



Economic and Social Council

Distr.: General

21 March 2019

Original: English

Economic Commission for Africa

Africa Regional Forum on Sustainable Development

Fifth session

Marrakech, Morocco, 16–18 April 2019

Item 6 of the provisional agenda*

Parallel panel meetings for in-depth review, peer learning and dialogue on the sub-themes of the Africa Regional Forum on Sustainable Development

Background paper on ensuring inclusive and equitable quality education

Key messages

- Monitoring of the comprehensive attainment of Sustainable Development Goal 4 in Africa is limited by data availability, and greater investment in data is critical for progress
- Completion rates of educational cycles remain a serious challenge in educational systems in Africa
- There is a lack of trained teachers to match increased educational demand
- Technical and vocational education and training remains an interesting bridge between school and work and needs to be scaled up
- Equity in education remains a serious challenge
- Education budgetary allocations need to be aligned to the 2030 Agenda for Sustainable Development

I. Introduction

1. The present background paper has been prepared by the Economic Commission for Africa (ECA) with inputs from the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women).

2. In Sustainable Development Goal 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), the instrumental importance of education for economic growth and poverty reduction is recognized. Education is also important in relation to the other Goals. A host of social and non-market benefits are produced by schooling, including increased child well-being, health status, efficiency of consumer choices and social capital. In Africa, the positive spillover of schooling can also

* ECA/RFSD/2019/1.

be gauged by the fertility rates of adolescents (those aged 15 to 19 years of age), which drop with increased access to secondary school.

3. The targets and indicators of Sustainable Development Goal 4 include the following:

- Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex (indicator 4.1.1)
- By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education (target 4.2)
- Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex (indicator 4.2.1)
- Participation rate in organized learning (one year before the official primary entry age), by sex (indicator 4.2.2)
- By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university (target 4.3)
- Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex (indicator 4.3.1)
- By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship (target 4.4)
- Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill (indicator 4.4.1)
- By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations (target 4.5)
- By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy (target 4.6)
- By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (target 4.7)

4. The 10 indicators of Sustainable Development Goal 4 have two facets. First, Goal 4 not only sets an ambitious education agenda but also poses the challenge of monitoring targets that include measuring outcomes, rather than only outputs as in the previous development agenda, which is an important paradigm shift. Second, data requirements to monitor progress towards Goal 4 are a challenge for national educational and statistical agencies.

5. The present background paper provides aggregate progress in sub-Saharan Africa towards the achievement of Goal 4 and focuses on indicators that are currently available in sufficient quantity across countries within the continent. Those indicators include completion rates, trained teachers, learning outcomes, technical and vocational education and training, and equity. This will

allow for the identification of gaps and emerging issues. The mobilization of the means of implementation and key policy recommendations are discussed below.

II. Aggregate trends

6. Using the period 2013–2017 as a baseline, global initial levels for completion rates were 85 per cent for primary, 73 per cent for lower secondary and 49 per cent for upper secondary. Completion rates were used as they reflect better the attainment of skills at the end of a schooling cycle, which illustrates the shift from a focus on outputs to outcomes.

