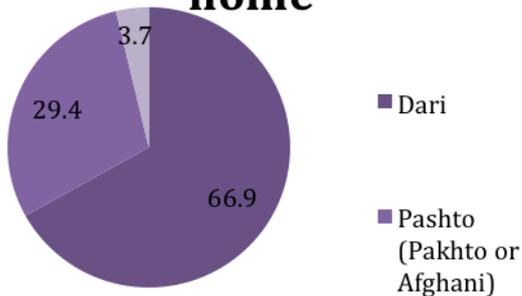


The performance of students who do not have a mother or father may be up to 6 months behind those students who have parents that completed secondary school

Language and mother tongue:

Students who speak a language other than Dari or Pashtu in the home are on average six months behind their peers in school.¹¹⁹

Language spoken at home



Student achievement by language spoken at home



4.2.3 The Analysis of Factors' Cost-Effectiveness

The previous section demonstrated the effect of various factors on learning outcomes. In situations of scarcity it would be beneficial to be able to determine the relative significance of the various factors in order to make rational policy choices between alternatives. Such an analysis, however, would require that we were able to isolate and calculate the net effect of specific factors on learning results and that we were able to construct the annualised unit costs of the chosen factors.

¹¹⁹ DMTEGAfg-C6

So far, we have not been able to isolate the unit costs of such factors as e.g. textbooks, qualified teachers, teacher support linked to CPD and others.

Given the strong evidence of the positive effects on enrolment, retention and learning of CBE schools, one of the most interesting cost-effectiveness analyses we could think of is the cost-effectiveness of CBE in remote and sparsely populated areas versus MOE hub schools at a distance higher than 1 - 2 kilometres from students' homes.

4.2.4 Institutional Analysis

MOE has made significant progress since 2007 in building a modern and functional education administration. Still, however, a number of challenges remain in its work on institutional reform. The organizational structure of the Ministry of Education¹²⁰ now loosely corresponds to its five main programmes identified in the National Education Strategic Plan (NESP). The MoE has six Deputy Ministries: (i) Administration and finance; (ii) Islamic education; (iii) Literacy; (iv) Technical and vocational education and training (TVET); (v) Curriculum development and teacher training; and (vi) Academic.

The Deputy Minister for Administration supervises key administrative directorates and Finance. These include the directorates of procurement, finance and accountability, infrastructure service (ISD), information technology, and the general directorate human resources (HRGD). Furthermore, there are several (general) directorates working directly under the Minister, including the planning general directorate, and the internal audit directorate. At the sub-national level, the MoE's structure is sub-divided into three levels: provincial directorates (PED), district directorates (DED) and schools. There are 35 PEDs (one for each province and an additional one for Kabul city), 424 DEDs, and around 16,500 schools, together employing more than 200,000 civil servant teachers. The organizational structure of the PEDs is similar to the central MoE. It includes six senior managers, corresponding to the Deputy Ministries. The senior manager for administration and finance supervises most administrative functions. Planning and audit departments are supervised directly by the PED director. The DEDs are headed by a district education director, and have two main departments: one for administration and finance (responsible for processing teacher attendance sheets and salary payments requests), and one department responsible for the monitoring and supervision of schools.

Each District Education Officer (DEO) submits implementation reports of annual operational plan to their respective Provincial Education Directors (PED) at the end of each quarter and the PEDs submit a consolidated provincial implementation report to the central program departments of MoE. After review of relevant program directors these reports are consolidated into a national report of implementation of the annual operational plan. In meanwhile the program directors and managers analyse implementation challenges identified at each level and provide guidance and instruction to address the issues encountered.

After appointment of the new education minister, the MoE 100-days plan was developed based on the annual operational plan, with a focus on the areas that accelerate reform and improved education service delivery and assist MoE in confronting fundamental issues. This plan is program-wise and each department will implement relevant planned activities and provide a progress report.¹²¹

The Education Management Information System (EMIS) was initiated in 1384 (2005). It has its own Directorate and has developed into a comprehensive information service for MOE. It undertakes the Annual School Census (ASC) based on a comprehensive census questionnaire form and the Directorate is responsible for collecting, storing, processing and disseminating all education

¹²⁰ "Educational Sub-National Assessment", Altai Consultants, 2015.

¹²¹ MOE 100 Days Plan

statistical data. Moreover it is responsible for developing information systems and reporting against NESP indicators.

An increasing number of data are placed every year on the MOE's website and with the addition of data sets on expenditure and performance disaggregated by e.g. sex, age, school, district and province it will be possible to extract information for planning and monitoring system performance with statistical rigour but, so far, the use of this data for policy analysis has been limited. In 1390 (2011/2012) an EMIS Statistical Analytical Report was published by MOE Department of Planning and Evaluation but, despite its title, the report was mainly descriptive and no correlation analyses were made.

Monitoring of education performance has significantly improved over the last few years. There are now two dedicated units in MOE, the Monitoring and Reporting unit under the EMIS Directorate and the Research and Evaluation Unit under the Directorate of Strategic and Operational Planning, which are responsible for M&E but still the logic of the functional division of labour of these units merits further reflection. (See MOE organogram in Annex).

Since 1391 (2012) and in 1392 and 1394 (2015) MOE has conducted an Education Joint Sector Review focused on Planning, Management, EMIS, M&E, Reporting, Budget and Finance and HRM as well as progress and challenges in the five NESP programmes. The two last EJSRs have been internal without the participation of developing partners (DPs) but with extensive participation from representatives of all MOE administrative levels from HQ to schools. The 1394/2015 EJSR was structured on an analysis of three of the main NESP programmes, Higher Education and crosscutting issues, and it involved visits to a sample of 9 provinces¹²² selected on basis of parameters like security, previous EJSR visits, language, ethnicity, regional diversity and degree of development.

Decentralisation, is a high political priority The main thrust of the 1394/2015 EJSR report, expected by February 2016, will be on this. DEDs and schools, for example, do not know about their budgets. Under the World Bank sponsored EQUIP programme school management councils or "shuras" have been established in a large number of schools. With training of shura members and the introduction of school enhancement grants an attempt was made at fostering real decentralised decision-making. While in some cases either PEDs or principals continued a rather autocratic management style, there were other cases, where the establishment of shuras have led to authentic participation. In an evaluation report on Swedish assistance to education in Afghanistan¹²³, many shuras were reported to perform well, and there was much praise of the results that have been achieved: Shuras had improved security, enhanced community ownership and promoted a positive attitude towards increasing access to education for all. Some mentioned that before the shuras were involved, construction was often of poor quality and dangerous.

Further institutional reform and capacity building of the MOE is critical for sustained delivery of quality services. The system is heavily centralized and there are still many examples of unclear functional mandates of sector departments and offices, of lack of coordination leading to duplication, fragmentation and inefficiencies and of excessive dependence on short-term technical assistants (TA).

The issue of technical assistance and the need for sustainable staffing and capacity building has been a recurrent issue among the education sector stakeholders. A draft assessment report on TA with a proposal on capacity building reform states: "A major capacity objective will concern staffing and the need to recruit better qualified personnel to achieve the reform objectives. As explained,

¹²² The 9 provinces were: Farah, Kandahar, Laghman, Balkh, Parwan, Kapisa, Panshir, Nangahar, Kabul Province.

¹²³ Evaluation Report: Evaluation of Swedish Support in the Education Sector in Afghanistan – 2012, by Pouras Consult; SIDA, 2013

rapid expansion of services together with fragmented support from DPs has in the past led to an unsustainable provision of technical assistance (TA) through the development budget for key ministry operations. This has been coupled at central and provincial levels with inefficient and capacity-draining projectisation, duplication of effort and lack of clear agreement on outcomes. A characteristic of this unsustainable situation has been the deployment, alongside tashkil personnel, of large numbers of donor-funded national TA with the short-term responsibility for carrying out MoE operations.”¹²⁴

SECTION 3: MANAGEMENT OF TEACHERS

4.3.1 Quantitative aspects of the management of teachers

Budget Constraints Prevent Hiring of Qualified Teachers and Pupil-Teacher Ratios continue to be high

Afghanistan is characterized by a severe shortage of teachers evidenced by its high Pupil-Teacher Ratio (PTR). In 2013 it was 45:1, which is slightly higher than the official policy of PTR of 40:1. It is worth noting that there has been a significant progress in terms of provision of teachers in schools where the number of teachers in general education schools (primary and secondary) has risen from 110,000 in 2007 to 187,000 in 2013. The teacher shortage is worse in the rural areas, especially amongst female teachers. Out of the 187,000 teachers in general education, only 33 per cent are females and only very few of these are in rural schools. On teacher recruitment, availability of adequate finances is a major hurdle; the HR, driven by availability of budget from MOF, substantially reduces requests given by PEDs every year. PEDs, as a result are 'left with no choice' but to recruit teachers on contract to meet the school demands, and supposedly for hiring of contract teachers, which have a separate budget line and work on lower salaries compared with regular teachers.

The shortage of teachers is combined with an incoherent distribution by province as reflected in provincial disparities in Pupil-Teacher Ratios (PTR) as shown in the map below. The ratio of pupils per teacher at provincial level in the primary cycle varies. In 10 provinces the ratio is 30-40, in one province (Parwan) the ratio is 29 and in the remaining provinces the ratio is more than 40. Parwan province has the lowest ratio and Daikundi (69) has the highest ratio in the primary cycle.

Student-teacher ratio by province

¹²⁴ Still unpublished Draft Report on TA and Capacity Building for Results by G. Taylor

Map 7 Student to Teacher Ratio (STR¹²⁵) by Province

Source: Calculated from EMIS data 2011/12



4.3.2 Qualitative aspects of the management of teachers

Policy and guidelines

According to the Afghanistan educational system the minimum education standard for teachers is graduation from grade 14. One of the main challenges that Ministry of Education is facing is insufficient number of professional teachers for different cycles of education.

Out of 193,044 teachers at different levels, 82,898 of the current teachers, equivalent to 43 %, fulfil the minimum standards of teaching and the remaining 57% who have not completed the criteria of professional teachers are recruited as contact teachers in remote areas due to the lack of teachers.¹²⁵

In 1390/2011 there were 170,174 teachers¹²⁶ and in 1391/2012 there were 180,821¹²⁷, and in 1393 the number had risen to 188,023¹²⁸ corresponding to a 9.49 % increase in the teaching force over three years.

Current EMIS on teacher qualifications is not disaggregated by sex. MoE has been making efforts to enhance the capacity of these teachers through short term courses and recruiting them in the In-service Teacher Education programs, so that to improve the quality of teaching and learning.

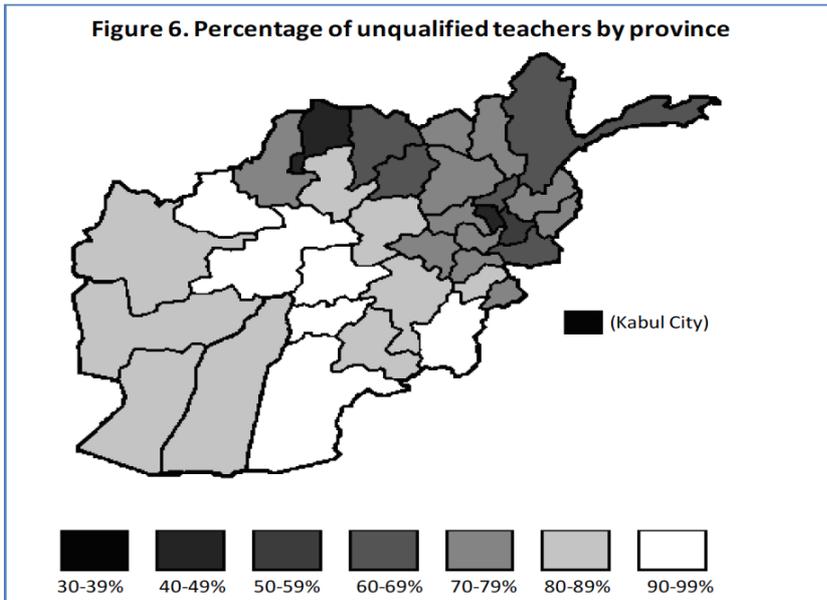
The following map illustrates the huge regional disparities in teacher qualification:

¹²⁵ EFA 2015 Review Afghanistan, MOE, 2014

¹²⁶ MOE Annual Report 1390

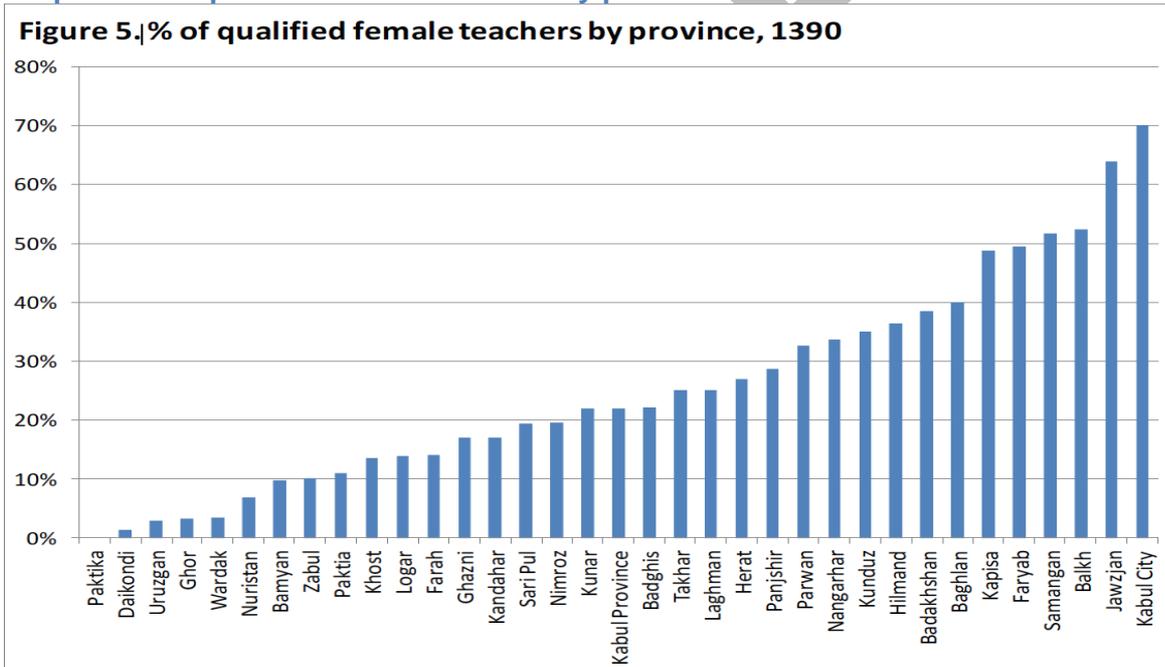
¹²⁷ EJSR 2013

¹²⁸ EMIS 1393



Source: EJSR Sub-sector Report on Primary and Secondary Education, MOE 2012

Proportion of qualified female teachers by province



Source: EJSR Sub-sector Report on Primary and Secondary Education, MOE 2012

The current distribution of qualified teachers shows that urban centres and the Northern regions have a much larger proportion of qualified female teachers than other regions of the country.

A number of strategies, including targeted in-service training for CBE women in rural areas, have been piloted to address this imbalance. So far, however, the results have not been satisfactory. There are several reasons for this: ignorance of MOE teacher policy and incoherent incentives at PED and DED level undermine the efforts. In addition, the criterion of not contracting teachers with less than a grade 12 examinations prevents capable CBE teachers from being absorbed into MOE, despite the fact that many of these may be better teachers than formally qualified TTC graduates.

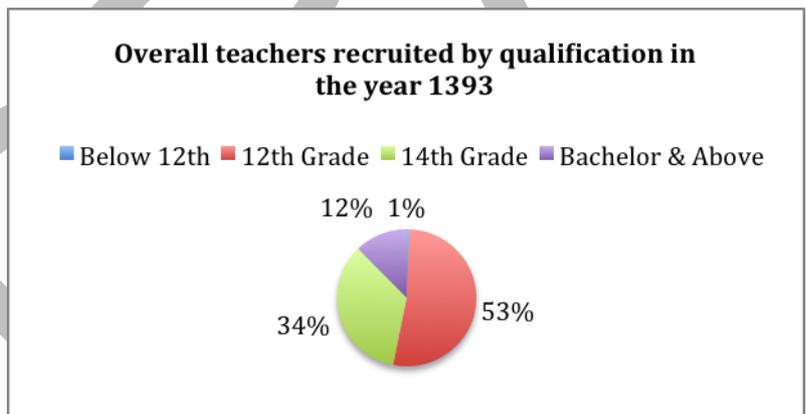
The PACE-A Handover Report¹²⁹ showed that the handover of CBE schools to MOE might involve MOE taking on the CBE teachers as well, but this rarely happens. Once the MOE takes over responsibility it may exert its right to replace or not hire CBE teachers. This however is problematic from the perspective of the community, where much effort has been invested in training locally recruited CBE teachers. In cases where the CBE teacher is capable and by being locally known and trusted, contributes to ensuring high enrolment rates among girls.

“A well trained and experienced CBE teacher may well be as competent in a classroom as a 12th grade graduate, or even more,, and so replacement should not be based solely on the grade 12 criterion. Current policies and guidelines do in fact provide some flexibility and options for waiving the requirement of a 12th grade education for MOE teachers, including teachers in formal schools, who can be hired on contract rather than on permanent basis. However, many local MOE officials are not aware of this and/or they do not recognize CBE teacher training as sufficient qualifications...”

PRESET or INSET?

