

**PROGRAM-FOR-RESULTS INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

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I. Country Context

1. **Tanzania has registered impressive rates of economic growth and poverty reduction over the last decade.** GDP grew annually at an average of 6.5 percent—higher than the Sub-Saharan African average and of many of Tanzania’s regional competitors. Poverty has declined from 34 to 28 percent between 2007 and 2011/12 and income inequality has also declined.

2. **Despite its strong growth performance, the ability of the economy to generate new jobs has been impeded by low productivity growth.** While healthy economic growth has been accompanied by signs of a *structural transformation*, productivity remains low. Overall increases in productivity have relied on structural changes in the economy, as labor shifted from low-productivity agriculture to higher-productivity services. However, there has been limited productivity growth within sectors. Around 80 percent (2.6 million) of the new jobs created between 2006 and 2014 were in the informal sector, particularly in wholesale and retail services. Moreover, labor productivity is low compared to other SSA countries.

3. **Tanzania needs to improve its levels of human capital if it is to accelerate economic growth and move closer to its aspiration for middle income status by 2025.** With high rates of population growth, per capita income – US\$900 in 2016 – is only growing slowly and while many families have recently escaped poverty they remain vulnerable. Climate change, urban congestion, governance and rapid population growth also present obstacles to faster economic development. The World Bank’s recent Systematic Country Diagnostic (SCD) for Tanzania argues that the reforms needed to create more jobs, improve productivity and further reduce poverty require three major transformations.¹ First, a *structural transformation* to leverage Tanzania’s natural assets and maximize its comparative advantage in areas such as agro-processing. Second, a *spatial transformation* to make use of Tanzania’s geographic advantages and to maximize the benefits from industrial agglomeration and better regional economic integration. Third, an *institutional transformation* to upgrade the strength and quality of public institutions to deliver good quality services effective at boosting economic productivity. However, progress in these

¹ World Bank. 2017. "United Republic of Tanzania: Systematic Country Diagnostic: To the Next Level of Development" Report No. 110894-TZ. Washington DC: The World Bank Group.

areas is only likely if the necessary foundations, including better skills, are put in place.

4. **Education is key to building the human capital necessary for more rapid and equitable economic growth.** Better levels of human capital can improve the capacity of a country to absorb and adapt new technology to drive medium run growth and catalyze the technological changes that are required for long term and sustainable economic development. There is a great deal of evidence that shows that higher levels of education can increase long-term growth and countries that have achieved long periods of high growth have typically invested heavily in expanding education alongside complementary investments in health and infrastructure. And where these investments are focused on disadvantaged or vulnerable groups the additional growth will reduce poverty, inequality and improve social mobility.

5. **Despite rapid progress and high economic returns, the average skill levels of the labor force, starting from a low base, remain inadequate.** Over the last two decades, the average years of education of the adult population has increased from 4 years in 1995 to 6 years in 2015.² Over a similar period, the economic returns to education have also remained relatively stable. For example, the rate of return to a year of secondary education increased from 13 percent to 15 percent between 2000 and 2011.³ While education attainment among new labor force entrants has increased, only around 10 percent of the working population have any post-primary education necessary to support economic diversification.

6. **The inadequate supply of science graduates is a major constraint in building the science and technology capabilities required to transform the economy.** Tanzania's current development plan highlights the importance of investing in science, technology and innovation to support the shift of the economy from low productivity sectors such as agriculture to more productive sectors including manufacturing and services.⁴ However, the higher education system is currently unable to provide sufficient science graduates to meet demand and provide the skills necessary for technology adaptation and development. In 2013, only a quarter of university graduates were from science streams. Very low enrolment (the tertiary Gross Enrollment Ratio was 4 percent in 2013) has its roots in low levels of completion and poor learning outcomes in secondary education, especially in mathematics and the sciences.

7. **Unless addressed, these skill shortages will hamper Tanzania's ability to achieve the transformations necessary to achieve middle income status.** Approximately 40 percent of firms interviewed as part of the 2013 Tanzania Enterprise Survey identified an inadequately educated workforce as a major constraint to their operations – much higher than the average rate of 23 percent across Sub Saharan Africa. Providing greater access to good quality post-primary education opportunities will contribute to better overall levels of human capital and support the transformations necessary to accelerate rates of equitable economic growth.

8. **Improving the education levels of women is critical to realize faster and more equitable economic growth.** Well-educated girls have better health outcomes and substantially higher earnings in adulthood. Given the high rate of labor force participation among Tanzanian women (80 percent over the last 15 years compared to a Sub-Saharan Africa average of 62 percent) raising education attainment will have significant impacts on productivity, growth and poverty reduction.

² UNDP Human Development Report.

³ Claudio, E, Patrinos Harry Anthony, and Patrinos Harry. 2014. "Comparable Estimates of Returns to Schooling around the World." Policy Research Working Paper Series.