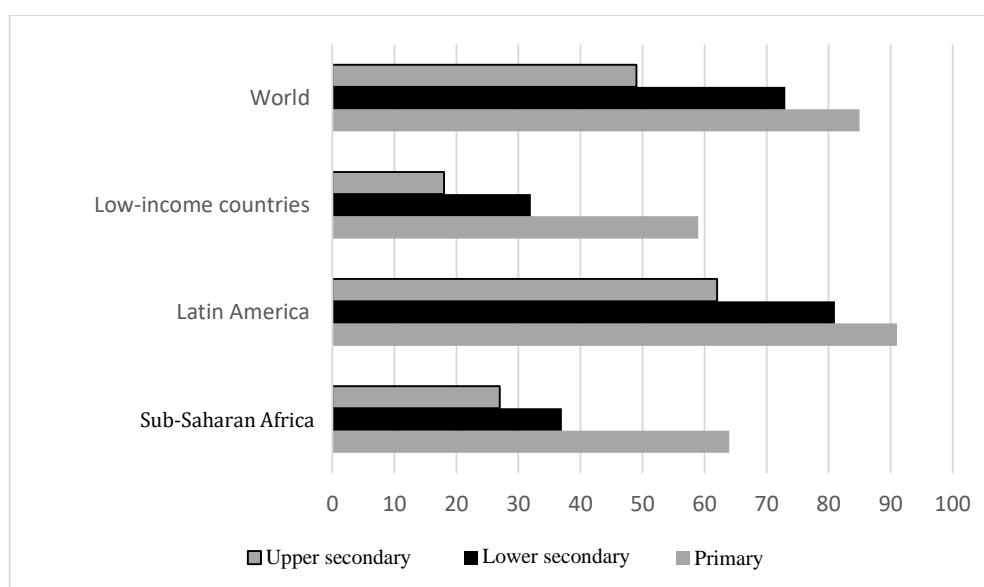
A. Completion rates

7. The figures for completion rates in primary and secondary education reflect global figures of lower completion rates at higher levels of education. Sub-Saharan Africa follows that general trend but reports much lower completion rates than in Latin America (see figure I).

8. The aggregate primary completion rates also reflect country differences both in terms of progress made from the low initial status in the 1990s and the distance from the current target. Primary school completion has broadly improved in some countries in Africa. In 2013, the following countries achieved the target of full completion in primary education: Algeria, Botswana, Egypt, Ghana, Mauritius, Morocco, Sao Tome and Principe, Seychelles and Tunisia. At the same time, two thirds of countries in Africa have yet to reach that target. Furthermore, 12 per cent of those countries were at an intermediate level (more than 80 per cent completion), and the remaining 88 per cent of countries were farther away from the target.

Figure I

Completion rates by subgroup in the period 2013–2017



Source: UNESCO Institute of Statistics Database (2019).

9. However, this masks important disparities in both the distance to be covered and the achievements realized since 1990. Benin, Malawi, Mauritania, Morocco and Togo have achieved a minimum increase of 40 per cent in primary school completion rates since 1990. Despite not having met the target, many countries – including Benin, Burkina Faso, Burundi, the Congo, the Democratic Republic of the Congo, Guinea, Madagascar, Mozambique, the Niger and Rwanda – have made tremendous progress with an increase of at least 30 per

cent. On the other hand, the Central African Republic, Chad, Mozambique and the Niger registered a completion rate for primary education that was below 50 per cent in 2013, almost equal to the average completion rate of sub-Saharan Africa in 2000.

10. The mixed progress towards completion rates across sub-Saharan Africa can be partly driven by a number of factors. The availability of textbooks remains an essential input to the improvement of the quality of education, and their availability is a requirement for completing school cycles. Several studies showed the direct and positive impact of the availability and effective use of textbooks on the learning achievements of pupils. For example, the Trace programme for the education systems of the Conference of Ministers of Education of Countries and Governments Sharing the French Language concluded that the availability of textbooks at home raised the average score of pupils by 6 per cent, while availability and use of reading and mathematics textbooks in class increased that score by 18 per cent. However, the various studies found that the average pupil-to-textbook ratio was particularly low in sub-Saharan Africa. The Trace programme estimated the average ratio at one book per three pupils in 2012. The UNESCO Institute of Statistics in 2012 estimated that the median availability of textbooks in reading and mathematics was about 1.4 pupils per textbook for the two subjects.

11. A critical aspect contributing to lower completion rates is the large increase in student enrolment that affects classroom size, quality and completion. The population of Africa grew at an annual rate of 2.6 per cent in the period 1990–2015. Children up to 14 years of age increased in Africa in absolute numbers from 214 million in 1980 to 486 million in 2015. This increase led to a greater demand for schooling, with the number of children enrolled in primary school growing from 62 million in 1990 to 149 million in 2012. That increase led to large classrooms, with a pupil-to-teacher ratio of more than 40:1 in 23 countries in sub-Saharan Africa.