There is an on-going discussion on the advantages of In-service teacher training over Pre-service teacher training, and it has been suggested that pre-service training should be completely replaced by in-service training aimed at upgrading qualifications. A few facts from the ISAPS review of teacher training¹³⁰ are worth mentioning. First, in the selected provinces, the number of in-service students enrolled at the TTCs to upgrade their qualifications is twice that of the pre-service students or fresh graduates (In-service, 7248; Pre-service, 3597). This shows a tendency that the in-service teachers are enrolling and benefitting from the TTC.

Second, based on the payroll data received for the year 1393, the ratio of teachers graduated by the TTC to those employed as regular teachers is 34% across the country. On the other hand university graduates represent only 12% of the teaching force. This is so despite the fact that hiring process of teachers does not give any special preference to TTC graduates. The following pie chart illustrates these numbers.



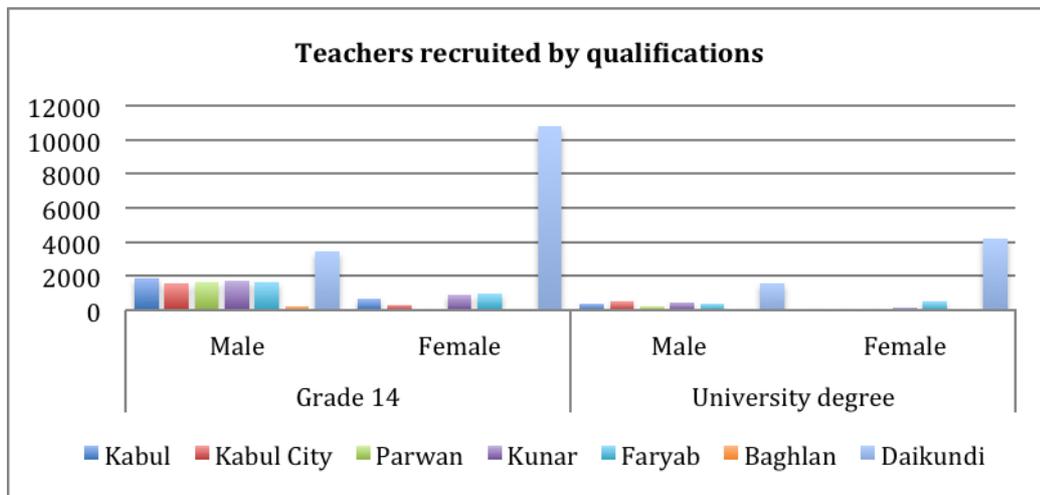
Recruitment of teachers by qualification across country

Similarly, when one looks at the recruitment of teachers by qualification in the 7 provinces studied in the review¹³¹, it is clear that recruitment of TTC graduates substantially surpasses recruitment of university graduates as teachers. Refer to figure below.

¹²⁹ PACE-A Handover Report Final

¹³⁰ ISAPS: Third Party Review of Pre-service and In-service Teacher Training programs, EQUIP Evaluation

¹³¹ Ibid.



Recruitment of teachers by qualifications across provinces of interest

We know from research that Teacher education, especially that which focuses on development of the subject knowledge of teachers in tandem with pedagogical skills is shown to increase student achievement. It is suggested, therefore, that the pre-service programs are valuable because the system will always hire new teachers and will do better hiring those, who have professional qualifications from the TTCs. What is, however, needed is a precise determination of demand for both new and in-service teachers and intensive coordination between the PED and TTCs to enable TTCs to meet the recruitment and professional development needs of the PEDs.

A future Teacher Education System in Afghanistan¹³²

Under ideal conditions, teachers' professional education should form a continuum, with higher secondary education leading into the initial teacher preparation, followed by induction and on the job continuous professional development.¹³³



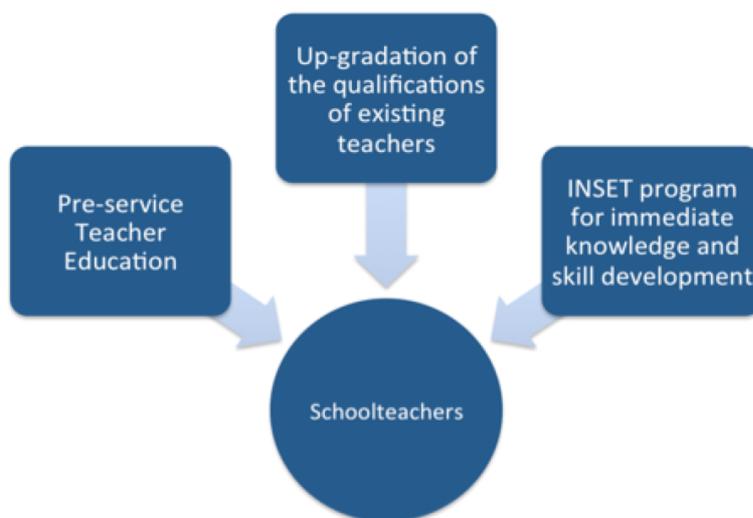
Continuum of Professional Development

In Afghanistan, however, this perspective on continuum is complicated by the challenges unique to its context. For instance, as of 2010, approximately 78% of all teachers (nearly 13,200) did not have the desired qualifications to be teachers and approximately 42,000 teachers had never graduated from secondary school.¹³⁴ Therefore, the country was in need of a system of teacher development that developed a regular supply of qualified teachers while also simultaneously upgrading the qualifications of a large volume of teachers inside the school system

¹³² This section is based on ISAPS: Third Party Review of Pre-service and In-service Teacher Training programs, EQUIP Evaluation

¹³³ Schwille, J., Dembélé, M., & Schubert, J. (2007). Global Perspectives on Teacher Learning: Improving Policy and Practice. *International Institute for Educational Planning (IIEP) UNESCO*.

¹³⁴ TED. (2010). Progress Report 2010: Teacher Education Department (pp. ii). Kabul: Teacher Education Department, Ministry of Education.



Teacher Education imperatives in Afghanistan

The EQUIP Teacher education review¹³⁵ review suggested that the institutional structures and modalities created over the last decade or so did respond to all of the imperatives mentioned above. In order to restore supply of qualified teachers, number of TTCs was increased from 4 in 2001 to 48 by the time of this review. The development of TDCs (a total of 259) was a response to the need to upgrade the qualifications of in-service teachers and DT3 modality provided a mechanism to reach out to maximum number of teachers with an intense dosage of knowledge and skills needed to improve both subject knowledge and pedagogical skills of the vast number of in-service teachers.

Until 2013, the TTCs had graduated a total of 136,658 (42% females). In 2014, TTCs graduated 30,413 (33% in-service teachers, 53% females) and enrolled another 37,852 (62% females). The award of GSP to girl students has contributed to a visible increase in the number of female student teachers.

Through the INSET-I, II, and IIIs, TED has been able to reach a total number of 122,675 teachers.

Teacher monitoring

There are no systematic data on teacher absenteeism. The role of shuras in monitoring this phenomenon, however, appears to hold a significant potential as well functioning shuras tend to increase the accountability of teachers as well as strengthening the demands side of education.

Academic Supervision

The MoE has increased the number of academic supervisors to 4600 but several challenges, which limits the impact of supervision remain: (1) transportation facilities are not available for district and provincial supervisors, (2) unqualified persons are hired as supervisors, (3) Adequate training and support for supervisors are not available, (4) a functional reporting and follow-up system is not in place, (5) district supervisors' reports need to be approved by district education managers, which often leads to removing negative reports, and (6) supervisors mostly focus on inspection function rather than providing academic support, (7) the number of female supervisors is very low, and (8) parallel supervision systems within the General Education Deputy Ministry without defined roles and responsibilities.

¹³⁵ ISAPS: Third Party Review of Pre-service and In-service Teacher Training programs, EQUIP Evaluation

Nepotism:

A practice of registering the sons and daughters of powerful people as teacher training students without them actually studying and subsequently claiming a TT certificate to be employed as teachers has been widespread over the country. This has led to poor teaching and learning¹³⁶. In order to counter this nepotism the role of District teacher training colleges will be gradually diminished in favour of a provincial based TTC, which is supposedly less prone to political intervention.

SECTION 4: THE MANAGEMENT OF OTHER RESOURCES AND OF TEACHING TIME

4.4.1 Management of resources other than teachers

Textbooks

The majority of schools receive less than 75% of the number of books that they request for their students and the physical quality of the books is often poor. In order to cope with this shortage schools often encourage parents to buy books from the market. Market books are typically inferior quality copies of official MOE books. In other cases, teachers just dictate notes that the students copy.

So far, the number of textbooks and calculation of the Textbook to Pupil Ratio (TXPR) are not reflected in the MOE annual reports and EJSRs.

The EMIS school census form does have a questionnaire pertaining to *Existing Study Book Quantity* specified by class (1-12) and subjects (31).

We will attempt to calculate the average TXPR by selected variables (class, subject, province).

Below the MOE process of identifying the needs for and managing the provision of textbooks is explained in detail¹³⁷.

Identifying the needed quantity and management and distribution of textbooks

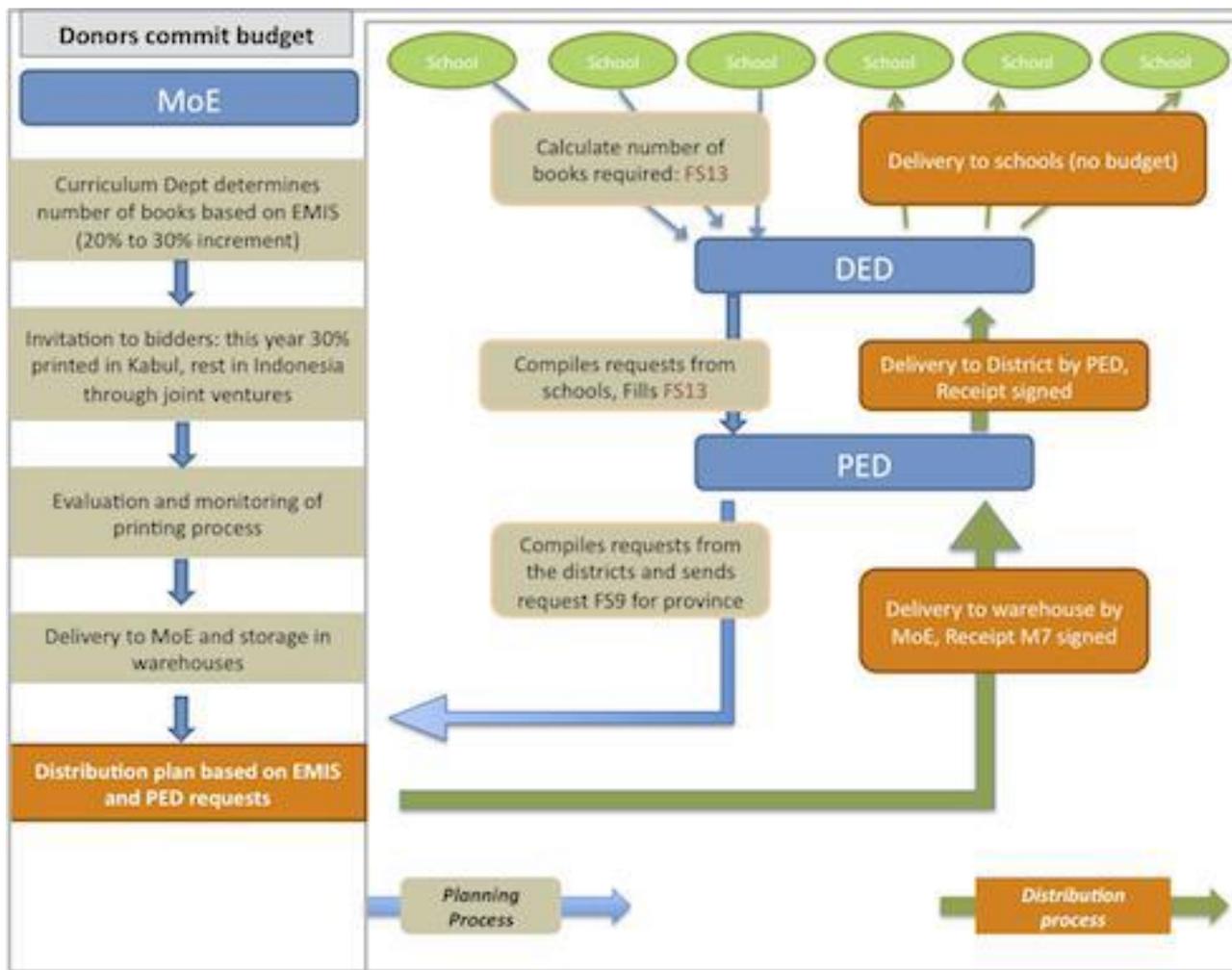
The need for textbooks is established by collecting school level data on number of students at each grade and the corresponding subjects and by deducting the number of books in stock. These requests are compiled at district and province level and forwarded to MOE Curriculum Department.

Three main steps can be differentiated in the provision of sufficient number of textbooks to the schools: request, allocation and delivery. Before identifying the bottlenecks that exist at the various stages, it is important to understand the process details in theory

Textbook distribution process

¹³⁶ Interview with Min of Ed 2.9.2015

¹³⁷ Based on: Public Expenditure Tracking Survey (PETS); Synthesis Report, Altai Consulting, 2011



Requesting the textbooks

The number of textbooks that will be requested for the school year are defined in each school. At the end of the year, the school bookkeeper collects the books that are still in working condition from the students, counts them and stores them in the bookstore. Each school fills the F13 request form and sends it to the DED. The DED compiles the requests from all the schools and sends them to the PED. The PED in turn, collated the requests from all districts of the province to send a FS9 request form to the central MoE.

Allotment of textbooks

The MoE curriculum department determines the number of books needed for the next year based on data from the EMIS. Each textbook delivered has an estimated life span of three years currently. The quality of the books that have been printed for 1390 are visible better than those of previous years in terms of the quality of paper. The estimated number of books is always incremented by 20%-30% to account for unexpected requirements (additional request, deterioration due to various factors). MoE publications department then considers the requests from the PEDs in order to draw-up the distribution plan.

Distribution of textbooks

The distribution plan details the number of books that will be sent to each province. The MoE delivers the books from the storage to the PED stores. The logistics department of the PED receives, and is expected to count and store the books. The PED then delivers the books to the DED, who in turn is responsible for the final delivery to the schools.

Bottlenecks in Textbook distribution

The PETS also analysed the request-allocation-delivery process of textbooks. It examined if schools were receiving sufficient amounts of textbooks and identified bottlenecks in the process and opportunities for leakage. About a quarter and a third of schools reported having received over 75 % of the required amount. The majority, however, received much less than this. In some districts, a quarter of schools received less than 25 % of the required books

Reasons for inadequate distribution of books according to principals are: poor distribution, insufficient number of printed books and flawed allocation. When they were asked about the reasons, a majority of interviewees identified mistakes in distribution as the main reason. In one district, a quarter of the interviewees thought that lack of books at the central level explained the lack of books in schools, suggesting that not enough books had been printed. In other districts, however, however, the main reasons identified was the lack of books at the provincial or the district level, suggesting that it was an issue related to the allocation process.

Coping mechanisms

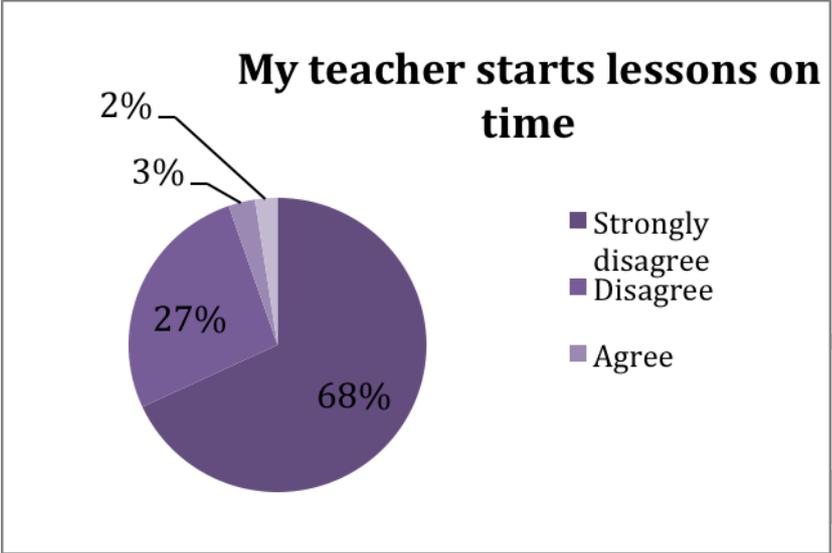
In order to compensate for the lack of sufficient textbooks, schools have various mechanisms. Most simply request that students buy the books from the market. Such books, however, are not always in line with the curriculum. When they are, they are poor quality copies of the MoE books. In some districts students used old books from the previous years and curriculums, while others stated that the teachers just dictated notes for the students to take down. In some schools, students shared books. Discussions with some DEDs suggested showed that in certain cases there was exchange of books with other schools or other DEDs when these had a surplus of a given subject or given class TB.

4.4.2 Monitoring Effective Teaching Time

The effective teaching time in Afghanistan is severely limited by a large number of holidays, summer (15) and winter (90), examinations (52), and various celebration days. At a meeting with private school principals and owners¹³⁸ it was suggested that the effective annual school year is as little as 180 days, which is in stark contrast to the number of school days in neighboring countries, which was estimated at between 218 -228.

We do not have any data on the number of daily contact hours, but there seems to be potential gains to be made if effective teaching time could be ensured. In the ACER study only 5% of students indicated that their teachers started lessons on time (DMTEGAfg-C6).