⁴ URT. 2016. National Five Year Development Plan 2016/17 – 2020/21: Nurturing Industrialization for Economic Transformation and Human Development.

9. **Girls' education is also associated with wider economic and social benefits.** Better educated women are older when they start having children and tend to have fewer children over their life time. In Tanzania, a woman with complete lower secondary education is 24 years of age at the time of her first pregnancy compared to 19.6 years old for a woman with only complete primary education. Women with complete lower secondary education or above have only 3.6 children over their lifetime compared to 5.3 children for a woman with complete primary education.⁵ Better education and fewer children also significantly improve child outcomes that result in large intergenerational benefits and contribute significantly to long-term economic and social development. Overall, the impact of girls' education on fertility and child outcomes is critical for accelerating and securing the dividends associated with the demographic transition.⁶

II. Sectoral and Institutional Context

10. **Over the last 10 years, secondary education outcomes have improved.**⁷ Enrolments in lower and upper secondary have increased substantially from 675,000 in 2006 to 1.8 million in 2016.⁸ And despite significant growth in the overall school-age population, enrolment rates in secondary have risen from 12 to 31 percent over the same period. Inequalities in education access have also narrowed. For example, gender gaps in lower secondary enrolment, favoring boys, were eliminated in 2014. Overall, the number of graduates entering the labor force with either lower or upper secondary education has increased by 150,000 to 420,000 over the last 10 years adding to the existing stock of skilled workers and contributing to better economic and social development outcomes. Despite this rapid progress, low and unequal levels of (i) access and completion; and (ii) student learning outcomes persist.

Continued low and unequal levels of access and completion.

11. **Despite recent improvements in enrolment, access to secondary education in Tanzania is still low compared to other comparator countries.**⁹ Differences are widest at upper secondary - in 2015, the Gross Enrolment Rate (GER) was seven percent compared to a low-income country average of 28 percent. While girls' and boys' enrolment rates in lower secondary are similar, male enrolment rates in upper secondary are almost double those for girls. Socioeconomic disparities in secondary are also large. For example, lower secondary net attendance ratios were 6 percent for the poorest fifth of households compared to 41 percent for the wealthiest households. These are partly driven by regional disparities; net

⁵ Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], Ministry of Health (MoH) [Zanzibar], National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF. 2016. Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2015-16. Dar es Salaam, Tanzania, and Rockville, Maryland, USA.

⁶ Canning, D, S. Raja, and A.S. Yazbeck, eds. 2015. Africa's Demographic Transition: Dividend or Disaster? Africa Development Forum series. Washington, DC: World Bank.

⁷ Secondary education is split between lower secondary (four years) and upper secondary (two years). Lower secondary also forms the final four years of the basic education cycle which consists of pre-primary (one year), primary (seven years) and lower secondary.

⁸ Increases in government school places have been responsible for the increase in secondary enrolment. In 2016, non-government schools made up 18 percent of lower secondary enrolment and 41 percent of upper secondary enrolment.

⁹ Recent drops in lower secondary enrolment rates have been the result of fewer children enrolling in primary and transitioning to secondary. However, this is expected to improve because enrolment in the lower grades of primary have already begun to increase and transition rates into secondary area also expected to increase because of the FBEP.

attendance ratios for households in Mjini Magharibi were 56 percent compared to 11 percent in Rukwa.¹⁰

12. **While more girls than boys reach the end of primary a similar number continue onto secondary school.** Only around two-thirds of students in the last grade of primary successfully pass the leaving examination and enroll in lower secondary. In 2015, 434,000 girls were enrolled in the final grade of primary compared to 381,000 boys. However, only 63 percent of girls continued into the first form of secondary in 2016 compared to 69 percent of boys. The lower female transition rate has resulted recently in similar numbers of boys and girls starting secondary school.

13. **Once enrolled in lower secondary, drop-out rates are relatively high particularly for boys.** Student drop-out is relatively high in all lower secondary grades but peaks after examinations at the end of Form 2. Overall, 72 percent of the girls and 62 percent of the boys that begin lower secondary complete it. The most common reason for drop-out for both boys and girls is truancy. However, pregnancy accounts for about 10 percent of female drop-out since pregnant girls are legally prevented from continuing in school. Early marriage is also an important cause of drop-out but the number of children dropping out of education for this reason is less clear.

14. **There is a sharp drop in the number of students, particularly girls, that transition from lower to upper secondary.** In 2016, the transition rate between lower and upper secondary was only 15 percent with far fewer girls than boys continuing; the transition rate for girls was 12 percent compared to 19 percent for boys. These lower transition rates are partly the result of poorer female performance in the Form 4 examinations which determine whether students can continue into upper secondary. Large disparities in transition rates lead to large differences in upper secondary enrolment between boys and girls. Among the 145 countries that reported data in 2012, Tanzania had the twelfth worst gender parity index for enrolment at upper secondary and compared unfavorably with low-income country and Sub-Saharan Africa averages.