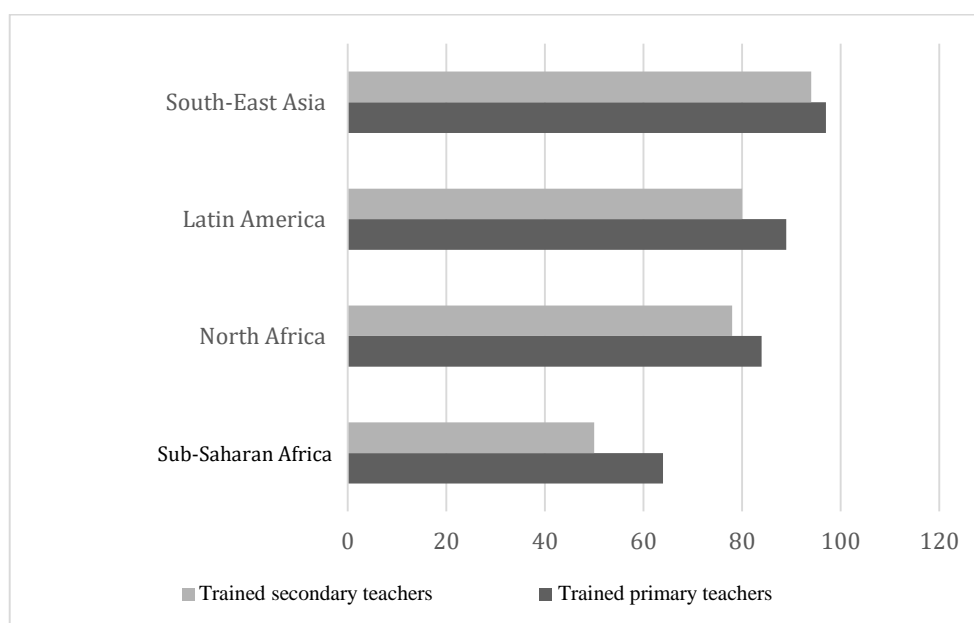
12. That has been complemented by certain supply constraints of trained teachers. In fact, if trained teachers were taken into account, the pupil-to-teacher ratio would increase by 10 students. However, more recent research has shown that rather than pointing towards the lack of textbooks and improved expansion as contributors to the low quality of education, it is more inherent to the education system as a whole.

13. The focus on improving quality of education and ensuring improved alignment to Goal 4 must include the promotion and development of mathematics and sciences at early ages to enhance critical thinking and further assure a balanced distribution of students and ensure secondary school adherence.

B. Trained teachers

14. The supply of trained teachers at primary and secondary level of schooling is an important constraint in quality education. Africa has the lowest proportion of trained teachers globally (see figure 2). This is increasingly important in secondary education owing to its pertinence in preparing for the world of work, accessing to the skills required by the labour market and delivering curricula from which these skills are derived.

Figure II
Trained teachers as a percentage of total teachers



Source: UNESCO Institute of Statistics (2019).

C. Learning outcomes

15. The learning outcomes are a better gauge of education outcomes rather than completion rates. The completion rate in primary education in sub-Saharan Africa (67 per cent) is important as it is not generally a reflection of the learning outcomes achieved by students who have completed the school cycle.

16. Turning to the learning outcomes, the overall evidence emerging from East Africa shows around 50 per cent of 10-year-olds in the region fail at least one of the most basic competencies – reading a simple word and recognizing numbers. Even by age 13, about one third of children in the region continue to be unable to either recognize words or numbers (or both). Using a learning module in the Multiple Indicator Cluster Survey aimed at capturing literacy and numeracy skills of children aged 7 to 14, the evidence for 2018 shows the Democratic People’s Republic of Korea: about 95 per cent of 7- to 14-year-olds have foundational reading skills, while 82 per cent have foundational numeracy skills; while in Sierra Leone, the corresponding shares were 16 per cent and 12 per cent, respectively. Only 39 per cent of those aged 7 to 14 years could read words in a story and just 34 per cent could read numbers.

17. The transition to secondary school cycles is important for the implementation of the 2030 Agenda for Sustainable Development and Agenda 2063: The Africa We Want. The entrance exam to lower secondary school, the 11 Plus, reflects a successful completion and adequate learning outcomes for higher level school participation (see table 1).

Table 1
Education conversion ratios

No.	Education conversion ratios		East and South-East Asia	Latin American and the Caribbean	South Asia	Sub-Saharan Africa
1	Primary completion ratio	Completion rate divided by the enrolment rate	0.992	0.957	0.950	0.720
2	“Lost in transit” ratio	1 – (lower secondary enrolment rate divided by the	0.136	0.126	0.255	0.520

		primary completion rate)				
3	Secondary completion ratio	Upper secondary completion rate divided by the lower secondary enrolment rate	0.337	0.354	0.11	0.040
4	School completion ratio	Secondary completion rate divided by the primary enrolment rate	0.289	0.296	0.077	0.014

Source: compiled from the Millennium Development Goals database.