¹³⁸ Meeting with private school principals and owners at MOE 12 September 2015



DRAFT

CHAPTER 5 EXTERNAL EFFICIENCY

SECTION 1: THE ECONOMIC IMPACT OF EDUCATION

5.1.1 Description of the Labour Market

Afghanistan's labour market suffers from a number of imbalances. On the supply side the labour force could be characterised as poorly educated, largely informal and lacking the requisite skills to develop their career further¹³⁹. Slightly more than two thirds of the labour force of 8.5 million is less than 40 years of age. 40 percent remains not gainfully employed (underemployed or unemployed) and 78 percent is in vulnerable employment. Meanwhile, a total of 6.8 million Afghans in the working age, mainly women (5.3 million), do not participate at all¹⁴⁰.

On the demand side agriculture accounts for two fifths of all employment, manufacturing for less than a tenth, while the recently more dynamic trade, transport, finance, real estate and insurance sectors account for a little less than a fifth. Agriculture, while the primary driver of economic activity in the districts, has a more limited impact in the urban centres. In a study of four districts only 3.7% of all surveyed urban-based individuals derive the largest share of household income from agriculture and only 1.5% of employers and employees were involved in the agriculture sector. Although important for day labourers, agriculture adds value to urban economies directly through trading and transportation and indirectly through income generation for the rural population.

The urban labour markets resemble the economic activities of the provincial capitals. The primary sectors driving the economy and providing employment is the wholesale and retail trade, followed by the manufacturing sector. On the supply side there is a perception of a labour market divided into two categories of workers.

The first category were educated, generally in the urban centres, and due to their literacy were able to access further education opportunities as well employment within the government, NGOs, the UN and the limited number of jobs within the formal private sector.

The second category of workers were generally deemed to be illiterate or with low education standards, often from the districts, and reliant on low skill jobs in the bazaars as cart haulers, day labourers for the construction industry or agricultural workers during the harvest or planting season. This second category of workers were reportedly also able to access apprenticeships or on the job training within the family business in fields such as baking, carpentry, construction, masonry, mechanics and metal work.

Most SMEs are family-run enterprises. Small businesses overwhelmingly remain family affairs with recruitment and access to credit primarily undertaken through social networks and formal contracts with employees being a rarity. Approximately a third of all employees stated that a relative was the owner of the business, which supports the assertion that many of the small manufacturing and trading businesses are family-run, with young males commencing work in their early teens, often forgoing the opportunity of an education. The informal nature of businesses also extends to registration, as approximately 11.2% of employers have not registered their firm with any official department or agency¹⁴¹.

¹³⁹ Hall 2014: *Economic Assessment and Labour Market Survey of xxx provinces*, Mercy Corps ...

¹⁴⁰ CSO ALCS 2015

¹⁴¹ Hall, op. Cit.

Many youth pursue work opportunities in the day labour market, as opportunities remain limited in the formal labour market. Day labourers, with high levels of illiteracy, comprise perhaps the majority of workers in the construction industry and undertake many manual jobs, including seasonal agricultural work, for an average of between 250 to 350Afs a day for a unskilled worker.

Cross-border labour migration is widespread. In addition to day labouring opportunities, interviews in the three northern provinces suggest that between one in two and one in three households have at least one son working in either Iran and Pakistan. Labour migrants appear to be better educated, and males at least perform much better in the labour market than the general population: a greater proportion of internal male migrants were gainfully employed, found better jobs, and earned more, although male immigrants were less successful in finding gainful employment and had higher rates of unemployment. Labour migration represents an important part of a family's income, particularly in times of economic shocks, such as the current drought across large parts of the north of the country. Perhaps perversely, Afghan youth migrate to Pakistan and Iran to fulfil largely unskilled labour, similar to the day labourers congregating in the main squares of Afghan urban centres, while Pakistani and to a limited degree Iranian labour migrants fulfil some of the more skilled occupations in Afghanistan¹⁴². Lately, the traditional labour migration destinations – Pakistan and Iran – seem to have lost much of their appeal to migrants while the Gulf states have emerged as important labour migration destinations.

In terms of qualifications, the findings from a study of four districts seem to have a general validity¹⁴³. The labour supply could be characterised as poorly educated, largely informal and lacking the requisite skills to develop their career further. Approximately 45% of surveyed employers and employees are either illiterate, literate with no schooling or were schooled up to primary school¹⁴⁴. The latest ALCS found that an overwhelming 61 percent of all employed have not been to school and only ten percent have attended school up to primary level. Consequently, nine tenths of the employed workforce is in unskilled occupations¹⁴⁵.

Formal skills in the labour market are also limited as there are few formal training mechanisms that either employers or employees have previously reported accessing. An average of 61.2% of employers and 62.1% of employees had not received any formal training in their current employment, while a further 22.5% of employers and 34.2% of employees had received internal training, which is often conducted by a relative considering the familial nature of many businesses¹⁴⁶.

Gender differences in labour market outcomes are stark: while participation rates are low (29 percent), unpaid family work and agriculture account for at least two thirds of female employment, and women's mean and median monthly earnings are much lower than men's in equivalent occupations. Comparison of labour indicators between 2007-08 and 2012-13 suggests that there has been a large shift of the labour force from working to unemployed, particularly in the urban sector. A substantial slowdown in growth constrained by persistent uncertainty surrounding political and security transition, increased levels of conflict and a downturn in aid, are likely to be underlying factors¹⁴⁷.

¹⁴² Hall op.cit.

¹⁴³ Ibid.

¹⁴⁴ Ibid.

¹⁴⁵ CSO, op.cit.

¹⁴⁶ Hall, op. Cit..

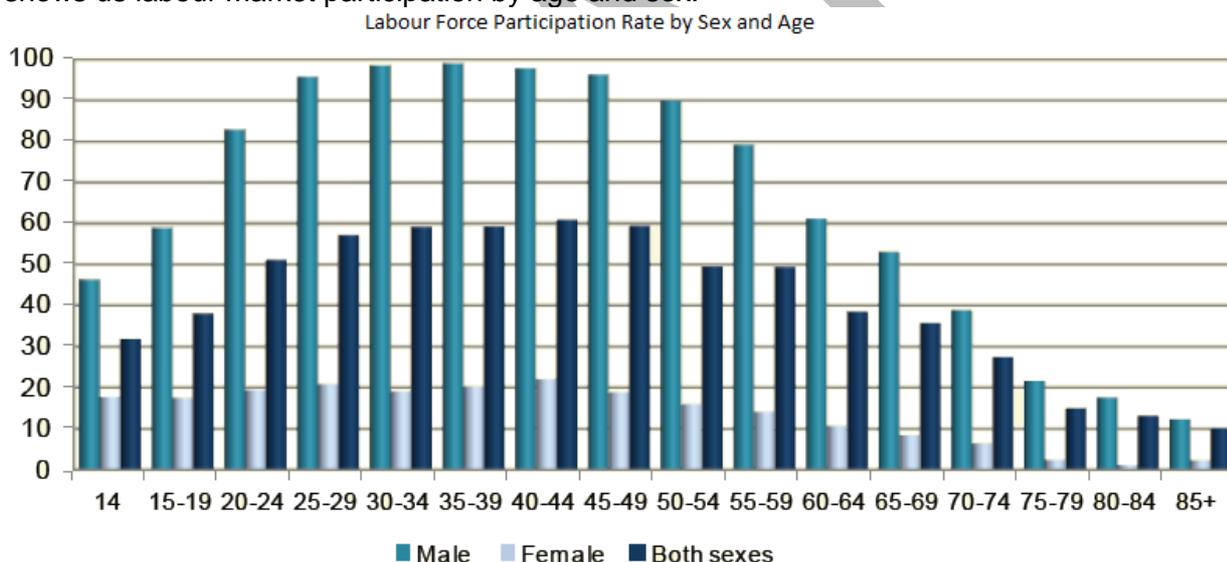
¹⁴⁷ CSO op. Cit.

The analysis of the labour market suggests that both demand and supply side measures are necessary to promote the growth of decent employment opportunities in Afghanistan. The demand for labour needs to be increased through the aggressive promotion of entrepreneurship and small businesses catering to export markets as well as to domestic and local markets. The agricultural sector needs to be made more productive by providing better inputs, such as improved seeds and fertilizer; storage facilities; creating functioning local markets; and rebuilding transport and communication networks to access more distant markets. At the same time, workers must also be equipped with demand-driven skills so that they can create productive self-employment opportunities, or else take up the job opportunities created by a growing business class¹⁴⁸.

5.1.2 Labour Market Structure and Dynamics

In analysing the education sector, we must also consider how education is meeting the demands of the society and the labour market. Since labour-market data over multiple years is not available, it is difficult to deduce trends and future needs. Still, we have used data from the NRVA to learn about the current state of the labour market.

In order to assess the economic impact of education, we first study the characteristics of the labour market. The NRVA data tells us that 54% of the Afghan population is of working age (14 years or older). Labour force participation is 49.8%, however only 19% of the female working-age population is active in the labour market while the number is 80% for males. The graph below shows us labour market participation by age and sex.



We can see that over 45% of males and 18% of females of age 14 participate in the labour force. The participation is consistently higher for males in all age-groups. While participation of males increases considerably between the ages of 20 and 60, the participation of women does not fluctuate with age till the age of 60. [5]

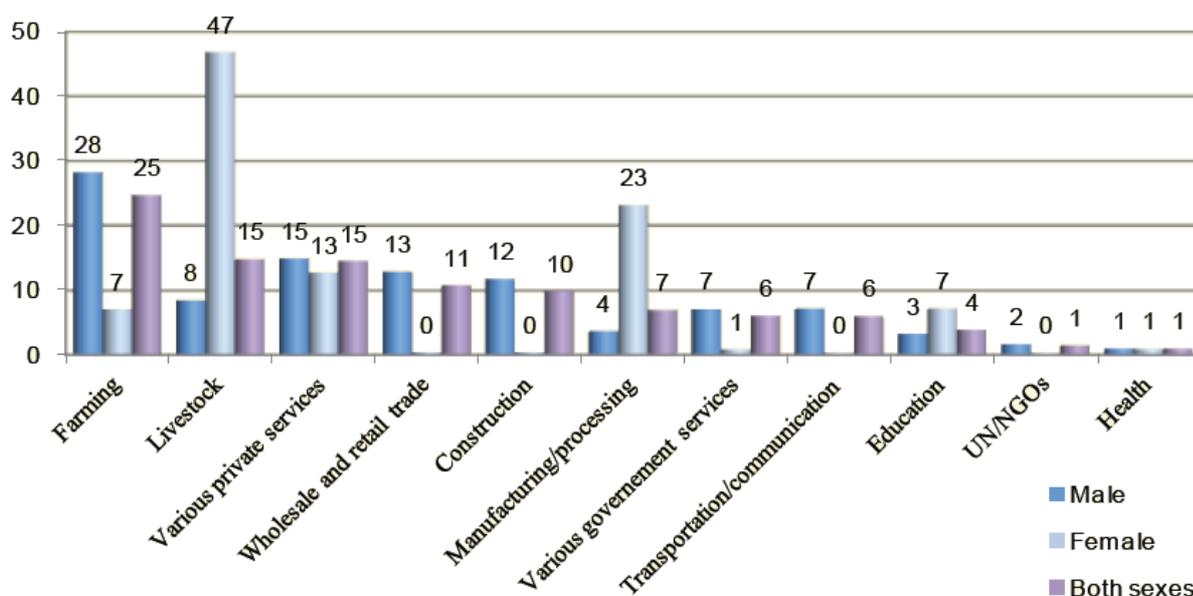
Residence, sex	Labour force participation rate	Employment to population ratio	Underemployment rate	Un-employment rate	Not gainfully employed population
Urban	43.1	39.2	8.6	9.0	17.6

¹⁴⁸ CSO ALCS 2015

Male	72.0	66.5	7.7	7.7	15.4
Female	12.9	10.8	14.1	16.7	30.8
Rural	51.3	47.1	18.7	8.2	26.9
Male	82.1	77.1	17.5	6.1	23.6
Female	19.3	15.9	24.0	17.6	41.7
Kuchi	64.4	61.0	23.3	5.4	28.7
Male	91.4	87.2	20.8	4.7	25.5
Female	36.6	33.9	29.8	7.2	37.0
National	49.8	45.7	16.8	8.2	25.0
Male	80.0	74.9	15.4	6.4	21.8
Female	18.5	15.5	22.8	16.5	39.3

The table above provides another perspective into the labour market. Labour force participation is high among the Kuchi people compared to the rest of the population. Unemployment rate nationally is about 8%, and is higher in urban areas. About 17% of the national population is underemployed. In fact, 12% of females and 42% males of age above 14 said that they were willing to work more hours. [5]

Percentage of Employed Population of Age 14 and Above by Sex and Sector



Data from NRVA shows that 40% of the Afghan population of age 14 and above is employed in agriculture (farming and livestock). The figure is even higher if considering child labour. Female participation is highest (47%) in the sector of livestock, and then in manufacturing (23%). Education is the only service-oriented sector where female participation is higher than male participation. Female participation is non-existent in trade, construction, transportation, and other formal sectors.

Perceptions on economy and employment¹⁴⁹

More than one-third (39.6%) of Afghans say that their economic situation was better last year than this year, while 36.9% say it has not changed since last year. The percentage of Afghans who say their economic situation has improved over the past year is 21.5%. For the first time, this year the

¹⁴⁹ Survey of the Afghan People 2014, The Asia Foundation

survey looked at the issue of migration. Nearly one quarter (22.3%) of Afghans say that they left Afghanistan at some point over the past 23 years (i.e., since the fall of the Najibullah government), while 14.5% say they moved from one province to another. While war and insecurity were the most commonly cited reasons for leaving the country or province, economic reasons are also salient. Among those who left the country, 27.0% say they did so due to the economy or lack of jobs, and among those who moved from one province to another, an even higher proportion (38.8%) moved for economic or employment reasons. With regard to the self-reported unemployment rate, the percentage of Afghans who say they are unemployed and currently looking for work increased significantly from 6.6% in 2013 to 10.7% in 2014. Men's self-reported unemployment has dropped from a high of 25.5% in 2009 to 10.0% in 2014, while women's self-reported unemployment has increased from a low of 0.1% in 2009 to a high of 11.3% in 2014. Because the percentage of women who say they are working remains steady, this increase in self-reported unemployment likely does not represent an increase in women's joblessness, but rather an increase in interest among women to join the workforce. Over time, the percentage of Afghans who say that female members of their family contribute to household income has increased from 13.9% in 2009 to 22.4% in 2014. The percentage of households with women contributing to household income varies widely between provinces, from a low of 1.1% in Khost to a high of 63.7% in Nooristan. Average monthly reported income is \$190 USD (10,839 Afghans) with Afghans in rural areas reporting a significantly lower household income of \$170 USD per month (9,701 Afghans) than Afghans in urban households (\$261 USD per month, or 14,903 Afghans). Income shows a significant positive correlation with self-reported happiness; Afghans with higher incomes report higher levels of happiness. However, beyond a threshold of \$700 USD (40,000 Afghans) per month, the relationship is no longer significant.

5.1.3 Employability of Education System Leavers and Graduates

The employability of education system leavers can be analysed from three perspectives¹⁵⁰: access to work; the optimal use of employment potential (over-qualification), and remuneration.

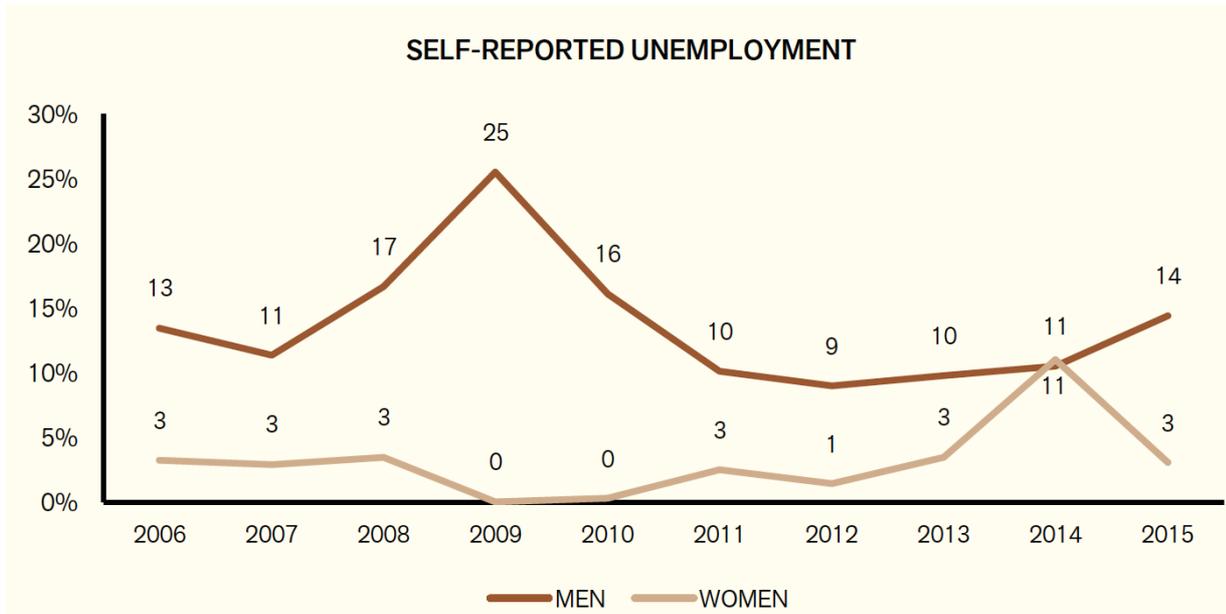
Access to work/unemployment

Each year, the survey¹⁵¹ asks Afghans about their employment status, including whether they are currently jobless and looking for work. This question does not produce an official employment or unemployment rate, but it does reveal meaningful trends over time. In 2015 nearly three-fourths (72.8%) of Afghan men report that they are working, lower than last year's reported rate of 80.0%, while 87.0% of Afghan women say that they are housewives, and 5.5% say they are working.