15. **Overall, for every 1000 girls (boys) that start lower secondary only 57 (108) complete upper secondary education.** Combined with relatively low levels of access, the proportion of youth that complete lower and upper secondary education is low. In 2015, the secondary education system produced less than 18,000 successful mathematics and science graduates equivalent to only 2 percent of the relevant age cohort. This has consequences for enrolment in post-basic education and training as well as for average levels of skills in the labor force.

Low, unequal and declining student learning outcomes

16. **Secondary school examination pass rates are low particularly for girls.** Except for Kiswahili, boys outperform girls in all subjects and the differences are large. For example, only a third of girls passed the Form 4 physics examination compared to half of boys that entered. While examination pass rates are not a good indicator of overall learning outcomes other sources suggest that learning outcomes in secondary education are low. For example, a recent curriculum-based assessment in mathematics carried out in 200 secondary schools on girls in Forms 2 and 4 reported low overall levels of learning achievement.¹¹

¹⁰ 2015/16 Demographic and Health Survey. Net attendance ratio is the number of children of lower secondary school age attending lower secondary school as a percentage of the total number of lower secondary school age children in Tanzania.

¹¹ Alcott, B.M., Rose, P.M. and Sabates, R., 2017. Targeted, Multidimensional Approaches to Overcome Inequalities in Secondary Education: Case Study of Camfed in Tanzania.

17. The low performance of girls can be attributed to a set of underlying factors that include:
- a. *Distance to school.* In 2017, approximately a third of girls enrolled in secondary school had to travel over 3 kilometers to their closest secondary school. The costs of transport to cover these large distances can be prohibitive and long distances can expose girls to physical dangers along the way. Moreover, girls walking to school can add further to the time and energy costs that girls face from a greater share of household chores and affect their levels of concentration and effort while at school.
 - b. *Inadequate infrastructure in school.* The poor quality and lack of menstrual hygiene management conditions in latrines, overcrowded boarding dormitories and lack of health services can also impact on girls' performance.
 - c. *Corporal punishment.* Corporal punishment is permitted by law although there are protections associated with its use. In focus groups, corporal punishment was frequently mentioned as a challenge to girls' performance as were the uncaring and limited ability of teachers.

While most of these factors affect all students, they tend to have a more detrimental effect on girls compared to boys.

18. There are also significant disparities in examination results between regions; in 2016 overall Form 4 pass rates varied from 53 percent in Lindi to 88 percent in Iringa and Njombe. The passing grade in Form 4 has been a key determinant of access to upper secondary with students achieving a Division 3 pass or higher generally gaining admission to upper secondary.¹²

19. **The government's main objectives in the education sector are to universalize access to lower secondary education and raise education quality, particularly in mathematics and the sciences.** In primary, where coverage rates are high, the focus continues to be on improving student learning. Interventions in primary education, supported by the Education Program for Results (EPforR) operation, have begun to show signs that they are increasing quality. For example, students in Grade 2 have increased their average reading fluency from 18 to 24 words per minute between 2013 and 2015/16.

20. **The announcement in 2016 of the Fee-Free Basic Education¹³ Policy (FBEP) has lifted an important barrier to secondary school access and completion.** The policy aims to universalize 11 years of basic education and eliminate both informal fees for primary education and formal fees for lower secondary education. The government has backed up the policy with increases in funding for basic education. For example, between 2016 and 2021 the ESDP indicates that spending on basic education will increase by 34 percent in real terms. Indications are that the policy has led to a larger than expected surge in enrolment. In 2017 the number of students entering primary Standard 1 increased by 41 percent compared with 2016 and enrolments in lower secondary increased by approximately 7 percent.

21. **Implementing the FBEP in an equitable way while at the same time improving quality is ambitious.** Assuming continued higher enrolment in Standard 1 and reduced dropout, it is likely that the abolition of fees will swell the primary and lower secondary school population considerably over the next five years. Estimates suggest that between 2015 and 2021 secondary school enrolment will increase by 41 percent from 1.8 to 2.5 million.¹⁴ This will require a large infrastructure program to provide school places in underserved areas, provide ever greater numbers of teaching and learning materials and increase the

¹² Pass rates at these higher divisions have been tightly controlled to match with the number of available upper secondary spaces so they are not a good measure of trends in learning.

¹³ Basic education in Tanzania consists of pre-primary, primary and lower secondary education levels.

¹⁴ MoEST. 2017. "Education Sector Development Plan (2016/17 – 2020/21): Tanzania Mainland".

demand for teachers significantly. This increased demand will add further pressure to the existing system that faces significant shortages in basic infrastructure and other inputs required for good quality schooling. While the experience in Sub-Saharan Africa of abolishing primary school fees shows that countries, including Tanzania, can expand school enrolment at this pace, relatively few countries have managed this in secondary in the past five years. Improving quality at the same time will prove a significant challenge.