18. Table 1 contains information comparing sub-Saharan Africa with other regions. It is evident that children drop out at each stage of the school cycle everywhere. Only about 13 per cent of students are “lost” in transiting from the primary to the secondary stage in the regions of East and South-East Asia and Latin America and the Caribbean, and about 25 per cent in South Asia. In sub-Saharan Africa, more than half (52 per cent) of the student population is unable to make that transition. As a result, the vast improvement in primary enrolment achieved in the last two decades seems to be of little use, because the children do not acquire sufficient skills to make the transition to the secondary stage, which is crucial for future employment.

19. Thus learning outcomes in completing school cycles are inadequate in transiting to higher school level participation. This is a serious challenge in the shift towards secondary education as an entry point towards improved labour market participation in the current 2030 Agenda. Second, learning outcomes gauged through effective skill testing indicate insufficient attention to quality of education.

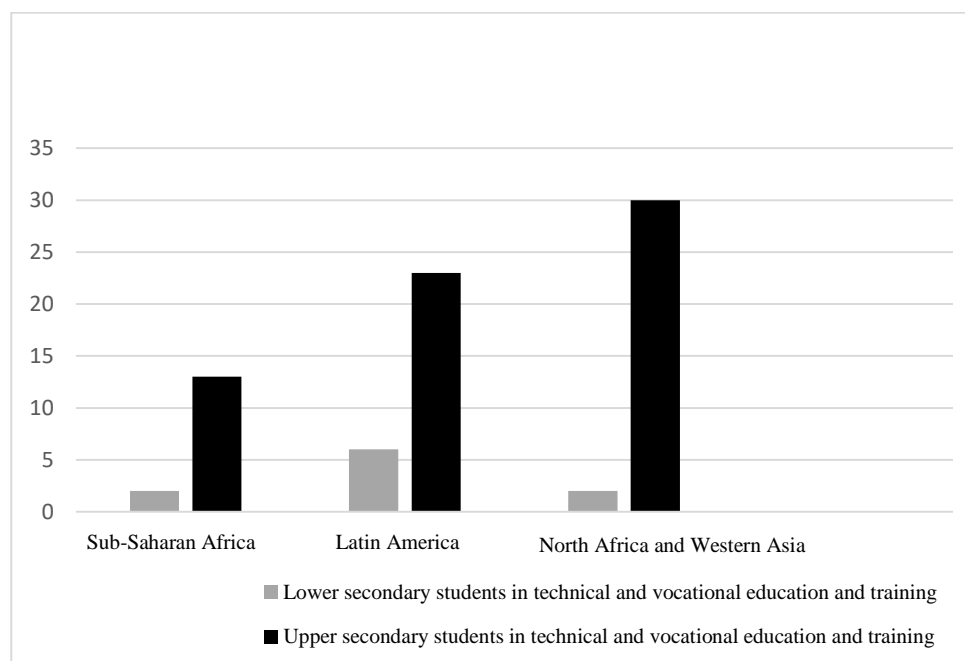
D. Technical and vocational education and training

20. The introduction of technical and vocational education and training in Goal 4 is specific to targets 4.3 and 4.6. The targets cover a wide range of age groups (young people and adults), types of education provision (formal and non-formal) and education purposes (work and non-work). As a result, it is difficult to define a concise monitoring framework.

21. In sub-Saharan Africa, entrance to enrolment in technical and vocational education and training is in line with global trends, demonstrating that the percentage of participation increases at upper secondary level (figure III).

Figure III

Student participation in technical and vocational education and training at lower and upper secondary in global regions
(Percentage)



Source: UNESCO, *Global Education Monitoring Report 2019*.

22. However, in sub-Saharan Africa levels of participation are low. Social attitudes and educational aspirations are one challenge to technical and vocational secondary education in some settings. It is often perceived as less academically oriented and, therefore, a hindrance to entering tertiary education. At the aggregate level, however, the evidence does not indicate that secondary students in technical and vocational education are excluded from tertiary enrolment.

23. Throughout Africa, access to traditional apprenticeships – rather than more formal public and civil society organizations, both for-profit or non-profit, that are predominantly accessed by young people on the continent – are equally important. In Senegal, approximately 10,000 young people attend formal institutions for technical and vocational education and training compared with 444,000 in the traditional motor repair apprenticeships. In Ghana, only 5 to 10 per cent of individuals access formal institutions while 80 to 90 per cent follow the traditional form based on social networks and connections. While such informal apprenticeships enlarge the supply, demand and access are still inequitable across income. For example, in Ghana in 2008, only 11 per cent of the poorest 20 per cent had done an informal apprenticeship as opposed to 47 per cent of the wealthiest 20 per cent.