One notable change is a decrease in the percentage of women who say that they are jobless and looking for work. Whereas 11.0% of women in 2014 said they were without work, and seeking it, this number dropped to 3.1% in 2015. This decrease does not reflect any change in the wording or coding of the survey question. Some of these changes may be related to rising concerns over security (i.e., women may be less likely to actively seek work due to a deteriorating security situation in their local area).

¹⁵⁰ ESA Methodological Guidelines, 2014

¹⁵¹ Survey of the Afghan People 2015, The Asia Foundation



The optimal use of employment potential (over-qualification),

In 2013, 51% of the respondents said that they were employed¹⁵². The definition of “employed” used in the survey is “being paid for work.” The figure below shows the distribution of employment categories among those respondents. Forty-five percent of those who are employed work in agriculture, either as farmers (36%) or farm labourers (9%). The next largest employment categories are skilled workers/artisans (10%) and informal sales/business (9%).

Eighty-seven percent of those under the age of 35 are employed, and 91% of those between the ages of 35-54 are employed. Only 76% of those aged 55 or over are employed. These figures represent only those people who are available for employment, not those who are housewives, students, or retirees.

Eighty six percent of the women surveyed say they are housewives. Housewives may still earn some money for their families, but are generally not available for employment. For all respondents, on average 5% of all women and 79% of all men surveyed are employed, with men in rural areas being statistically more likely to be employed than men in urban areas. The overall national employment rate for men is 89% with significant regional variation.

We do not have any data on the employability of graduates from various types of vocational education and training. But there is a serious mismatch between the demand and supply of skilled labour. So far, almost all attention in the formal TVET sector has been focused on the supply side, while the demand side has been neglected. The MOE DM TVET in its planning and reporting only focuses on inputs and outputs but not on outcomes (employability of graduates): In a table summarising the projects and annual targets, five key projects designed to achieve the TVET objectives and apply this program’s strategies were identified: (1) Increase enrollment in TVET, (2) Construct and equip TVET centers, (3) Provide short-term vocational training, (4) Improve the quality of TVET, and (5) Improve the quality of TVET management¹⁵³.

¹⁵² Survey of the Afghan People 2013, The Asia Foundation

¹⁵³ NESP III, Draft

Results /Projects	Indicators	Annual Targets								
		2013	2014	2015	2016	2017	2018	2019	2020	
Improve access to quality TVET	No. of TVET students	61000	95143	129286	163429	197571	231714	265857	300,000	
	Percentage of TVET graduates employed in market		50%	55%	60%	65%	65%	65%	70%	
Project 1) Increase enrollment in TVET	No. of TVET students	female	8145	18410	28675	38940	49205	59470	69735	80,000
		male	52855	76733	100611	124489	148366	172244	196122	220,000
		total	61000	95143	129286	163429	197571	231714	265857	300,000
	No. of TVET teachers	female	524	906	1289	1671	2053	2435	2818	3,200
		male	1757	2763	3769	4775	5782	6788	7794	8,800
		total	2281	3669	5058	6446	7835	9223	10612	12,000
	No. of TVET employees	female	814	1212	1610	2008	2406	2804	3202	3,600
		male	3605	4604	5604	6603	7602	8601	9601	10,600
		total	4419	5816	7214	8611	10008	11405	12803	14,100
	No. of TVET schools	155	177	200	222	245	267	290	312	
	No. of TVET Institutes	89	91	92	94	95	97	98	100	
	No. of schools for children with disabilities	9	10	11	12	13	14	15	16	
	Project 2) Construct and equip TVET centers	No. of TVET centers with usable building	65	80	100	120	145	170	195	225
No. of TVET centers constructed per year		15	20	20	25	25	25	30	30	
No. of TVET dormitories constructed per year		2	2	2	2	2	2	2	2	
No. of TVET centers equipped		60	80	100	120	140	160	180	200	
Project 3) Provide short-term vocational training	No. of vocational trainees		5,000	5,000	5,000	5,000	5,000	5,000	5,000	
Project 4) Improve the quality of TVET	No. of TVET fields with revised curriculum	75	80	85	90	95	100	105	110	
	% of students who have access to full set of textbooks	40%	50%	55%	60%	65%	70%	75%	80%	
	Number of textbooks printed and distributed	400,000	450,000	200,000	100,000	100,000	50,000	50,000	50,000	
	No. of textbook authors who participated in capacity development	20	30	40	50	20	20	10	10	
	No. of TVET teacher trained	2,494	4,127	5,760	7,393	9,026	10,659	12,292	12,500	
Project 5) Improve the quality of TVET management	No. of TVET centers visited regularly per year	261	282	303	324	345	374	403	432	
	No. of TVET employees trained per year	120	150	180	210	240	270	300	350	

Source: National Education Strategic Plan 2015-2020 (Draft)

A World Bank paper¹⁵⁴ summarises the barriers to matching the demand and supply: The mismatch between the demand and supply of skilled labour is a result of inadequate institutional response to policy needs. Among the barriers to matching demand and supply, the critical ones are as follows:

- Absence of a robust institutional system for the sector

¹⁵⁴ WB Second Skills Development Project, 2013

The institutional system for the sector as a whole is fragmented. There are multiple ministries and other bodies involved with the management of TVET, whether formal or informal. While the Government is now trying to bring order into the system (through specific directions to the two leading Ministries of Education and Labour), the absence of a single Regulatory mechanism for the sector remains a major constraint on standardization, certification and licensing. This was anticipated in the ANDS and the NESP, which envisaged the development of a TVET strategy and plan for the medium term and setting up of a National Vocational Education and Training Board. There have been some positive developments in this regard under the ongoing Afghanistan Skills Development Project (ASDP), which was the first attempt to address skills issues systemically in Afghanistan. However, clearly more emphasis needs to be placed on the development of the system.

- Poor quality of the skills delivery system

The delivery system for skills training lacks standardized curricula, which are general and not in line with industry needs. Moreover, the lack of textbooks and reference materials for students and instructional materials for teachers, affect the quality of skills training. Practical training is either nonexistent or of poor quality due to lack of infrastructure and skilled trainers

- Absence of reliable Labour Market Information

System Labour market and industry related information is not reliable as no continuing system for collection of such information exists. The only available sources are periodic and irregular sample information collected by various agencies. Furthermore, the available information is not used for policy-making purposes on TVET or labour training. This has also led to a disconnect between the market and the skills delivery systems.

- Lack of linkage between the labour market and the TVET sector

TVET service providers in general have no mechanisms to interact with industry, or to incorporate relevant technologies into their curricula, which would make their skills delivery market relevant. A corollary of this is the absence of formalized placement activities. As a result, graduates, especially those from the formal TVET stream, find it difficult to get jobs. Reportedly, in the informal sector, rates of employment post training are high. However, it is unclear whether this refers to full employment and/or skills- relevant employment.

The barriers to matching demand and supply have been viewed from different perspectives. A survey by the USAID, lists the barriers as (i) SME awareness of TVET in the country, (ii) negative perceptions of TVET, and (iii) SME unwillingness to pay for TVET. The UNESCO sponsored Joint Sector Review of TVET identified (i) lack of coordination between Ministries, (ii) funding shortages, (iii) reforms that do not fructify on the ground, and (iv) lack of trained teachers in TVET, and others.

The figure below shows the relative distribution among Afghans responding to the question what is your main occupation? We see that 45 % indicate agriculture as their main occupation.



Remuneration

The 2014 survey¹⁵⁵ looked at the remuneration levels. Average monthly reported income was \$190 USD (10,839 Afghans; 1 USD = 57.1 Afghans) with Afghans in rural areas reporting a significantly lower household income of \$170 USD per month (9,701 Afghans) than Afghans in urban households (\$261 USD per month, or 14,903 Afghans). Afghans in rural households also reported a larger household size (10.3 people per rural household compared to 9.3 people per urban household), which affects their relative wealth. Reported income is significantly affected by region and education as well. Income increases with education level (Fig. 3.10). Those who complete high school (grade 12) report 64% more income, in average monthly earnings, compared to those who never went to school. Those who completed university have the highest average income, at \$431 USD per month.

¹⁵⁵ Survey of the Afghan People 2014, The Asia Foundation

AVERAGE INCOME BY HIGHEST EDUCATION LEVEL ACHIEVED



Women and work¹⁵⁶

VIEWS ON WOMEN WORKING OUTSIDE THE HOME

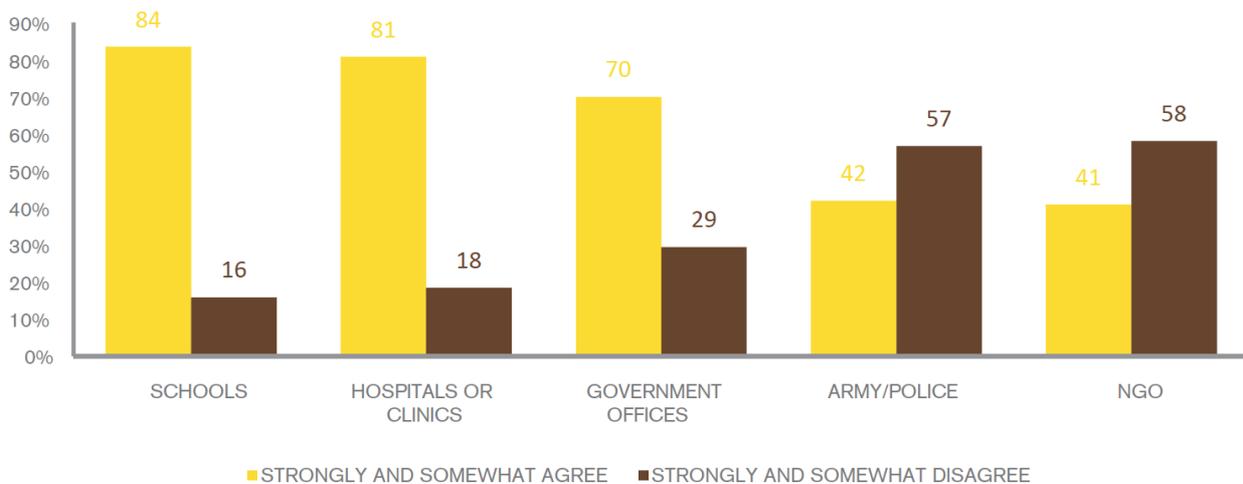
	2006	2007	2008	2009	2010	2011	2012	2013	2014
	%	%	%	%	%	%	%	%	%
WOMEN SHOULD BE ALLOWED TO WORK OUTSIDE THE HOME	70	70	69	67	64	62	66	63	68
WOMEN SHOULD NOT BE ALLOWED TO WORK OUTSIDE THE HOME	27	28	27	29	33	35	33	36	30
REFUSED	1	1	0	1	0	0	0	0	0
DON'T KNOW	2	2	4	3	3	2	2	1	2
TOTAL	100	100	100	100	100	100	100	100	100

Some people say that women should be allowed to work outside the home, while others say that women should not be allowed to work outside of the home. What is your opinion on this? While some Afghans say that women should be allowed to work outside the home, not all employment opportunities are seen as equally acceptable. In 2014, respondents were asked to evaluate the acceptability of different types of employment venues for women. Of these, schools are seen as most acceptable, with 83.6% in agreement. Among Afghans who said that women should not be allowed to work outside the home, 64.7% nonetheless still agreed that schools are acceptable.

¹⁵⁶ Ibid.

This may be because in the case of community-based schools, schools are usually located inside the home. A close second are hospitals or clinics, with 80.8% of Afghans in agreement that these are acceptable places for women to work, followed by government offices (70.0%). For employment in the police or the army, 41.9% agree that women’s participation is acceptable. Among those who agree that women should be allowed to work outside the home, 48.7% disagree (somewhat or strongly) with women’s employment in the police or army. Even less acceptable, according to Afghans surveyed, is for women to work for a non-governmental organization (NGO). A total of 40.9% of Afghans agree that working for an NGO is acceptable, while 58.1% disagree.

IS IT ACCEPTABLE FOR WOMEN TO WORK IN THE FOLLOWING PLACES?



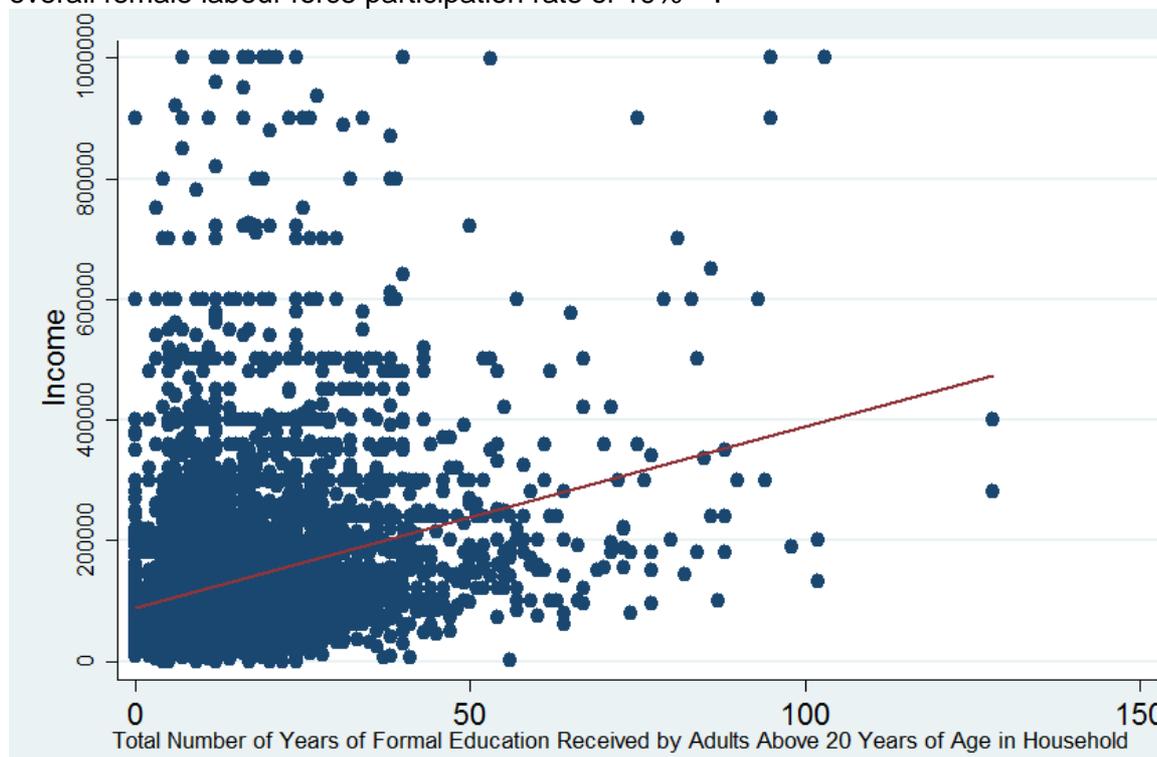
5.1.4 Economic Return of Different Education Levels

The country’s investment in education services is based on raising the productivity of society, in both economic and social aspects. It is the economic benefits gained through undertaking different levels of education, that accrue to the individual through improved lifetime income streams, to society through the higher productivity, and from a range of societal benefits and externalities. The public sector in investing in education, is seeking to achieve both economic and social benefits. Given the government’s limited financial resources, obtaining cost benefit estimates on the returns to education, is a useful tool for policy and decisions on intra-sectoral allocations and investments. These returns are specific to the country context, and dependent on the characteristics of labor market supply and demand in that location.

A cost benefit analysis will be undertaken as part of this education assessment and submitted in the final report. The methodology is based on being able to assess the returns to education (lifetime earnings) and the probability of employment. The recent CSO ALCS 2013/ 2014 will be an important data source, as it had a survey section focused on the labor market. The dataset will need to be accessed and analyzed, to obtain the income streams by education level, and employment rate. In terms of the cost of education there is the public cost, and the individuals direct costs while undertaking the course, and the opportunity cost of their time, that is the foregone income. In Afghanistan there appears to be a strong correlation between education and labor market outcomes, and this analysis will allow quantitative assessment.

An important question is whether and how much to invest in the education sector. Are there any economic gains to educating more people, or educating people more? Though there is no decisive method to answer such questions, we found some important clues in the NRVA dataset.

There was a weak correlation between the level of education attained by an individual, and whether or not they are employed in the service sector such as health, education, and NGOs (correlation coefficient = 0.34). The average individual, who was employed in the service sector had 10.6 years of formal education. Thus, it is possible that people with higher education find it easier to shift from agriculture and blue-collar jobs to white-collar jobs. Women with tertiary education were also found to have a labour force participation rate of 78%, as compared to an overall female labour force participation rate of 19%¹⁵⁷.



We looked at the NRVA dataset to find the relationship between educational attainment and economic status. We calculated the correlation between the income of the household, and the total number of years of formal education adults above 20 years of age had received in the household. We found that there was a weak positive correlation (correlation coefficient = 0.29) as can be seen in the scatterplot above. In addition, a regression of the household income against the number of years of formal education showed that the relationship is significant at the 1% level. About 10% of the variation ($R^2=0.10$) in the household income was determined by this factor alone. The correlation between the total income in the household and the maximum level of education that any household member had attained was slightly weaker (correlation coefficient = 0.24)¹⁵⁸.