22. Ensuring that the FBEP leads to better secondary education outcomes require actions to provide adequate and good quality learning environments and sufficient teachers with improved skills and motivation.

Adequate and good quality learning environments

23. Providing the school places needed to implement the FBEP will require careful planning to ensure that the school network is expanded in an equitable and affordable way. Distances to secondary schools are a key constraint to educational participation and a key driver of education disparities across regions and across socioeconomic groups. Ensuring that new facilities are provided in underserved areas and located optimally to reduce school travel times will be crucial if FBEP is to be successful.

24. Some areas of school infrastructure are currently inadequate and continued secondary expansion will add further pressure. Existing secondary schools have shortfalls in classrooms and other facilities. For example, the availability of water and sanitation facilities tend to vary widely across secondary schools and the number of latrines is inadequate. Moreover, 54 percent of secondary schools have no regular water supply throughout the year. These are important drivers of poor education outcomes for girls entering puberty during secondary school.¹⁵ Facilities for science teaching are also inadequate with many schools operating without a functioning laboratory to teach practical aspects of the curriculum. A lack of ICT equipment for teachers also limits their ability to exploit online teaching resources and materials to help them manage large class sizes and high teaching loads. When looked at as a whole, less than one in five secondary schools meet minimum infrastructure standards. Expanding access and reaching underserved areas will also require more secondary schools. Since distance between schools and households is a major factor in explaining school drop-out it will be important to locate new schools optimally to reduce travel times.¹⁶

25. Providing good quality learning environments and expanding enrolments at the same time requires improvements in the efficiency and effectiveness of the secondary education system. Key elements of the existing secondary school infrastructure package are expensive and will hamper efforts to universalize basic education. Approximately, a quarter of all governments secondary schools in Tanzania provide at least some boarding facilities. Evidence suggests that their high cost can limit the number of school places that can be created when compared to more cost-effective day schools.¹⁷ They can also increase safety issues especially for girls. The costs of building and equipping science laboratories in Tanzania are more than three times the cost of building a regular classroom. However, they are not cost-effective and other alternatives (e.g. a single multipurpose laboratory, virtual laboratory or science kits) can provide similar exposure to practical science at lower cost.¹⁸ Teacher deployment at the national level

¹⁵ Sperling, G., and R. Winthrop. 2016. What Works in Girls' Education: Evidence for the World's Best Investment. Brookings Institution. Washington D.C.

¹⁶ UNESCO. 2011. "Tanzania: Education Sector Analysis".

¹⁷ Bashir, S. Lockheed, M., Ninan, E. and Tan J.P (2018, forthcoming). Facing Forward: Schooling for Learning in Sub-Saharan Africa. Washington D.C.: World Bank.

¹⁸ World Bank. 2017. Tanzania preparation of the national school construction strategy technical note.

also means that teachers are often posted away from their home regions and are provided housing, adding further to the costs of the traditional school package. Finally, providing teachers to cover the 14 subject choices at lower secondary and 27 subjects at upper secondary can add significantly to the overall costs and reduce the efficiency of the system.

26. **The poor quality of the learning environment in many secondary schools also affects teacher motivation as well as student outcomes.** Many schools do not meet norms for teaching and learning materials. While there have been improvements in student-textbook ratios and teacher-teacher guide ratios recently, shortages in specific subjects particularly in upper secondary remain. Moreover, reviews of textbook policy over the last 10 years point to the low quality and lack of relevance of existing textbooks and the need to align them with the curriculum goals of the Education and Training Policy issued in 2014.¹⁹

Adequate teachers with the right skills and motivation

27. **Building a competent and effective teaching force is critical if the FBEP and the related secondary school expansion is to succeed.** The Education Sector Development Program estimates that the overall secondary school teaching force will need to double over the next 10 years to accommodate the enrolment increases already underway from the Fee-Free Basic Education Policy (FBEP). Considering teacher attrition this will require a significant increase in teacher hiring.

28. **Addressing current teacher shortages, particularly in mathematics and physics, is a crucial component of the overall increase in teacher needs.** Available evidence suggests that despite recent increases, government secondary schools still suffer from teacher shortages particularly in mathematics and physics. Across the system, estimates of teacher requirements show that there are only half of the needed secondary school mathematics teachers and only 75 percent of the required physics teachers. In contrast, there appears to be an excess of Kiswahili teachers across the system.

29. **Estimates of national teacher requirements mask teacher distribution challenges that leave many schools without sufficient teachers.** For example, even though there appear to be sufficient biology and chemistry teachers nationally many regions report significant shortages. For example, in Geita and Lindi vacancy rates for biology teachers are reported to be about 70 percent. Low numbers of students in some subjects in some schools are also likely to mean that some teachers are unable to teach a full work load.