24. There are some interesting examples of successful technical and vocational education and training in countries in Africa. For example, in Ghana, the Integrated Community Centres for Employable Skills were assessed in the production of employable skills. The exercise was conducted in two rural areas (Ashanti and Brong Ahafo) and women represented more than 70 per cent of the participants. The study assessed the Centres in terms of improved employment skills provided and the overall improvement in livelihoods in the community. The courses provided were related to trades (electrician and woodworker) and agricultural (beekeeping and food processing) and lasted on average for 3 to 6 months. The results were rather positive, with the programmes able to address basic skills and match the labour demand. The study also reported increased welfare within the rural communities. Mauritius has extensive technical and vocational education and training programmes,

with 50 per cent of secondary school enrolment in technical schools. The current plan to scale up technical and vocational education and training to two entry levels – technicians at secondary level and polytechnic for middle management – is predicated on the workforce requirements of industry, on the basis of the Education and Human Resources Strategy Plan 2008-2020 of Mauritius.

E. Equity

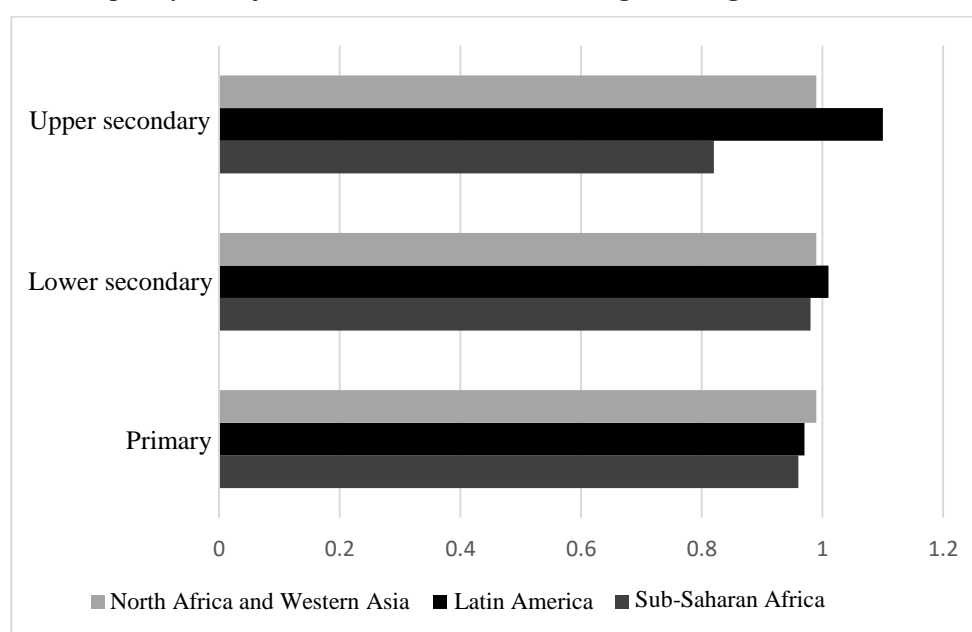
25. Equity as measured in Sustainable Development Goal 4 is in adherence with the overall aim of the 2030 Agenda, that is, of leaving no one behind. In Goal 4, gender, income and location differences that require policy attention are identified.

26. In Africa, boys are about 5 per cent more likely than girls to complete schooling. Location and income levels also affect completion rates. Urban dwellers are more likely to complete school than rural dwellers. In addition, those from wealthy backgrounds have higher completion rates than those from poor backgrounds. A total of 69 per cent of children who do not complete the primary cycle live in rural areas; 67 per cent of those children come from the poorest 60 per cent of households. When those disparities are combined, completion rates drop even more. Girls who live in rural areas and come from the poorest 60 per cent of households represent 26.3 per cent of children who do not complete primary education, whereas boys living in urban areas and coming from the richest 40 per cent of households represent only 8.6 per cent of children who fail to complete primary education. Consequently, the poorest rural dwellers, and women in particular, have a low skill set for active participation in labour markets.

27. Completion rates at secondary level of schooling present a broader challenge. The introduction of a higher share of tuition fees at secondary level for most African households has exacerbated lower completion rates. Although household education expenditure for primary education is up to 37 per cent on average, that figure rises to 58 per cent for secondary education. For example, in Malawi and Rwanda, both of which have accelerated their lower secondary school enrolments between 2000 and 2010, completion rates rose only from 9 to 15 per cent in Rwanda and from 16 to 25 per cent in Malawi.