Of course, education alone does not determine the income of a household. We developed a regression model, which included other factors, which could potentially determine the income of a household. (See Household model in Annex)

5.1.5 The Training-Employment Balance (Macro Approach)

The alignment (or misalignment) of the supply and demand of work is generally illustrated by a country's employment and unemployment levels. The tool most commonly used for the macro

¹⁵⁷ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

¹⁵⁸ National Risk and Vulnerability Assessment 2011-12, Afghanistan Living Condition Survey, Central Statistics Organization, 2014

evaluation of this alignment is the training employment balance sheet. To use this, the following information is required: The number and distribution of jobs for two given time-periods and the average schooling profile over the period. These data, however, were not available.

5.1.6 Anticipation of Future Labour Market Needs

We compared the trends in the labour market between 2008 [6] and 2012 [5] by comparing the data from the NRVA surveys from those years. The results are shown in the two tables below:

% of Employed Population 2008 (By Sex)	Urban			Rural			Kuchi			National		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Day labourers	14	3	12	22	1	14	14	1	9	20	1	14
Salaried workers	29	27	29	8	2	6	2	0	1	12	3	9
Employers	0	0	0	1	0	1	0	0	0	1	0	0
Own account workers	54	31	50	57	20	43	62	15	44	56	20	44
Unpaid family workers	3	39	9	12	77	36	22	84	46	11	75	33
Total	100	100	100	100	100	100	100	100	100	100	100	100
Vulnerable employment	71	73	71	91	98	94	98	100	99	88	96	91

% of Employed Population 2012 (By Sex)	Urban			Rural			Kuchi			National		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Day labourer	14	8	13	26	5	22	26	6	20	23	6	20
Salaried worker (private)	18	10	17	6	3	5	5	0	3	9	4	8
Salaried worker (public)	19	40	22	9	3	8	1	0	0	11	9	11
Employer	2	1	2	1	0	1	1	0	0	1	0	1
Own-account worker	41	28	39	50	44	49	54	54	54	48	42	47
Unpaid family worker	6	14	7	8	45	14	14	40	21	8	39	13
Total	100	100	100	100	100	100	100	100	100	100	100	100
Vulnerable employment	61	49	59	84	94	86	94	100	96	79	87	81

Note: NRVA 2009 uses a different definition of working-age (16 years and above) as opposed to NRVA 2013 (14 years and above).

The data we have does not give us an accurate sense of the demand in the labour market. Nevertheless, we can compare the changes in the different types of jobs the population was engaged in to get a sense of what we can expect in the coming years. The share of unpaid family worker has decreased by more than half, except for urban males. 6% of urban males in 2012 as opposed to 3% in 2008 engaged in unpaid family work. The share of female own-account workers has increased about twofold, and the share of male own-account workers has decreased overall. The portion of female Kuchi workers engaged in own-account work has increased almost 4 times. In urban areas, the number has decreased for both males and females. There is an increase in the percentage of urban, rural, and Kuchi day labourers of both sexes. The share of salaried workers has increased overall. Nationally, the share of female workers engaged in Salaried work has

increased 4 times from 3% to 12%. Overall, there is a growth in paid and formal work, particularly for females. Should this trend continue, more of the workforce (particularly females) will need higher levels of education to contribute efficiently to the economy.

SECTION 2: THE SOCIAL IMPACT OF EDUCATION

While economists have long recognised and measured the lifetime benefits of education from improved learning opportunities¹⁵⁹, it is only recently that they have begun to study the effects of education on other personal and social outcomes. The evidence from these studies suggests that the social returns to education are substantial and justify significant public subsidization of this activity, as the implied social benefits from the impact of education can be sizeable.

A growing body of evidence¹⁶⁰ suggests that education can reduce crime, improve health, lower mortality, and increase political participation. In a summary of the empirical evidence:¹⁶¹ the following approximate estimates of the social rate of return to education was cited: Dynamic effects on economic growth were 1%-2%, the effect on knowledge spillovers were 1%-2%, non-market benefits were estimated at 3%-4%, while tax and transfer effects were 2% adding up to total benefits in the range of 7%-10%. These studies suggest that the social return to education is similar to the private economic returns associated with higher lifetime earnings, which are also in the range of 7-10 percent.

5.2.1. The Choice of Social Development Variables

As shown above, education in addition to its individual economic benefits has positive non-economic externalities, as a factor of change in individuals' social behaviour. These effects can include aspects as diverse as health, reproductive behaviour, high-risk behaviour, or civic attitudes. The different effects can be evaluated at the household level according to four key dimensions: (i) the promotion of health; (ii) the control of fertility; (iii) civic commitment; and (vi) living conditions.

In Afghanistan there are few studies on the social benefits of education. AMICS, however, has made it possible to look at some of the correlations between levels of education and a number of selected effects on women's health, marriage age, child mortality, place of birth delivery and nutritional status of children.

5.2.2 Estimation of the Net Effects of Education

Health

There is substantial evidence¹⁶² suggesting that educational attainment improves health. It estimates that an additional year of high school improves self-reported health outcomes by 15-30%

¹⁵⁹ Card, David (1999) "The Causal Effect of Education on Earnings", in Ashenfelter, O and D Card (eds), *Handbook of Labour Economics*, Vol. 3, Part A, 1801-1863.; Heckman, James J, Lance Lochner, and Petra Todd (2008) "Earnings Functions and Rates of Return," *Journal of Human Capital*, 2(1):1-31.

¹⁶⁰ Lochner 2011: Lochner, Lance (2011) "[Non-Production Benefits of Education: Crime, Health, and Good Citizenship](#)," in Hanushek, E, S Machin, and L Woessmann (eds), *Handbook of the Economics of Education*, Vol. 4, Ch. 2, Amsterdam: Elsevier Science.

¹⁶¹ W.Craig Riddell: The Social Benefits of Education: New Evidence on an Old Question, www.economics.ubc.ca/.../pptx_pressie-craig-riddell

¹⁶² Mazumder, Bhashkar (2008) "Does Education Improve Health? A Reexamination of the Evidence from Compulsory Schooling Laws", *Economic Perspectives*, 2-16.; and Oreopoulos, Philip (2006) "Estimating Average and Local Average Treatment Effects of Education when Compulsory Schooling Laws Really Matter," *American Economic Review*, 96(1):152-175.

in the US, while European-based studies¹⁶³ typically estimate slightly more modest impacts. We found the same pattern in Afghanistan. In Afghanistan AMICS have reported on the effects of education on health and hygiene, use of sanitation facilities, infant mortality and nutritional status of children. In all cases, the impact of increased educational levels has proven to be high.

Social Effect/Benefit	Education Level	
	None	Secondary or higher
Health and Hygiene:		
Designated Place for Handwashing	55	76
Availability of soap and water	68	79
Infant and child mortality		
Infant mortality rate	74	55
Child mortality rate	103	73

Use and sharing of sanitation facilities

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Afghanistan, 2010-2011														
Region	Users of improved sanitation facilities					Users of unimproved sanitation facilities					Open defecation (no facility, bush, field)	Total	Number of household members	
	Not shared ¹	Public facility	Shared by		Missing/DK	Not shared	Public facility	Shared by		Missing/DK				
			5 households or less	More than 5 households				5 households or less	More than 5 households					
Region														
Central	27.4	1.4	5.5	1.4	0.0	52.4	2.4	7.0	1.6	0.0	0.9	100.0	16,232	
Central Highlands	18.1	1.2	0.9	0.1	0.0	24.5	3.9	0.5	0.5	0.0	50.2	100.0	3,449	
East	39.6	0.3	2.0	0.2	0.0	27.7	0.5	1.9	0.3	0.0	27.5	100.0	11,335	
North	34.6	0.2	0.3	0.2	0.0	46.7	0.5	1.7	0.4	0.0	15.5	100.0	14,055	
North East	16.5	0.4	1.5	0.5	0.1	71.0	1.3	4.5	1.0	0.1	3.1	100.0	16,557	
South	29.1	0.4	0.3	0.6	0.0	44.7	0.7	0.1	0.3	0.0	23.7	100.0	13,825	
South East	29.0	0.7	1.3	0.0	0.0	44.5	0.6	1.2	0.6	0.0	22.1	100.0	12,867	
West	30.1	0.2	2.6	0.2	0.0	30.8	0.8	3.9	0.3	0.1	31.1	100.0	13,393	
Residence														
Urban	51.2	1.5	6.1	1.7	0.1	29.5	2.0	5.9	1.4	0.1	0.6	100.0	18,000	
Rural	23.6	0.3	1.1	0.2	0.0	49.6	0.9	2.3	0.5	0.0	21.3	100.0	83,713	
Education of household head														
None	25.6	0.4	1.4	0.3	0.0	46.6	1.2	2.7	0.6	0.0	21.3	100.0	69,034	
Primary	24.1	0.6	3.2	0.9	0.0	50.5	0.8	4.6	1.0	0.0	14.3	100.0	11,529	
Secondary +	40.2	1.0	3.4	0.7	0.1	42.0	0.9	3.1	0.8	0.0	7.8	100.0	21,099	
Wealth index quintile														
Poorest	7.9	0.2	0.3	0.0	0.0	31.6	1.2	1.1	0.3	0.0	57.3	100.0	20,338	
Second	18.5	0.3	0.9	0.2	0.0	57.0	1.2	2.6	0.4	0.0	18.9	100.0	20,340	
Middle	27.2	0.3	0.9	0.0	0.0	57.6	1.1	2.7	0.7	0.0	9.6	100.0	20,344	
Fourth	35.0	0.5	2.3	0.5	0.0	53.7	1.0	3.7	0.9	0.0	2.4	100.0	20,345	
Richest	53.6	1.4	5.5	1.6	0.1	30.4	1.2	4.8	1.2	0.1	0.2	100.0	20,347	
Total	28.5	0.5	2.0	0.5	0.0	46.1	1.1	3.0	0.7	0.0	17.7	100.0	101,713	

The use and sharing of sanitation facilities is correlated with wealth index quintiles. A correlation is also found with the education level of the head of household. For instance, the greatest proportion of households with access to an improved water source are those where the head of household has attained secondary level education or higher (40%). Also, open defecation is common among the poorest households: 21 % of those with no education against 8 % of those with secondary or higher.

¹⁶³ E.G. Clark, Damon and Heather Royer (2010) "The Effect of Education on Adult Health and Mortality: Evidence from Britain", Working Paper. Kemptner, Daniel, Hendrik Jurges, and Steffen Reinhold (2010) "Changes in Compulsory Schooling and the Causal Effect of Education on Health: Evidence from Germany," Working paper 10200, Mannheim Research Institute for the Economics of Aging (MEA), University of Mannheim.; Silles, Mary A (2009) "The Causal Effect of Education on Health: Evidence from the United Kingdom," *Economics of Education Review*, 28:122-128.

Nutritional status of children

Almost one in three children under age five in Afghanistan are moderately or severely underweight (31%). More than a half of children (55%) are moderately or severely stunted or too short for their age, and 18% are moderately or severely wasted or too thin for their height (AMICS Table 5.1).

If we correlate with education levels, we find that there is a strong correlation between the Nutritional status of children and their mother's education. The proportion of moderately or severely underweight is 32 % for mothers with no education and 22 % for mothers with secondary education. The percentage of stunted is 56 % for mothers with no education and 43 % for educated mothers. Percentage of children "wasted" or too thin for their height is 18 % for mothers with no education and 11 % for educated mothers.

Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Afghanistan, 2010-2011													
	Weight for age			Number of children under age 5	Height for age			Number of children under age 5	Weight for height			Number of children under age 5	
	Underweight		Mean Z-Score (SD)		Stunted		Mean Z-Score (SD)		Wasted		Overweight		Mean Z-Score (SD)
	percent below -2 SD ¹	percent below -3 SD ²			percent below -2 SD ³	percent below -3 SD ⁴			percent below -2 SD ⁵	percent below -3 SD ⁶			
Mother's education													
None	31.9	18.0	-1.1	11,976	56.0	39.1	-2.0	11,348	18.4	11.8	21.0	0.4	11,085
Primary	26.6	14.7	-0.9	657	47.4	30.6	-1.7	629	12.3	8.0	16.1	0.5	616
Secondary +	22.0	11.6	-0.7	583	42.8	24.4	-1.4	560	11.4	6.0	16.6	0.3	544
Total	31.2	17.6	-1.1	13,220	55.0	38.0	-2.0	12,544	17.8	11.3	20.6	0.4	12,246

Source AMICS

Fertility

Social Effect/Benefit	Education Level	
	None	Secondary or higher
Woman's age of marriage:		
Before 15	17	5
Before 18	48	26
Percentage of women aged 15-49 in polygamous marriages	8	4
Percentage of women who had a live birth before age 18	29	8
Birth place of delivery		
Home	69	25
Health facility	29	74

Percentage of women age 15-49 years who first married before their 15th birthday, percentages of women age 20-49 years who first married before their 15th and 18th birthdays, percentage of women age 15-19 years currently married, and the percentage of women currently married who are in a polygamous marriage, Afghanistan, 2010-2011									
	Percentage married before age 15 ¹	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 ²	Number of women age 20-49 years	Percentage of women 15-19 years currently married ³	Number of women age 15-19 years	Percentage of women age 15-49 years in polygamous marriage ⁴	Number of women age 15-49 years currently married
Education									
None	17.0	17,359	19.5	48.0	13,903	24.9	3,455	7.5	13,244

Primary	9.9	1,595	16.3	44.5	766	15.3	830	3.7	714
Secondary +	5.3	2,330	9.3	26.3	1,105	8.2	1,225	4.4	793

Civic and Social Commitment

While more educated societies tend to be more democratic, the question is whether education in itself actually improves citizenship and political engagement. Some analyses¹⁶⁴ suggest that an additional year of schooling increases voter registration and voting in the US, while European research¹⁶⁵ estimates negligible impacts on voting in the UK and Germany. More generally, education appears to increase political interest and other forms of political participation, as well as the extent to which individuals are informed about politics. As with voting, impacts on these behaviours appear to be greater in the US than in Europe.

In Afghanistan it has been difficult to find data linking levels of education to civic and social commitment. What is the connection between education and democracy on one side, and insurgency and religious extremism on the other? There are many assumptions, but few are underpinned by research evidence.

It is a widely held notion that uneducated and illiterate youth are more susceptible to fundamentalist messages than more educated youths. It is believed that some parents chose to send their children to madrasahs in Pakistan, where such values are to some extent being nurtured. It has also been argued that better coverage and provision of public education might act as a counter-balance to this type of radicalisation.

The correlation between education and democratic values is not necessarily a purely positive one. In a paper¹⁶⁶, Borhan Osman argues that not all young Afghans who obtained better education, training and skills over the past decade use their knowledge to help democracy take roots; many are actually vehemently against democracy and its essential pillar, popular elections.

Education is shown to have an effect on crime prevention and reduction. Research suggest¹⁶⁷ that increases in education would reduce both violent and property crimes and that the long-run impacts of early childhood and school-age interventions on juvenile delinquency and adult crime can be substantial for disadvantaged youth. The studies have shown that education-based interventions and policies appear to reduce crime and delinquency most among the least able, most disadvantaged.

There is also growing evidence that preschool and school interventions at early ages can reduce delinquency and crime years later; although not all programs do¹⁶⁸. Given the empirical strategies

¹⁶⁴ Dee, Thomas S (2004) "Are there Civic Returns to Education?" *Journal of Public Economics*, 88(9-10):1697-1720.; Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos (2004). "Does Education Improve Citizenship? Evidence from the United States and the United Kingdom," *Journal of Public Economics*, 88(9-10):1667-1695.

¹⁶⁵ E.g. Siedler, Thomas (2010) "Schooling and Citizenship in a Young Democracy: Evidence from Postwar Germany," *Scandinavian Journal of Economics*, 112(2):315-338.

¹⁶⁶ Afghan Youth for Democracy? Not all of them, Borhan Osman, AAN, 2014

¹⁶⁷ Machin, Stephen, Olivier Marie, and Suncica Vujic (2011) "The Crime Reducing Effect of Education," *Economic Journal*, 121(522), 463-484; Lochner, Lance and Enrico Moretti (2004) "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports," *American Economic Review*, 94(1): 155-189.

¹⁶⁸ **Lochner, L.** "The impacts of education on crime, health and mortality, and civic participation", VOX CEPR's Policy Portal, October 2011

used to estimate the impacts of schooling on crime, health, and citizenship, we know much about the impact of additional years of high school but much less about the effects of higher education. Much of the available evidence is US-based. While a number of very recent studies have begun to analyse the wider benefits of education in Europe, very few studies exploit data from developing countries where education levels are much lower.

Living conditions

What is the correlation between level of education and poverty?¹⁶⁹ The most recent ALCS it found that it is negative:

“As shown in the table below the household head’s literacy and educational attainment level strongly correlate with poverty. Poverty rates are highest for people in households headed by an illiterate individual (46 percent), and poverty rates decrease steadily as the household head acquires more education. People living in households headed by individual with ‘No education’ are 1.5 to almost 3.5 times more likely to be poor than individuals living in households headed by someone with education above primary school. In line with the findings from NRVA 2011-12 (CSO 2014), even partial schooling at the primary level is enough to substantially reduce the likelihood of being poor.”