30. **Underlying these high vacancy rates are the limited numbers of students that successfully complete secondary and enroll in university as well as increased competition to employ eligible graduates from other sectors of the economy.** Tanzania has used many initiatives in the past to address short run teacher shortages successfully. For example, retired science teachers have been recruited on short-term contracts and non-education university graduates have been hired and subsequently given pedagogical training. However, resolving teacher shortages also requires longer term actions. Pre-service training for secondary school teachers takes place at the university level but enrolment levels are low in comparison to need particularly in mathematics and science. For example, in 2017 there were 6,877 undergraduate student teachers but less than four percent were enrolled in the science stream.

31. **The limited number of upper secondary graduates is a key factor driving low uptake for pre-service teacher education.** Only approximately 12,000 students graduate each year from upper secondary (one percent of the 19-year-old population) with a mathematics or science background. And these graduates are in high demand in the labor market and tend to pursue university programs, other than

¹⁹ MoEST. 2017. “Secondary Education Development Programme III (2017- 2022)”.

education, that link more directly to private sector job opportunities. Initiatives to make teaching more attractive are needed and have the potential to increase the share of secondary graduates pursuing a teaching career. However, given the very small number of secondary graduates this would reduce the number entering the private sector and potentially limit private sector growth. Alternatively, expanding access to upper secondary and encouraging students to pursue science and mathematics combinations would improve the overall stock of labor force skills and provide a bigger pool to attract teachers from.

32. **While entry to upper secondary is based on performance in the Form 4 examination, and results are low, there are students who qualify for upper secondary but do not continue because of lack of spaces.** Between 2015 and 2017, approximately 19,000 students each year had the required grades in the Form 4 examination but were not selected into government upper secondary schools due to a lack of places. While about a half of these students find places in private upper secondary schools there remain a significant number of students that qualify but are unable to continue.

33. **Recent evidence also suggests that the skills and motivation of secondary school teachers are low.** Even when teachers are in post, absenteeism and administrative duties limit the amount of time teachers spend in the classroom. A recent study in five regions found a fifth of government secondary school teachers absent during unannounced visits.²⁰ Moreover, only 30 percent of the teachers that were present were in class teaching. The relatively poor secondary school examination results also suggest that the competencies of existing teachers are low.²¹ The gender and socioeconomic composition of students will change as secondary education is expanded. This will present new demands on secondary teachers including managing classes with a wider range of abilities and greater needs in terms of supporting at risk learners including girls.

34. **Differences in teacher expectations and attention can also drive gender differences in learning outcomes.** For example, expectations of their lower ability may limit the attention teachers give to girls or may cause them to steer girls away from the science and mathematics. Girls are also called on to perform chores for teachers at school (e.g. fetching water, cleaning classrooms) which can reinforce gender stereotypes as well as take time away from learning.²² Without concerted actions to address these factors it is unlikely that gender gaps will close.

35. **While there has been progress in strengthening systems to manage and support teachers, they remain weak.** In-service training is irregular and often addresses only some of the weaknesses in competencies exhibited by secondary school teachers. Moreover, training usually takes place outside of the school with limited follow up or support to help teachers apply the skills they have learnt. New teachers receive limited classroom practice during their pre-service education are placed in schools without an induction period or formally assigned mentors. Quality assurance in schools has improved and systems to introduce stronger incentives for teachers to attend school and focus on student learning outcomes are in place but are currently not operational. For example, the civil service performance review and appraisal system has been introduced but implementation is patchy. Moreover, links between performance, career development and remuneration are presently limited.

²⁰ Filmer, D., J. Habyarimana and S. Sabarwal. 2017. Students or Teachers? The Effects of Giving and Taking Away Incentives in Public and Private Schools in Tanzania.

²¹ There is no information on secondary school teacher competencies. However, the latest Service Delivery Indicator Survey found that only 22 percent of primary school teachers had the minimum mastery of the curriculum they teach.

²² Alcott, B.M., Rose, P.M. and Sabates, R., 2017. Targeted, Multidimensional Approaches to Overcome Inequalities in Secondary Education: Case Study of Camfed in Tanzania. UNICEF. 2003. "Girls education in Tanzania"

III. Program Scope

36. **The proposed program will support the lower and upper secondary education components of the ESDP for a five-year period to June 2023.** The secondary component of the ESDP program expenditure framework is based on a set of targets and assumptions and are aligned with the overall priorities of the ESDP. It will only support aspects of the government's program that are not already covered by the ongoing Education Program for Results (EPforR). The estimated cost of the government's overall secondary education program over the next five years (2018/19-2022/23) is approximately US\$ 3 billion.

37. **The expenditure framework over the plan period projects a modest increase in government education spending.** Overall government spending is set to increase in real terms from US\$ 1.9 billion in 2016/17 to US\$ 2.4 billion in 2020/21. Increased government education spending is largely driven by increases in government revenues that arise from economic growth.²³ The share of the overall government budget as a proportion of national income and the proportion devoted to education are assumed to remain the same throughout the period covered by the projection period. Given these assumptions, the share of national income allocated to government spending on education stays relatively constant.