28. Achieving equitable education systems that leave no one behind is at the core of Goal 4. The gender parity across levels of schooling in Africa is revealing (figure IV). Gender parity data are not computed on completion rates, but rather on adjusted enrolment rates – that is, the total number of students of the official primary school age group who are enrolled at primary or secondary education, expressed as a percentage of the corresponding population.

Figure IV

Gender parity in adjusted enrolment rates across global regions

Source: UNESCO 2019.

29. This notwithstanding, in sub-Saharan Africa, there is a positive increase in gender parity transiting from primary to lower secondary, from 0.96 to 0.98 in the period 2005–2015. The gender parity then drops at upper secondary level to 0.82. The drop in gender parity from lower to upper secondary can be the result of a number of factors and is a more comprehensive approach to gender equality than a simple education gender parity.

30. First, the rate of early child marriage remains critical. The adolescent fertility rate during the period 2010–2015 was 98 per 1,000 women, compared with 67 in Latin America. Gender inequities are further exacerbated by level of wealth, which has a significant effect on the fertility rate.

31. Second, the adolescent fertility rates mean that secondary school attendance by pregnant girls becomes particularly challenging. There are some interesting examples in Africa of policy importance. It is interesting to note that most of the countries that have achieved gender parity are from Southern Africa. The gender parity in secondary education in Southern Africa was partly driven by a protocol on education and training of the Southern African Development Community and a specific programme on the advanced education of girls, which coordinates the member States in that subregion to implement gender equity policies that include recuperating girl dropouts and pregnant girls and raising awareness on cultural norms for gender exclusion.

32. In addition, a 2018 flagship report of the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) on the theme “Turning promises into action: gender equality in the 2030 Agenda for Sustainable Development” states that 15 million girls of primary-school age would never get the chance to learn to read or write in primary school, compared with 10 million boys. In Africa, excluding North Africa, despite recent progress, access to quality education was still not universal. A total of 48.1 per cent of adolescent girls were not in school, compared with 43.6 per cent of adolescent boys. In Nigeria, according to the same report, wealth is a driving force behind educational attainment. A total of 13 per cent of women and girls from the richest households report completing six or less years of education; in the poorest households, the figure is 96.5 per cent.

III. Gaps and emerging issues

A. Data

33. The data needs for the monitoring of Goal 4 are large, and national capacities to develop policy action are diminished without access to timely and accurate data.

34. In terms of data there are a number of features of importance. First, a harmonization of national definitions with global targets and indicators is still in process. Second, reliable data on the educational status of children with disabilities are lacking. Accurate data on children with disabilities – disaggregated by gender, age and type of disability – as well as school-level data on accessibility and teacher training, should be routinely collected and used for disability-inclusive education planning and resourcing.

35. Data availability for all the indicators is scant. Synergies across the indicators is seriously challenged if an indicator has insufficient data to feed into other indicators within the same target. The use of household administrative data is a serious challenge. For example, early childhood educational attainment is crucial for cognitive and emotional development, which serve an important protective function in traumatic crisis settings. Data on early childhood education are scarce as their delivery is largely private. Government acknowledgement that the first priority is starting early – and staying the course over two decades of childhood – is an important step in progress on the 2030 Agenda. Indeed, the development of early childhood education increases completion rates across levels of education.

36. The interconnectivity of data and indicators for Goal 4 is critical. The complete set of indicators and target data allows for a more comprehensive monitoring of Goal 4. It also provides empirically grounded information for policy action by national authorities. There needs to be greater investment in national statistical systems in Africa to support capacity-building and provide more, and better-quality, data for use in education policy and planning and to track progress. Financial support is also needed in order for countries to produce the data needed for sound policymaking.

B. Data and national plans

37. The notable success of the Education for All movement towards universal primary education was based on a number of features that still require policy attention within the Education 2030 Agenda. After 2005, at the mid-term review of progress on the Millennium Development Goals, there was a call for low-income countries to anchor the Goals within national plans. That galvanized political action, increased national ownership and contributed to improvements in data collection, policy action and progress towards achieving the Millennium Development Goals.