Poverty headcount, share of poor and total population, by selected household head education (in percentages)

Household head's education characteristics	Poverty rate	Share of poor	Share of population
Literacy			
Illiterate	46.1	72.9	69.9
Literate	27.8	27.1	38.0
Educational attainment			
No education	45.0	81.0	70.5
Incomplete primary school (less than grade 5)	29.8	1.2	1.6
Completed primary school (grade 5 or higher)	30.2	6.4	8.4
Completed lower secondary school	28.2	3.2	4.5
Completed upper secondary school	22.9	5.1	8.7
Teacher college completed	22.6	1.3	2.3
University/technical college/ post graduate	13.2	1.2	3.6
Attended or completed Islamic school	45.5	0.4	0.4

a Excludes Helmand and Khost provinces. All the estimates are based on imputed poverty rates.

What is the correlation between female education and social benefits? According to Wikipedia,¹⁷⁰ women's education leads to significant social development. Some of the most notable social

¹⁶⁹ ALCS 2015, Draft version

¹⁷⁰ Wikipedia: Socioeconomic impact of female education

benefits include decreased fertility rates and lower infant mortality rates, and lower maternal mortality rates. Closing the gender gap in education also increases gender equality, which is considered important both in itself and because it ensures equal rights and opportunities for people regardless of gender. Women's education has cognitive benefits for women as well. Improved cognitive abilities increase the quality of life for women and also lead to other benefits. One example of this is the fact that educated women are better able to make decisions related to health, both for themselves and their children. Cognitive abilities also translate to increased political participation among women. Educated women are more likely to engage in civic participation and attend political meetings, and there are several instances in which educated women in the developing world were able to secure benefits for themselves through political movements. Evidence also points to an increased likelihood of democratic governance in countries with well-educated women.

There are also benefits relating to the woman's role in the household. Educated women have been found to experience less domestic violence, regardless of other social status indicators like employment status. Women with an education are also more involved in the decision-making process of the family and report making more decisions over a given time period. In particular, these benefits extend to economic decisions. Besides the intrinsic value of increasing a woman's agency, having women play a more active role in the family also brings about social benefits for family members. In a household where the mother is educated, children and especially girls are more likely to attend school. See below the effect of an educated mother on children's participation in ECD programmes. In households where a mother is not educated, adult literacy programs can indirectly help to teach mothers the value of education and encourage them to send their children to school. There are also a number of other benefits for children associated with having an educated mother over an educated father, including higher survival rates and better nutrition (see above under "health").

Social Effect/Benefit	Education Level	
	None	Secondary or higher
ECD		
% Children attending organised early childhood education programmes	0.7	9.4

5.2.3 Consolidation of the Net Social Effect of Education

This section discusses the question whether it is possible to use cost-efficiency ratios for policy analysis and for guiding the intra-sectorial allocations to education?

In conclusion of this section on social impact of education, it would have been helpful to summarise the results obtained for each of the four dimensions studied (health, the control of fertility, civic commitment and living conditions) and compute the cost-efficiency ratios for each level of education. Such an analysis could have provided education sector decision makers with helpful information to guide the intra-sectorial allocation of resources to optimise the social benefit of education. Unfortunately, our data and information does not lend itself to such a rigorous analysis.

As a substitute, we have found some evidence on the internal rates of return to educational investment from India¹⁷¹. This analysis seeks to throw some light on the relative impact of different

¹⁷¹ Richard K. Caputo: Policy Analysis for Social Workers; Sage, 2014

levels of schooling by the percentage of their internal rate of return. The internal rates of return are highest for primary schooling (16.8) closely followed by literacy (15.9) and then middle level (13.7) and higher. The policy implications from these data suggest that significant resources should be allocated to the lower levels of education.

Table 6.1 Internal Rates of Return to Educational Investment

Marginal Internal Rates of Return to Increment of Schooling	
Increment of schooling	Percent internal rate of return
Literate over illiterate	15.9
Primary over literate	17.0
Middle over primary	11.8
Matriculates over middle	10.2
Bachelor over matriculation	7.0
Engineering degree over matriculation	9.8
Engineering degree over Bachelor	9.7
Average Internal Rates of Return to Levels of Schooling Relative to Illiteracy Studies	
Level of schooling	Percent internal rate of return
Literacy	15.9
Primary	16.8
Middle	13.7
Bachelor	8.9
Engineering	9.6

Source: Gounden, A.M.N. "Investment in education in India." Originally published in the *Journal of Human Resources* 2.3 (Summer 1967): 347-358. © 1967 by the Board of Regents of the University of Wisconsin System. Reproduced by the permission of the University of Wisconsin Press.

DRAFT

CHAPTER 6

EQUITY

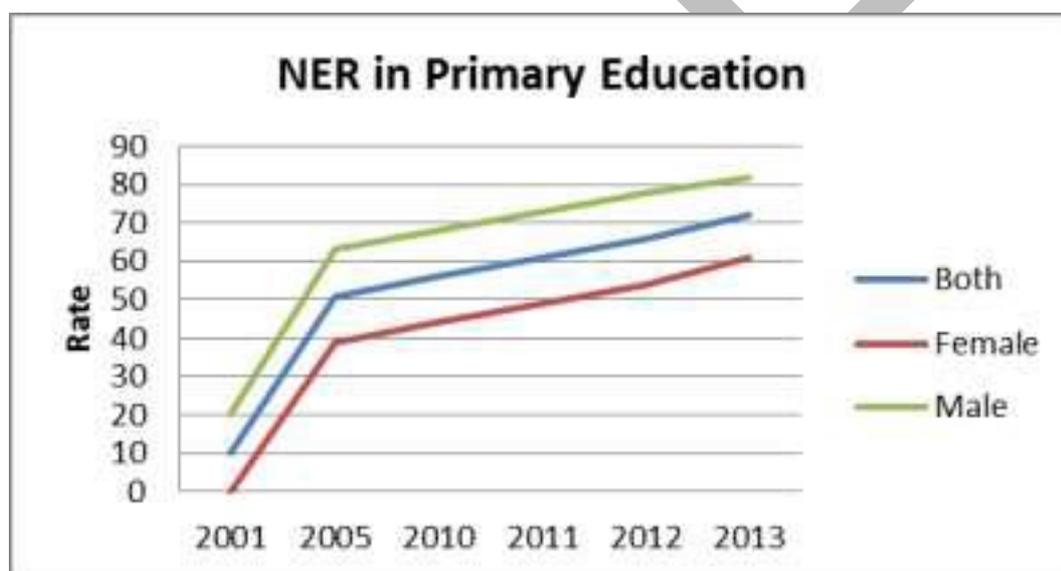
Introduction

Equity in education looks at the proportional access to, and benefits from, educational services by socially distinct groups. The issue of equity can be examined from, e.g. the lenses of gender, geography, language and ethnicity. The Ministry of Education has set the target to increase gender parity in primary education to 1, in lower secondary to 0.8, and in upper secondary to 0.7 by 2020¹⁷².

SECTION 1: EQUITY IN ENROLMENT AND LEARNING ACHIEVEMENTS

6.1.1 The Absolute Gap in Performance between the Two Groups

Net enrolment rates in primary education have shown a steady increase from 1380 (2001) to 1394 (2013) and the gender gap has shown a small decline from about 24 % to 22%. As shown in the table below, the absolute gender gap increases by grade: from 18,5 % at grade 1 to 23,7 % at grade 12.



Source EFA 2015 Review

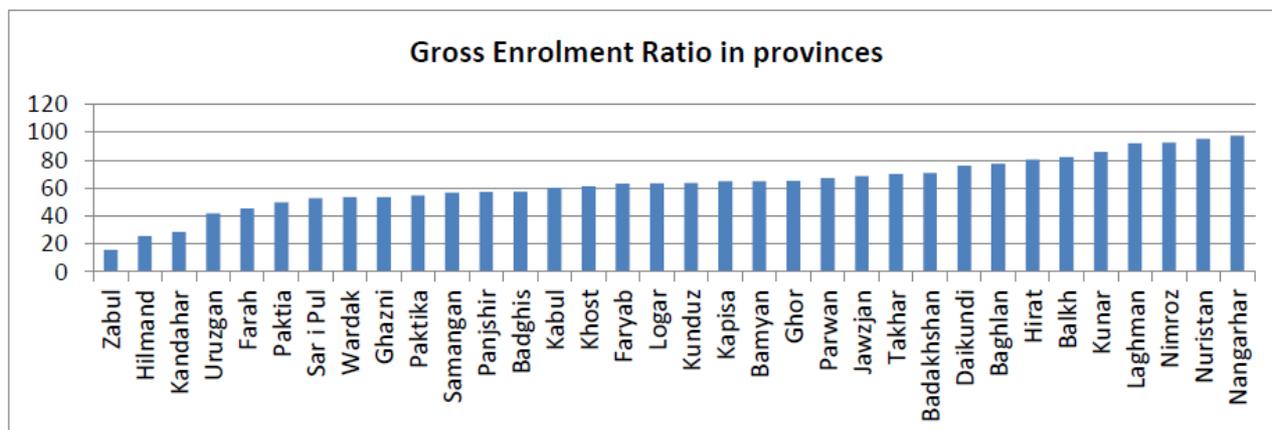
Absolute Gap: Cumulative gender disparities in access to general Education grades 1,6 &12 and grade 12 graduation rates in year 1393 (2014)

	M	F	T	M	F	Gap
				%	%	
Grade 1	663.848	456.200	1.120.048	59,27%	40,73%	18,54%
Grade 6	450.889	285.414	736.303	61,24%	38,76%	22,47%
Grade 12	185.167	114.158	299.325	61,86%	38,14%	23,72%
Gr12 Graduates	179.639	110.811	290.450	61,85%	38,15%	23,70%

¹⁷² Education Joint Sector Review 2013, Ministry of Education, Islamic Republic of Afghanistan, December 2013

Source: EMIS 1393

In addition to the gender gap there is a large gross enrolment gap between provinces: from less than 20% in Zabul, the province with the lowest performance, to 80% and above¹⁷³ in the best performing provinces.



Source EFA 2015 Review

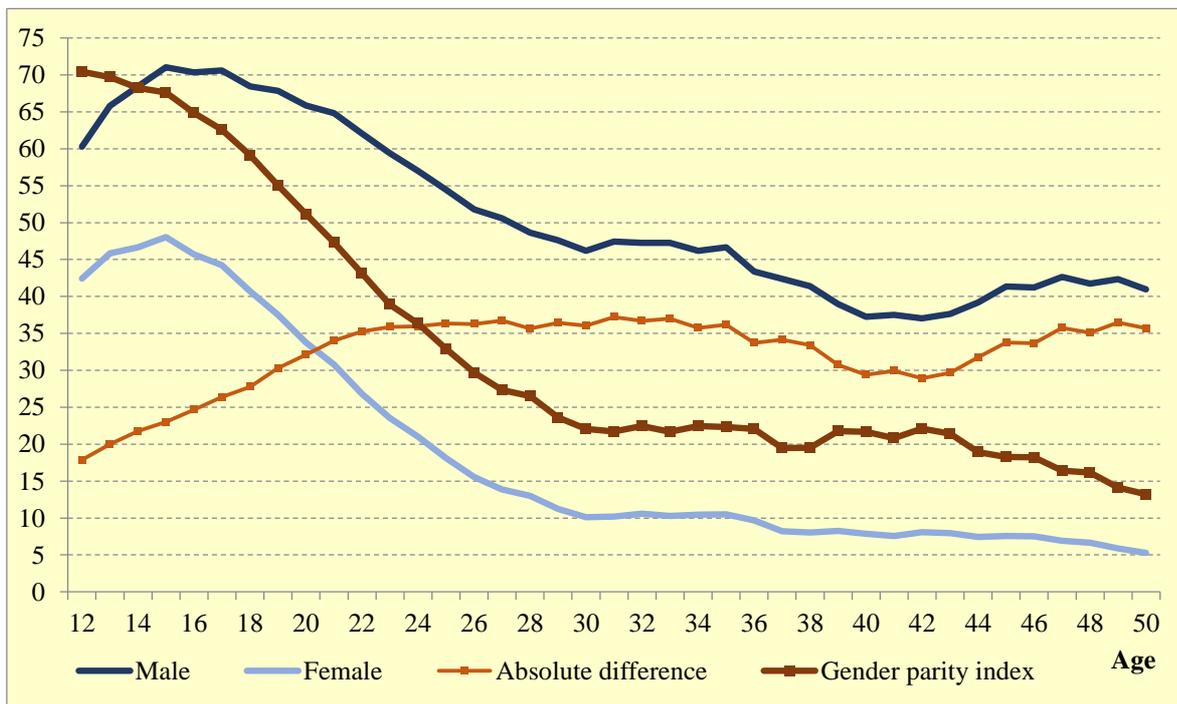
6.1.2 The Parity Index

The changes in educational opportunities since 2001 directly affected the gender equity indicators. Although both girls and boys benefitted from improved access to school, the relative impact for girls was much greater. As can be seen in the gender parity index figure on the following page, the ratio of female-to-male literacy – sharply increases from just over 20 percent for persons around 30 years old (who were too old to effectively benefit from the change in 2001) to 70 percent for children around age 12. This figure indicates that at this age the share of girls that is able to read and write is 70 percent of the share of boys that is able to do so. In absolute terms, the gap between the male and female literacy rates is fairly stable around 36 percentage points from older ages up to around age 23 (except for the age group 36 to 37, where the gap is somewhat smaller). At this age, also the absolute gap starts to decrease from 35 to below 18 percentage points around age 12. This age-based assessment confirms that literacy for the younger generations in Afghanistan has improved, and that, relatively, girls benefitted more than boys and have begun to catch up with them. Probably, in no previous generation has the gender gap for literacy been so small.¹⁷⁴

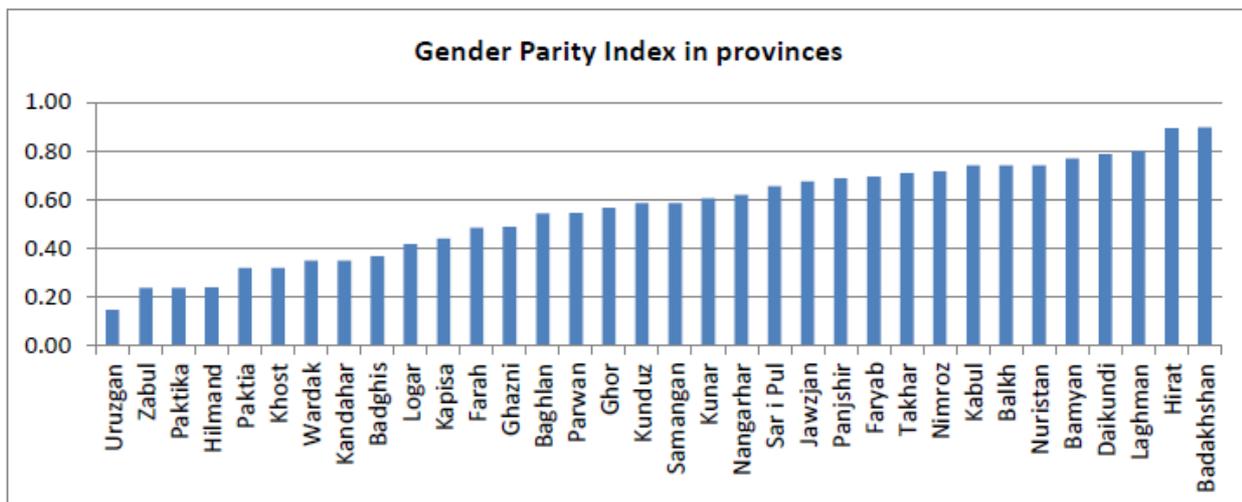
¹⁷³ We have reason to believe that the GER figures in the highest performing provinces may be inflated.

¹⁷⁴ Based on ALCS 2015, CSO

Literacy rate, by sex, and by age; Gender equity indicators, by age¹⁷⁵



The graph below shows the gender parity index by province based on data from 2011¹⁷⁶. While the national gender parity index is 0.65, the variation among provinces is noticeable. The figure is 0.15 in Uruzgan and 0.9 in Badakhshan and Herat.



In 2007-8, gender parity in primary education was 0.69 that in secondary education was 0.49, and that in tertiary education was 0.28. These figures increased to 0.74, 0.53, and 0.42 respectively in 2012. This indicates that the gender gap in education has been closing though not eliminated. Female literacy has gone from 29% in 2005 to 48% in 2012. Between the same years, male

¹⁷⁵ ALCS 2015, CSO

¹⁷⁶ Education Joint Sector Review 2013, op. cit.

literacy went from 43% to 64%¹⁷⁷.

Education gender parity

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Afghanistan, 2010-2011						
	Primary school adjusted net attendance ratio (NAR), girls	Primary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school adjusted NAR ¹	Secondary school adjusted net attendance ratio (NAR), girls	Secondary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school adjusted NAR ²
Region						
Central	67.4	87.6	0.77	36.0	65.8	0.55
Central Highlands	71.8	83.1	0.86	33.8	54.1	0.62
East	41.8	67.2	0.62	13.0	49.5	0.26
North	56.8	65.0	0.88	27.0	42.9	0.63
North East	51.0	65.5	0.78	23.7	40.4	0.59
South	13.5	28.6	0.47	3.0	19.0	0.16
South East	30.4	66.1	0.46	15.3	57.4	0.27
West	50.8	60.2	0.84	18.5	29.7	0.62
Residence						
Urban	72.8	82.5	0.88	48.6	61.8	0.79
Rural	40.6	58.9	0.69	14.5	38.5	0.38
Mother's education						
None	43.2	60.8	0.71	20.1	40.9	0.49
Primary	79.7	88.8	0.90	49.6	67.1	0.74
Secondary +	90.6	93.7	0.97	79.0	83.5	0.95
Wealth index quintile						
Poorest	30.1	48.3	0.62	5.5	24.0	0.23
Second	37.5	55.2	0.68	10.9	32.6	0.33
Middle	39.4	59.8	0.66	13.8	37.8	0.36
Fourth	52.5	69.5	0.76	22.6	50.9	0.44
Richest	72.8	84.8	0.86	46.3	64.9	0.71
Total	46.4	62.9	0.74	21.1	42.8	0.49
¹ MICS indicator 7.9; MDG indicator 3.1; ² MICS indicator 7.10; MDG indicator 3.1						

The ratio of girls to boys attending primary and secondary education is provided in Table 10.8. These ratios are better known as the Gender Parity Index (GPI). Note that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios¹⁷⁸. Table 10.8 shows that gender parity for primary school is 0.74, indicating a difference in the primary school attendance between girls and boys, with 74 girls attending primary school for every 100 boys. The indicator drops significantly by the secondary level, to 0.49. The disadvantage to girls is particularly pronounced in the Southern region (0.47 for primary education and 0.16 for secondary education), as well as among children living in the poorest households (0.62 for primary education and 0.23 for secondary education) and in rural areas (0.69 for primary education and 0.39 for secondary education).