38. **The ESDP expenditure framework projects a shift of overall funding towards secondary education.** The proportion of the overall education budget allocated is projected to increase from 15 percent in the 2016/17 budget to 21 percent in 2021/22.

39. **Elements that will be supported under the proposed program amount to US\$ 1.1 billion.** The proposed program will encompass some but not all of the ESDP activities in secondary education. For example, the program will not support curriculum reform, teacher pre-service education, special needs activities or cash transfer programs. It also excludes salary spending in schools and administrative systems supporting the program.

40. **IBRD/IDA financing represents about 28 percent of the overall financing needed to implement the SEQUIP program.** At this stage, no other development partner support to SEQUIP is envisaged.

IV. Program Development Objective(s)

41. Program Development Objective: To enhance equitable access to and improve teaching and learning environments in government secondary schools with a focus on mathematics and sciences.²⁴

42. Enhanced equitable access is defined as improvements in gender and LGA equity in lower and upper secondary school enrolments.

43. **The Program will improve the proportion of schools with the necessary package of complementary inputs necessary for effective teaching.** Adequate teaching environments means that schools have sufficient mathematics and science teachers to fulfil curriculum standards for class size, subject hours, and teacher workloads. Adequate learning environments are defined as government schools with:

²³ The expenditure framework uses IMF growth projections for Tanzania that assume an average growth of 6.5 percent over the projection period.

²⁴ Science refers to biology, chemistry and physics.

- student classroom ratios of 40:1 or less
- female (male) student latrine ratios of 20:1 (25:1)
- availability of one multipurpose laboratory for practical science per school
- mathematics and science classes with correct number of textbooks and teacher guides
- ICT material package for science and mathematics teaching

44. PDO indicators:

- Increased government school enrolment in first grade of upper secondary (Form 5)
- Increase in female transition rate between lower and upper secondary
- Percentage of government schools with adequate teaching and learning environments (see paragraph 45)
- Number of mathematics and science teachers in government schools improving teaching practice through participation in in-service training

45. **The Program will support two priority areas of the ESDP and the implementation of the FBEP.** The first results area will focus on putting in place the necessary infrastructure for secondary school expansion while at the same time improving existing schools by improving their infrastructure and providing adequate teaching and learning materials.

Results Area 1: Adequate and good quality learning environments

46. **SEQUIP will support the implementation of a school construction strategy developed under the EPforR.** The objective of the strategy is to provide norms for school facilities that provide the best quality educational environment for students and teachers at affordable costs. It includes details on planning of LGA construction programs, how to undertake LGA needs assessments, cost effective packages of facilities and implementation arrangements. It also provides construction norms and a set of standard drawings that comply with norms that can be directly used by LGAs. SEQUIP will focus on implementing the school construction strategy in government secondary schools. Through the Program, each LGA will conduct a needs assessment and a costed multi-year plan for implementation. SEQUIP will disburse funds according to the percentage of school in each LGA complying with the infrastructure norms. SEQUIP also supports the provision of teaching and learning materials particularly for mathematics and science. The government has committed to a student textbook ratio of 1:1 in secondary schools and SEQUIP includes limited ICT equipment to support science teachers particularly where class sizes are large. SEQUIP will disburse against the percentage of schools in each LGA achieving a minimum package of teaching and learning materials.

47. **The first results area also aims to tackle a key bottleneck to the quality of secondary schooling and the skills necessary for technology adaptation and development in the economy.** It will support the FBEP by providing the quality learning environments necessary to accommodate the rapidly growing secondary school student population. It also includes an emphasis on increasing the very low transition rate from lower to upper secondary, particularly for girls, and providing incentives to raise the number of students taking science combinations. Over the medium term, this will not only improve the overall stock of labor force skills but also provide a bigger pool to attract secondary teachers from.

48. **The Program will incentivize increased transition, particularly for girls, directly through two disbursement linked indicators and actions in two areas to support these overall objectives.** First, through the school infrastructure strategy and associated LGA plans upper secondary school places will increase to accommodate students that qualify, through their Form 4 examination results, to pursue upper secondary schooling but have not continued in the past due to lack of space. Second, the Program will support the development of initiatives to increase female transition rates and support girls in upper

secondary school. The EPforR is developing an inclusive education strategy which will provide the foundation for identifying and costing out initiatives in this area. The IPF component of the Program will also support the evaluation of these programs to test different approaches and ensure they support girls effectively.

Results Area 2: Adequate teachers with the skills and motivation to teach all students

49. **The Program will support the development of a teacher hiring and deployment strategy that will to reduce current and projected shortfalls for secondary school teachers.** The strategy, based on a similar approach under the EPforR for primary school teachers, will establish norms for school teacher provision and mechanisms through which shortages can be dealt with in the short-term (e.g. using related subject teachers to teach in subjects with teacher shortages, increasing teacher working loads). The norms will also provide the basis to assess the current distribution of teachers and identify redistributions needed to improve efficiency. In conjunction with the needs assessment for school construction the strategy will also estimate future needs for teachers at the LGA level.