38. The link between Sustainable Development Goal 4 on education and the 2030 Agenda in general is critical. The Addis Ababa Action Agenda of the Third International Conference on Financing for Development underpinning the 2030 Agenda also includes the suggestion of mainstreaming the Goals in national plans; however, implementation, in particular on education, has been weak. For example, specific policies to bolster secondary education in Africa have also been given insufficient attention.

C. Curriculum development

39. The adaptation of the curriculum to labour market demand envisaged in the 2030 Agenda has been rather insufficiently addressed. Across key job families, recruitment is currently perceived as most difficult for traditional

middle-skilled and skilled trade occupations, including those involving installation and maintenance, architecture and engineering, and computing and mathematics. By 2020, respondents expect that it will be significantly more difficult to recruit specialists across most job families, in particular in computing and mathematics, given the high competition for a limited number of skilled workers, which already exists in the field today. Interestingly, clerical and administrative roles will be among the hardest jobs to recruit for in absolute terms by 2020. The adaptation of the curriculum to that changing skill demand is a challenge.

40. The rapidly changing job market and the potential response in the educational curriculum is a particularly difficult challenge in Africa. The problem-solving skills generally developed within secondary schooling require increased flexibility, both in terms of content and adaptability to labour market demands. This issue requires policy attention.

IV. Mobilizing the means of implementation

41. The tax base in most countries in Africa has remained narrow, negatively impacting on the capacity of States to mobilize sufficient domestic revenues to invest in the key enablers of the economy, including education. The tax-to-GDP ratio in countries in Africa remains very low when compared with member States of the Organization for Economic Cooperation and Development; most of those countries have a tax-to-GDP ratio of less than 15 per cent. Widening the tax base and enhancing the efficiency and capacity of tax administration are important for effective resource mobilization for financing sustainable development. Furthermore, it is important to improve spending efficiency and efficacy in the area of education. Leveraging the role of the private sector as provider of educational services is critical.

42. The public budgetary allocation to education in Africa has remained largely at the level of the previous development agenda. The larger remit of Goal 4 requires policy attention, which has financial implications.

43. The mobilization of adequate finance is an important means for the attainment of sustainable development. The Addis Ababa Action Agenda provides a financing framework for the 2030 Agenda. The Addis Ababa Action Agenda identifies strategies for developing countries to mobilize domestic resources and also specifies the need for computing the required resources to achieve the Goals.

44. In this regard, indicative targets are vital to the success of mobilization efforts. The Millennium Development Goal agenda, complemented by the Education for All Fast Track Initiative, indicated a spending target of 20 per cent of Government expenditure for the implementation of that agenda. A similar exercise of computing required resources has also been proposed in the Addis Ababa Action Agenda but the resultant spending targets for the Sustainable Development Goals have yet to be calculated.

V. Conclusion

45. The need to shift from learning how to read and write, to skills for life and work is at the core of Goal 4. The move towards matching skills to the world of work requires particular attention in national plans and budget and the anchoring of the Goals, and Goal 4, in national plans is critical, as targets and indicators and national priorities become better aligned to the 2030 Agenda.

46. With regard to data, most countries do not have access to data in a regular and timely manner. Data collection is a critical challenge: surveys are infrequent. In addition, improvements in other data sources, such as administrative data, civil registration and vital statistics and geospatial data, have been very slow.

47. As at 4 January 2017, according to the global database of the UNESCO Institute of Statistics on the Goals, only 37.8 per cent of the indicators had data on countries in Africa.

48. The need to link education to skills and labour markets as per Goal 4 requires improved coordination across line ministries on finance and planning. This takes on increased importance owing to the changing world of work. Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology, to name just a few, are all building on and amplifying one another. The new labour market taking shape in the wake of the fourth industrial revolution holds both challenges and opportunities, with shifts in job roles and occupational structures and consequently a faster and differing demand for skills. Therefore, an imperative for achieving such a positive vision of the future of jobs will be an economic and societal move towards the production of matched skills as per Goal 4.

Recommendations

- Equity across gender, income and location needs to be addressed through appropriate equity-based public policies
- Technical and vocational education and training has enormous potential in bridging the school work transition particularly in a changing work environment
- Strengthening educational data collection, use and quality must be aligned to the 2030 Agenda and statistics offices must be sufficiently funded and capacitated
- Improve national ownership and alignment of Goal 4 through mainstreaming education targets and indicators in national and sectoral plans
- Ensure quality of education through improving teacher quality and ensuring suitable availability of books and learning material to all