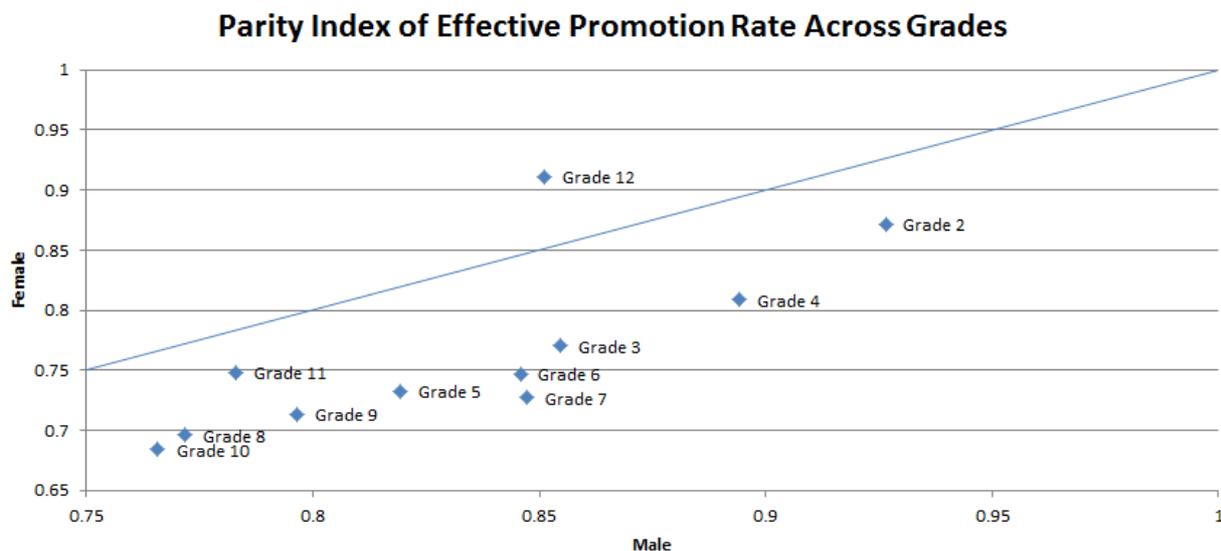
6.1.3 The Parity Line

The following parity index was calculated for 2014 based on the effective promotion rates for each grade. We can see that parity has yet to be achieved, particularly in the upper-primary, lower-

¹⁷⁷ Afghanistan National Education for All (EFA) Review Report 2015, Ministry of Education, Islamic Republic of Afghanistan, June 2014

¹⁷⁸ The last ratios provide an erroneous description of the GPI mainly because in most of the cases, the majority of over-aged children attending primary education tend to be boys

secondary grades.



6.1.4 Scatter Charts

Please refer to the charts under 6.1.3 and 6.1.7, where scatter plots or scatter graphs were applied.

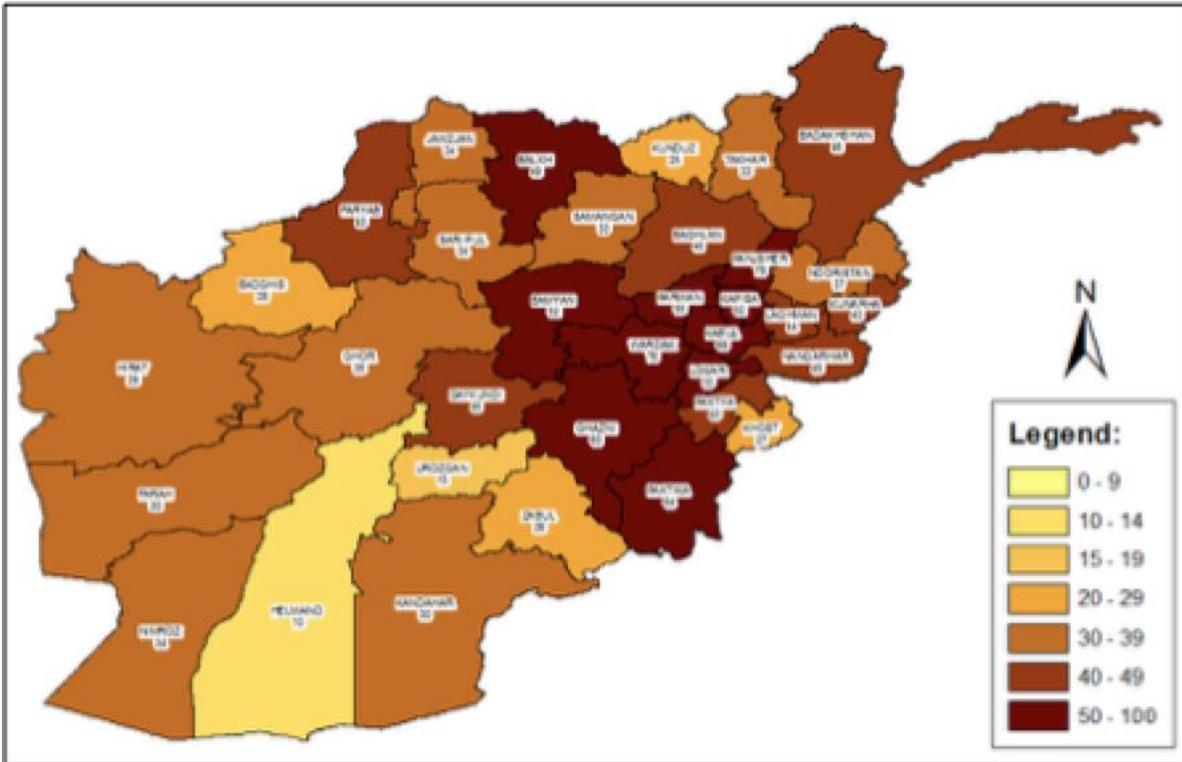
6.1.5 Maps

The maps on the following page illustrates the stark differences in adult literacy rate, by province and by sex (in percentages)¹⁷⁹:

6.1.6 Social mobility tables

We do not have any data on the social mobility of the Afghan population. The changes in literacy level between ages, however, may serve as a proxy for the changes in social opportunities over time (see 6.1.2 the parity index on literacy levels).

¹⁷⁹ ALCS 2015, CSO



Male



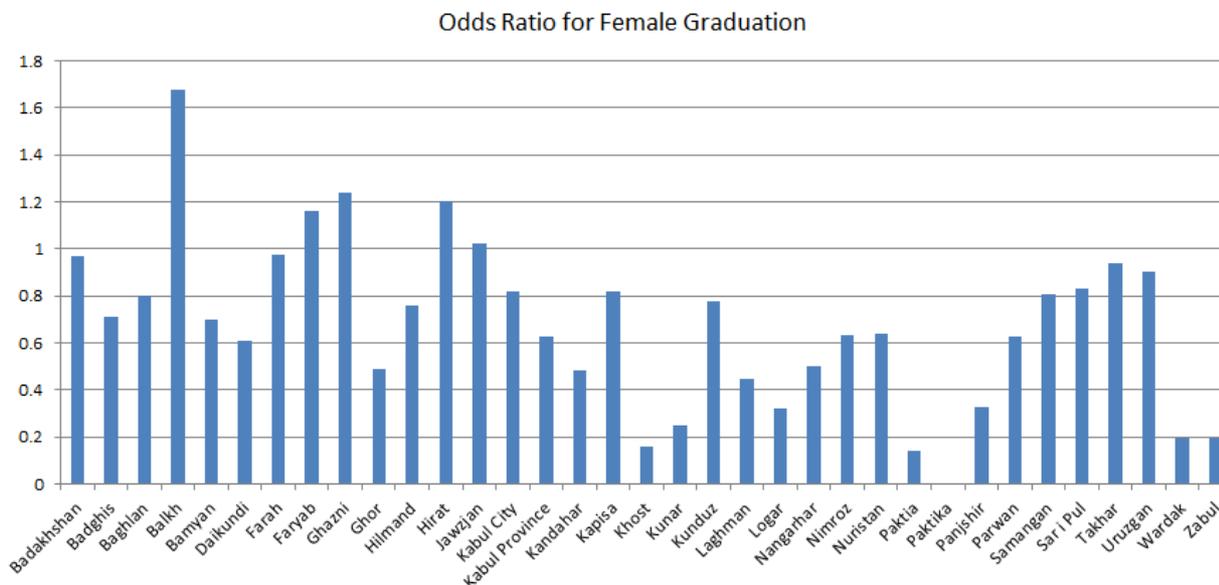
Female

6.1.7 Odds ratios

We calculated the odds of graduating for female students compared to male students for each province using the projected 2014 data from EMIS. [3] We used the following formula:

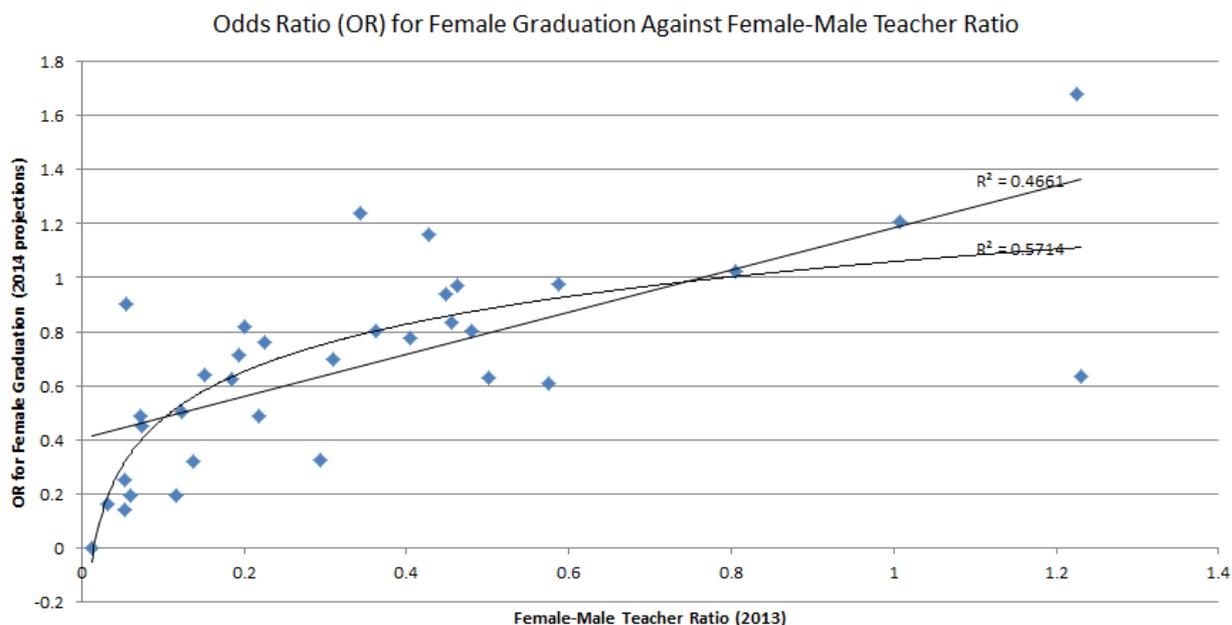
$$\text{Odds Ratio (OR)} = (\text{female graduates/females enrolled}) / (\text{male graduates/males enrolled})$$

The results obtained for each province is presented in the graph below:



In 21 of the 35 provinces, female students have a 20% lower probability of graduating than male students (OR is less than 0.8). In five of the provinces, female students are actually more successful in graduating than male students.

We also have data on the number of male and female teachers in 2014 which we used to calculate the female-male teacher ratio for each province. We then plotted the OR against this ratio to see if the ratio provides any clue to the odds of female graduation. We excluded Kabul City as an outlier in this analysis since the city had a female-male teacher ratio of 2.97, which was more than twice the ratio for any other province.



We found that the female-male teacher ratio is closely related to the OR ($R^2=0.47$ in the linear model and $R^2=0.57$ in the logarithmic model). A higher positive female-male teacher ratio signals a higher odds of graduation for females. If we consider the logarithmic model, the predictive capacity decreases as we move towards a higher female-male teacher ratio.

Some programs have been found to be effective in reducing the gender gap. A study gauging the effects of community based education in rural Afghanistan found that such programs were very effective in reducing the gap in enrollment between male and female students. In a village with a community based school, enrollment of girls into primary school increased about 52% compared to villages with no such schools. The gap, however, increased with age. That is, as female students get older, they find it difficult to stay enrolled. This can be attributed to cultural norms which limit females' mobility and restrict them from attending schools offering higher grades which are generally farther away¹⁸⁰.

SECTION 2: MEASURING EQUITY IN THE DISTRIBUTION OF PUBLIC RESOURCES

6.2.1 The Structural Distribution of Public Education Resources

Public expenditure on education is unevenly distributed among the provinces in Afghanistan. A study of MoE education expenditure for the period of 2011-2014¹⁸¹ showed huge disparities across provinces in terms of average expenditure per pupil. In the 2014 fiscal year, 14 provinces received above the national average of recurrent expenditure per pupil. 12 provinces received 500 AFS or more below the national average recurrent expenditure per pupil and those provinces were in a very critical situation. The remaining 9 provinces received between 0-500 AFS less than national average. In 2011 and 2012, the number of provinces in the category "critical situation" was 8, while in 2013 and 2014 that number of "critical" provinces had increased to 12. However, the number of provinces that received more than the national average fluctuated during the period: from 11 provinces in 2011 to 13 provinces in 2013 and 2014. The number of provinces that

¹⁸⁰ Bringing Education to Afghan Girls: A Randomized Controlled Trial of Village-Based Schools, Dana Burde and Leigh L. Linden, American Economic Journal: Applied Economics 2013.

¹⁸¹ Baluch Noori: *AFGHANISTAN EDUCATION EXPENDITURE ANALYSIS FROM AN EQUITY PERSPECTIVE*, Master Thesis, ATP, IIEP, 2015

received between 0-500 less than the national average also fluctuated during the period: from 15 provinces in 2011; over 8 provinces 2013, to 9 provinces in 2014. The annual variation over three years and the distribution between provinces is shown in the table below.

Provincial per pupil expenditure status 2011-2014

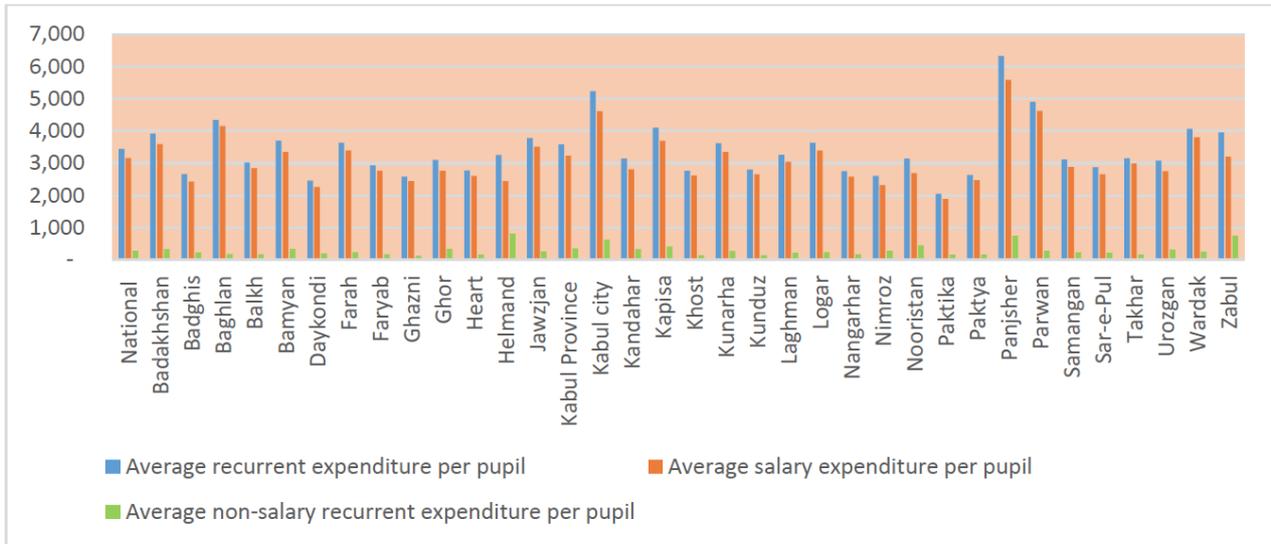
S.N	Province	2011	2012	2013	2014	Analysis
1	Badakhshan	A	B	A	A	3A 1B
2	Badghis	C	C	C	C	4C
3	Baghlan	A	A	A	A	4A
4	Balkh	B	B	B	B	4B
5	Bamyan	A	A	A	A	4A
6	Daykundi	C	C	C	C	4C
7	Farah	B	B	A	A	2B 2A
8	Faryab	B	B	C	C	2B 2C
9	Ghazni	C	C	C	C	4C
10	Ghor	C	B	C	B	2C 2B
11	Helmand	B	A	B	B	2A 2B
12	Herat	C	C	C	C	4C
13	Jawzjan	A	A	A	A	4A
14	Kabul City	A	A	A	A	4A
15	Kabul Province	B	A	A	A	3A 1B
16	Kandahar	B	B	A	B	3B 1A
17	Kapisa	A	A	A	A	4A
18	Khost	B	B	B	C	3B 1C
19	Kunar	A	A	A	A	4A
20	Kunduz	B	B	C	C	2B 2C
21	Laghman	B	B	B	B	4B
22	Logar	A	A	A	A	4A
23	Nangarhar	C	C	C	C	4C
24	Nimroz	B	C	B	C	2B 2C
25	Nooristan	B	B	B	B	4B
26	Paktika	C	C	C	C	4C
27	Paktiya	B	B	C	C	2B
28	Panjsher	A	A	A	A	4A
29	Parwan	A	A	A	A	4A
30	Samangan	B	B	B	B	4B
31	Sar-e-pul	B	B	C	C	2B 2C
32	Takhar	B	B	B	B	4B
33	Urozgan	C	C	C	B	3C 1B
34	Wardak	A	A	A	A	4A
35	Zabul	A	A	A	A	4A

A: Above the national average, B: Below national average , C: Critical situation received less than AFS

The 2014 distribution of public expenditure by province is depicted in the chart below.