50. **The Program will disburse against the percentage of schools that have sufficient mathematics and science teachers to comply with the teacher deployment strategy.** In the short-run several initiatives, successfully employed in Tanzania before, will be used to increase the supply of mathematics and science teachers. These include increasing incentives for pre-service teacher training courses, hiring retired teachers, developing bridging courses for Form 6 leavers and employing non-education university graduates to teach in secondary schools. In the longer term, expansion of upper secondary school enrolment is expected to increase the pool of individuals eligible and sitting for pre-service teacher education courses (see Results Area 1).

51. **SEQUIP will strengthen the skills of mathematics and science teachers through the provision of in-service training and incentives to ensure that this training translates into improved classroom practice.** It will support the development of training modules for mathematics and science teachers that are aligned with existing teacher competency standards. SEQUIP will also strengthen the use of ICT to support teachers in teaching science by providing hardware (see Results Area 1) and training in the skills needed to use ICT effectively for teaching. It will also update the 2007 ICT strategy for basic education and through a related action plan outline ways that ICT can be also used to support teacher professional development. SEQUIP will disburse funds according to the number of teachers that have undertaken training and as a result have improved their teaching practice.

52. **To reduce gender and other disparities in education outcomes, the Program will develop and implement a teacher training module designed to provide girls and other at-risk students with additional support.** It will include training on identifying at-risk students, issues around adolescence particularly for girls, gender roles, approaches to physical/corporal punishment, teaching practices that support equal learning environments, and approaches to identify and prevent physical, sexual and emotional violence.

53. **The Program also aims to increase teacher motivation through a teacher recognition awards program and by strengthening quality assurance systems.** High levels of teacher absenteeism are one indicator of low teacher motivation in secondary schools. SEQUIP will introduce a teacher recognition system that identifies good performing teachers based on student examination results, reductions in drop-out and completion of teacher in-service training. Improvements in the teaching and learning environments in results area 1 are also expected to improve teacher motivation. A new school quality assurance framework aims to shift the focus of quality assurance to student learning outcomes, the quality of teaching and learning, school leadership, environmental safety, student welfare and community engagement. The new system will also support the in-service teacher training system by monitoring

implementation and identifying teacher professional development needs. SEQUIP will provide incentives to implement the new quality assurance framework in upper secondary schools which is expected to increase the incentives of teachers to focus on student learning.

54. To track progress and identify the strengths and weaknesses of teachers the Program will also support a regular national assessment of Form 4 students. There are currently no objective measures of secondary school student learning outcomes in Tanzania. The lack of information on learning outcomes prevents the tracking of progress or identifying areas of weakness in teaching that require attention. SEQUIP will support the development of a Form 4 national assessment and two rounds of implementation. Amongst other functions, this assessment will provide vital information to identify weaknesses in student learning that require attention in teacher education programs.

55. Through support to these two priority areas it is expected to increase equitable access to good quality teaching and learning environments in government secondary schools. SEQUIP is expected to deliver the following results after five years:

Results Area 1: Adequate and good quality learning environments.

- A needs-based expansion of secondary schooling targeting underserved areas.²⁵
- Reduced gender gaps in secondary school enrolment and performance.
- Expanded access and reduced class sizes in science and mathematics.
- Better school water and sanitation facilities.
- Provision of adequate and good quality teaching and learning materials.
- Improved access to practical science through laboratory provision and innovative approaches to science teaching (e.g. science kits).

Results Area 2: Adequate teachers with the skills and motivation to teach all students.

- Sufficient mathematics and science teachers in secondary schools.
- Skills. Improve the quality of teaching through regular training that provides skills to identify and support at-risk learners, greater system support to teachers through improved school leadership, use of ICT and online resources for science and mathematics and improved assessment.
- Motivation. Stronger financial and non-financial incentives for teachers.

By achieving these results the Program is expected to improve secondary school learning outcomes that will contribute to a step increase in labor force skills and an improvement in the quality of the teaching force.

56. Gender differences in secondary school performance will be addressed directly in both results areas. In the first results area, reducing the large gender disparities in transition rates between lower and upper secondary is a key result and will be supported through the implementation of a new inclusive education strategy. In the second results area, a central component of the envisaged in-service teacher training will be to equip teachers with the skills to support at-risk learners and particularly girls. The results area also focuses on providing incentives for teachers to focus on girls' performance.