2014 provincial average expenditure per pupil¹⁸²

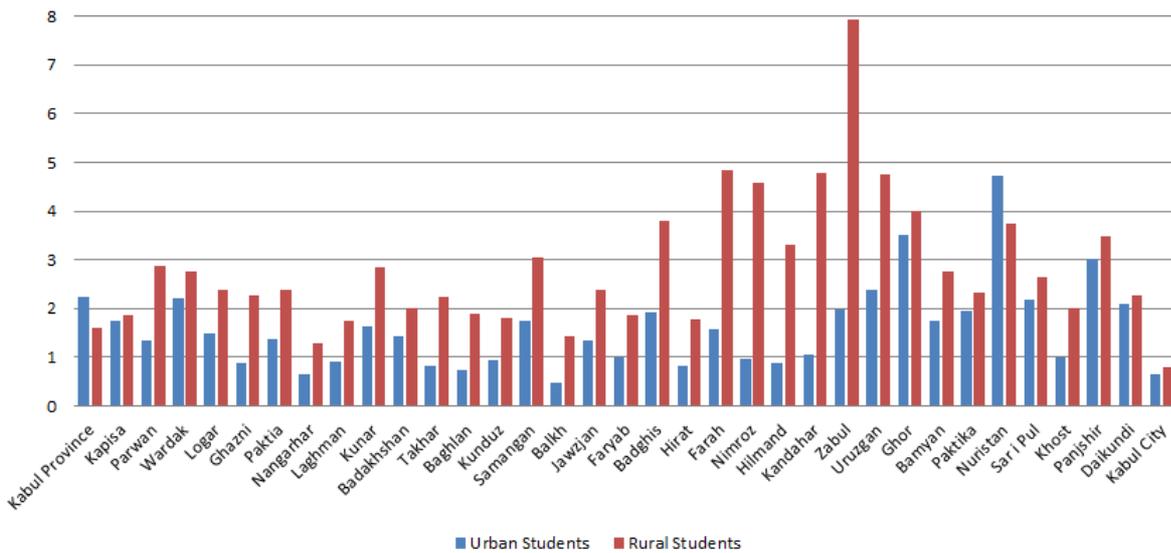
¹⁸² Baluch Noori: *AFGHANISTAN EDUCATION EXPENDITURE ANALYSIS FROM AN EQUITY PERSPECTIVE*, Master Thesis, ATP, IIEP, 2015



Source MOE AFMIS, EMIS

The number of schools per 1000 students shows huge variations between the provinces and between rural – urban locations. The ratio tends to increase with distance from urban centers.

Number of Schools per 1000 students (2014)



Using data from EMIS, we calculated the number of schools per 1000 students in the urban and rural areas of each province. We can see that there are in fact more schools per 1000 students in rural compared to urban areas in most provinces. However, this analysis only provides a limited view of access to physical educational resources. While there might be more schools available for each student in rural areas, it is also likely that the schools are farther from them. [3]

6.2.2 Distributive Equity in Public Education Expenditure: Social Disparities in the Appropriation of Education Resources and Benefit Incidence Analysis

The table below shows that only 55% of children of primary school age (7-12) attend school. Attendance in urban areas is 78% while in rural areas it is only 50%. The proportion of children attending primary or secondary school increases with the child's age up to the age of 11. Attendance starts to decrease from age 12. Primary school attendance shows significant variance

between children living in the poorest households (40% attendance) and those living in the wealthiest households (79% attendance).

Primary school attendance¹⁸³

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), <i>Afghanistan, 2010/11</i>						
	Male		Female		Total	
	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted) ¹	Number of children
Region						
Central	87.6	1,361	67.4	1,278	77.9	2,639
Central Highlands	83.1	302	71.8	312	77.4	614
East	67.2	1,221	41.8	1,040	55.5	2,261
North	65.0	1,269	56.8	1,229	60.9	2,499
North East	65.5	1,380	51.0	1,328	58.4	2,708
South	28.6	1,496	13.5	1,215	21.9	2,710
South East	66.1	1,138	30.4	857	50.8	1,996
West	60.2	1,306	50.8	1,165	55.8	2,471
Residence						
Urban	82.5	1,605	72.8	1,527	77.8	3,133
Rural	58.9	7,868	40.6	6,897	50.4	14,766
Age at beginning of school year						
7	50.8	1,913	41.4	1,824	46.2	3,737
8	55.4	1,430	48.3	1,259	52.1	2,690
9	67.9	1,878	47.8	1,639	58.5	3,516
10	66.0	1,178	48.5	924	58.3	2,102
11	72.8	1,707	50.3	1,480	62.3	3,187
12	65.7	1,367	44.3	1,298	55.3	2,665
Mother's education						
None	60.8	8,807	43.2	7,766	52.6	16,572
Primary	88.8	311	79.7	319	84.2	630
Secondary +	93.7	349	90.6	336	92.2	685
Wealth index quintile						
Poorest	48.3	2,065	30.1	1,750	40.0	3,815
Second	55.2	1,900	37.5	1,620	47.0	3,521
Middle	59.8	1,927	39.4	1,663	50.4	3,589
Fourth	69.5	1,812	52.5	1,701	61.2	3,513
Richest	84.8	1,769	72.8	1,690	79.0	3,459
Total	62.9	9,474	46.4	8,424	55.2	17,898

¹ MICS indicator 7.4; MDG indicator 2.1

Source AMICS

Secondary school net attendance ratio (NAR)

About 32% of secondary school age children attend school. Secondary school net attendance ratio (NAR) for girls (21%) is more than two times lower than that of boys (43%). The NAR of rural secondary school age children is two times lower than their counterparts in urban areas. The attendance of secondary school children living in the poorest households is about four times lower

¹⁸³ Ratios presented in this table are adjusted since they include not only primary school attendance, but also secondary school attendance in the numerator.

than their counterparts living in the wealthiest households. Regional disparities in secondary NAR are significant. Attendance in the Southern region (12%) is the lowest among all eight regions and about five times lower than attendance in the Central region (51%), where it is the highest. About one in ten (9%) children of secondary school age are attending primary school when they should be attending secondary school.

Secondary school attendance

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Afghanistan, 2010-2011									
Region	Male			Female			Total		
	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children	Net attendance ratio (adjusted) ¹	Percent attending primary school	Number of children
Region									
Central	65.8	6.6	1,272	36.0	6.6	1,337	50.5	6.6	2,609
Central Highlands	54.1	16.3	232	33.8	15.2	256	43.4	15.8	488
East	49.5	13.4	842	13.0	4.3	697	33.0	9.3	1,539
North	42.9	12.4	1,083	27.0	6.6	1,011	35.2	9.6	2,094
North East	40.4	12.6	1,177	23.7	6.2	1,256	31.8	9.3	2,433
South	19.0	3.2	1,477	3.0	1.1	1,123	12.1	2.3	2,600
South East	57.4	12.7	916	15.3	3.6	721	38.8	8.7	1,637
West	29.7	17.1	989	18.5	13.8	943	24.2	15.5	1,932
Residence									
Urban	61.8	8.9	1,469	48.6	5.8	1,407	55.3	7.4	2,876
Rural	38.5	11.0	6,519	14.5	6.6	5,937	27.1	8.9	12,456
Age at beginning of school year									
13	35.3	28.6	1,308	24.0	15.3	1,482	29.3	21.5	2,790
14	42.8	17.6	1,480	22.5	9.8	1,103	34.2	14.2	2,582
15	48.4	7.6	1,485	24.0	4.6	1,317	36.9	6.2	2,802
16	47.6	4.1	979	22.1	3.2	976	34.9	3.6	1,955
17	44.0	2.4	1,799	18.0	1.7	1,590	31.8	2.1	3,390
18	36.8	2.1	938	14.2	2.1	875	25.9	2.1	1,814
Mother's education									
None	40.9	15.1	4,895	20.1	8.9	4,319	31.2	12.2	9,214
Primary	67.1	12.5	166	49.6	13.1	186	57.9	12.8	353
Secondary +	83.5	9.5	204	79.0	5.2	192	81.3	7.4	396
Cannot be determined	47.1	4.5	218	8.1	1.7	358	22.8	2.8	575
Wealth index quintile									
Poorest	24.0	11.7	1,543	5.5	5.7	1,294	15.6	9.0	2,837
Second	32.6	10.2	1,496	10.9	5.6	1,350	22.3	8.0	2,846
Middle	37.8	11.4	1,589	13.8	6.0	1,452	26.4	8.8	3,041
Fourth	50.9	10.8	1,589	22.6	8.0	1,585	36.8	9.4	3,174
Richest	64.9	9.2	1,772	46.3	6.4	1,663	55.9	7.9	3,434
Total	42.8	10.6	7,988	21.1	6.4	7,343	32.4	8.6	15,332

¹ MICS indicator 7.5

Perceptions on Women and Education

Expanded educational opportunities for girls have been a major achievement in Afghanistan's development over the past decade. However, not all Afghans agree with the principles of equal access at all levels of education. From 2006-2013, the survey asked respondents whether they agreed that women should have equal access to educational opportunities as men. The percentage, who agreed with the statement has been high, but declining, from 91.5% in 2006 to 83.2% in 2013. The 2014 survey took this question a step further. It asked Afghans about their support for women's education at specific levels and in certain arenas. The highest level of support for women's education is at the level of Islamic madrasa education (92.3%), while the lowest is for scholarships to study abroad (33.4%). The threshold of support for women's equal access to education drops below 50.0% when travel outside the province is required. Within traditional communities, women's physical proximity to the family is seen as particularly important¹⁸⁴.

Perceptions on the role of women in education and society¹⁸⁵

In 2014 the survey¹⁸⁶ asked respondents whether women should have the same educational opportunities as men at various levels and in various arenas. There is strong support for women's

¹⁸⁴ Survey of the Afghan People 2014, The Asia Foundation pp. 133 ff.

¹⁸⁵ Survey of the Afghan People 2014, The Asia Foundation (Executive Summary p.11)

¹⁸⁶ Survey of the Afghan People 2014, The Asia Foundation,

education in Islamic madrasas (92.3%), primary schools (83.9%), high schools (82.0%), and universities in their home province (71.9%), but less support for women to study in another province (45.2%) or to go abroad on a scholarship (33.4%). Around two-thirds (67.8%) of Afghans say that women should be able to work outside the home. This year, respondents were asked whether they agree or disagree that women should be able to work in a range of specific employment environments. Schools are seen as most acceptable (with 83.6% of Afghans in agreement), followed by hospitals or clinics (80.8%) and government offices (70.0%). There was much lower support for women's employment in the police or the army (41.9%) and nongovernmental organizations (NGOs) (40.9%).

Afghanistan should expand access and improve equity in education, health, and basic services to promote equal opportunity

In its October 2015 update of the NRVA it was suggested that welfare inequalities should be reduced by leveling the playing field for human development:¹⁸⁷ It was found that inequality had played a major role in diluting the poverty-reduction effect during a period of economic growth and that massive inflow of international assistance targeted to high-conflict areas had contributed to widening geographic inequalities. Moreover, investments in rural areas did not contribute to poverty reduction as the poor lacked the human capital to take advantage of better employment.

The NRVA update analysis concluded that with education and health levels among the lowest in the world, Afghanistan would need to continue expanding access and improving equity in education, health, and basic services to promote equal opportunity, inclusive job creation and broad-based growth. In particular, the country would need to reduce the educational disadvantage of poor children and girls. Afghanistan should consider strengthening demand-side interventions to improve access to secondary schools in rural areas, especially for girls, including exploring using cash transfers and scholarships. Moreover, to promote equality in human capital accumulation Afghanistan would need interventions to ensure that children receive adequate nutrition, immunization and care before reaching school age, not the least because a growing body of research shows that benefits of health and nutrition for infants can have long lasting effects that persists through life, and conversely that damages from childhood disease and malnutrition in terms of lost opportunity for learning can be difficult to undo.

¹⁸⁷ From NRVA Update Analysis, October 2015

ANNEXES

DRAFT

DRAFT

Household income model: (Chpt 5)

$$\text{LOG_HH_INCOME} = B_1 \text{ ADULT_EDU} + B_2 \text{ URBAN} + B_3 \text{ HH_SIZE} + B_4 \text{ HH_AG} + B_5 \text{ DIST_WAT} + B_6 \text{ FOOD_SQTY} + B_7 \text{ INSQTY} + B_8 \text{ AGE_MAR_HH} + C$$

, where B_i are the coefficients and i ranges from 1-8, and:

LOG_HH_INCOME is the dependent variable. It is the Logarithm of the household income. We chose to take the logarithm of the household income instead of using it directly since the distribution after taking the logarithm is closer to a normal distribution, which makes our model more accurate. This is a common practice when creating regression models that use income data.

ADULT_EDU is the total years of formal education received by adults above the age of 20 in the household. We are including only education of adults since education of children might not yet translate into economic outcomes until they begin participating in the formal labour market.

URBAN is a binary variable which is 1 if the household is an urban-household and 0 otherwise. We chose this as an independent variable since urban areas might have more economic opportunities available, impacting household income.

HH_SIZE is the number of members in the household. This serves as a proxy for various social characteristics which might affect household income such as attitudes towards fertility.

HH_AG is a binary variable which is 1 if the household head is engaged in employment related to agriculture or livestock and 0 otherwise. We chose this as a proxy to gauge the engagement of the household in agriculture. It is conceivable that agricultural households having a lower return to their hours worked.

DIST_WAT is the distance to the source of drinking water in kilometers. We chose this as a proxy for the level of development in vicinity of the household. A household living in an underdeveloped area might have higher opportunity costs to engagement in employment activities.

FOOD_SQTY is a binary variable if the household had enough to eat in the past year and 0 otherwise. Again, a household which is not food-secure might not be able to engage in meaningful income-generating activities.

INSQTY is the level of insecurity in the district with the range of 1-5 as reported by respondents. We include this independent variable in the model since insecurity can have a negative impact on economic activities.

AGE_MAR_HH is the age of marriage of the spouse of the household-head. This too is a proxy for social characteristics of the household.

C is the constant term. This denotes the (logarithm of the) income of an average household when all other variables have the value of 0.

The results of the regression analysis thus carried out is presented in the table below:

Linear regression (weighted)

Number of obs = 5831
 F(8, 5822) = 106.05
 Prob > F = 0.000
 R-squared = 0.255
 Root MSE = .655

Log of Household Income	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
Total Education***	.01	.001	7.06	0.000	.007	.013
Urban***	.36	.031	11.34	0.000	.294	.418
Household Size***	.04	.004	11.03	0.000	.036	.052
Agricultural Household***	-.26	.028	-9.31	0.000	-.32	-.209
Distance to Water Source**	-.01	.002	-2.59	0.010	-.01	-.001
Food Security***	.29	.025	11.63	0.000	.239	.337
Insecurity**	-.02	.01	-2.42	0.015	-.044	-.005
Age of Marriage (HH)***	.01	.004	3.25	0.001	.005	.021
Constant***	10.67	.085	125.18	0.000	10.518	10.853

*** means significant at 1% level
 ** means significant at 5% level
 * means significant at 10% level

We did not have data on many other relevant data available (such as household assets, health in the household, and so on), so our model explains only about 25% of the variance seen in the level of income ($R^2=0.25$). Nonetheless, we found that all the independent variables are significant (at the 5% level. In fact all variables except the level of insecurity and distance from source of drinking water were significant at the 1% level.) This means we can be more certain that these factors determine the level of household income. We saw that if the number of years of formal education received by adults above 20 years of age in a household increase by 1, it reflects a 1% change in total household income. If we were to assume that the additional education caused this increase, we can see how an investment in education can lead to economic gain a generation (20 years) later. We can also see that urban households have a 36% higher income level. Agricultural households have a 26% lower income, which highlights the need for the economy to move away from agriculture. Similarly, an average household, which had enough food the past year also had 29% higher incomes than their counterparts who are similar in all other regards but did not have enough to eat. We also see that as the level of insecurity in the district rises, the total household income decreases. Finally, if two households are exactly the same, but in one of them the age-at-first-marriage of the spouse of the household head was higher by 1 year, the household on average had 1% more income.