57. The Program will support an enhanced grievance redress mechanism (GRM) at LGA and

²⁵ Underserved areas are defined as LGAs where secondary school places are below average when compared to the size of the secondary school aged population.

school levels to allow students and other stakeholders to raise concerns on education matters. In particular, the GRM will include mechanisms to address negative behaviors in school including sexual violence, and unfair treatment of disadvantaged students in general. The Program will ensure that knowledge about and information of the GRM will be made available at the early stages of implementation, in addition to including information on the GRM in all in-service teacher training modules.

58. **The use of ICT provides opportunities to support the teaching and learning process particularly in mathematics and science in secondary school.** The use of ICT is also becoming more pervasive in both economic and social life and Tanzania risks falling behind without efforts to integrate its use in the education system. There are many different uses for ICT in education but there are also many constraints (e.g. lack of electricity, connectivity, cost of hardware and maintenance). Tackling all constraints at once is unlikely to be feasible in the current secondary school context. SEQUIP will focus on strengthening the use of ICT to support teachers in teaching science by a) providing ICT hardware to support science teaching and b) providing science teachers the skills to use ICT effectively and c) use ICT to support teacher professional development. Tanzania’s current ICT strategy for basic education was developed in 2007. SEQUIP will support the updating of this strategy in the three areas outlined and the development of an action plan that will be used to strengthen teacher professional development.

59. **ICT will be used to support achievement of results in both areas.** In Results Area 1, the Program will develop curriculum mapped digital teaching-learning materials and formative assessment tools, in mathematics and science, to supplement textbooks. This will involve the use and adaptation of open source materials and the provision of ICT equipment to secondary schools. In Results Area 2, teacher training packages will be delivered, in part, using ICT and teachers will be trained on how to use ICT effectively for teaching.

V. Environmental and Social Effects

25. **The recent environment and social systems assessment undertaken for the SEQUIP operation between September 2017 and January 2018 concluded that in general, the national regulatory framework for environmental and social management in Tanzania is consistent with the Bank PforR Policy and Directive in terms of principles and key elements.** The legal framework provides a reasonable basis for addressing environment, health, safety and social issues likely to arise from the TA activities. Technical guidelines and national plans/programs exist for environmental and social due diligence with respect to education. Moreover, Environmental and Social Management Frameworks under previous World Bank funded education projects have been deemed satisfactory in their implementation.

VI. Financing

Program Financing (\$ Million)

Source	Amount	% of Total
Government	779	72
IBRD/IDA	300	28
Other Development Partners	-	
Total Program Financing	1,079	100

VII. Program Institutional and Implementation Arrangements

60. **SEQUIP will be implemented by MoEST and PO-RALG.** MoEST will be responsible for overall implementation, setting of standards, and conducting examinations, and PO-RALG, through the LGAs, responsible for day-to-day implementation of school-level activities. The Director of Policy and Planning within MoEST serves as the primary day-to-day Program Coordinator, with the Director of Basic Education at PO-RALG as the counterpart coordinator; both are supported by a cross-Ministerial Program Coordination Team.

61. **PO-RALG and individual LGAs will be responsible for implementing school infrastructure improvements and providing teaching and learning materials to schools.** They will also organize and deliver in-service training in collaboration with MoEST including its School Quality Assurance unit. MoEST and PO-RALG jointly decide on teacher hiring with PO-RALG and the Teacher Service Commission allocating teachers to the school level.

62. **Overall strategic oversight of SEQUIP is under the responsibility of the Senior Management Team (SMT), co-chaired by the Permanent Secretaries of both PO-RALG and MoEST.** This body provides strategic direction and a more equitable voice for PO-RALG as a co-implementer of the Program.

63. **The implementation arrangements are the same as for the EPforR, which have been in place since 2014 and have proven to work well.** Under these arrangements, the EPforR Program Operations Manual (POM) will be updated to reflect SEQUIP activities and will be consolidated as one document for both Programs. Additionally, the EPforR and SEQUIP bi-yearly implementation meetings will be held jointly under the scope of one large Program. Different verification mechanisms will be used for the EPforR and SEQUIP due to the difference in verification needs, and differences in donor support for the verification of the EPforR.

Technical Assistance

64. **Program support will also include capacity building at the central and local implementation level – region, district, local government authorities, and wards – through the capacity building IPF component.** This will help provide capacity building aimed at: (i) implementation-level stakeholder mapping and identification of implementation bottlenecks; (ii) familiarizing implementation-level actors with Program results, operational manual, and monitoring systems; and (iii) designing mechanisms at the local level to enhance the effectiveness of training of trainers' model, use of data for planning, and effective utilization of capitation grants. This TA will be provided in the first two years of Program implementation.

65. **Following SEQUIP effectiveness, six-monthly Implementation Support Missions (ISMs) will be held in the period November-December and June-July each year.** These missions will be coordinated with the EPforR ISMs. The objective of these missions is to monitor progress, address implementation and financial issues, and, where necessary, proposing adjustments to DLI and verification processes for consideration by the GoT. The November-December missions will be integrated where possible with the Annual Joint Education Sector Review process.

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