UNITED REPUBLIC OF TANZANIA

SECONDARY EDUCATION QUALITY IMPROVEMENT PROGRAM FOR RESULTS (SEQUIP)

DRAFT ENVIRONMENT AND SOCIAL SYSTEMS ASSESSMENT (ESSA)

Prepared by the World Bank

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List of Acronyms

3R	Reading, Writing, Arithmetic
BEST	Basic Education Statistics in Tanzania
BRNEd	Big Results Now for Education
CAS	Country Assistance Strategy
CIDA	Canadian International Development Agency
CRB	Contractor Registration Board
CSO	Civil Society Organization
DfID	(UK) Department for International Development
EIA	Environnemental Impact Assessment
EIS	Environmental Impact Statement
EMA	Environnemental Management Act
EMIS	Education Management Information System
EMP	Environnemental Management Plan
EPforR	Education Program for Results
ESDP	Education Sector Development Plan
ESIA	Environnemental and Social Impact Assessment
ESMF	Environnemental and Social Management Framework
ESMP	Environnemental and Social Mitigation Plan
ESSA	Environmental and Social Management System Assessment
EWURA	Energy and Water Utilities Regulatory Authority
FBEP	Free Basic Education Policy
GDP	Gross Domestic Product
GoT	Government of Tanzania
LGA	Local Government Authority
MLHHSD	Ministry of Lands, Housing and Human Settlements Development
MoEST	Ministry of Education, Science and Technology
NEMC	National Environmental Management Council
NEP	National Environmental Policy
NGO	Non-Governmental Organization
OHS	Occupational Health and Safety
OSHA	Occupational Safety and Health Authority
PAP	Program Action Plan
PAP	Project Affected People
PDO	Program Development Objective
PEDP	Primary Education Development Program
PforR	Program for Results
PO-RALG	President's Office – Regional Administration and Local Government
SEDP	Secondary Education Development Program

SEQUIP	Secondary Education Quality Improvement Program
SIDA	Swedish International Development Cooperation Agency
SIG	School Incentive Grant
STEP	Student Teacher Enrichment Program
ToR	Terms of Reference
ULGA	Urban Local Government Authorities
ULGSP	Urban Local Government Strengthening Program
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

This is a Program for Results (PforR) lending operation. The implementation of the activities under the Secondary Education Quality Improvement Program (SEQUIP) will rely on the existing national legal framework and institutional systems that the counterpart uses to manage environmental and social risks. The purpose of this Environmental and Social System Assessment (ESSA) is to provide a comprehensive review of relevant environmental and social management systems and procedures in Tanzania, identify the extent to which the national systems are consistent with the Bank Policy and the Bank Directive for PforR, and recommend necessary actions to address eventual gaps as well as opportunities to enhance performance during the Program implementation.

The ESSA concluded that Tanzania, in general, has established a comprehensive set of environmental and social management systems to address the environment, health and safety, as well as social concerns related to the Program. Such systems are principally well-aligned with the core principles and key planning elements as defined in the Bank PforR Policy. However, there are certain inadequacies and gaps from the perspective of actual implementation of such system identified through this ESSA. The assessed weaknesses are related to lack of enforcement and compliance with existing laws, regulations and guidelines governing environmental and social management. In addition, inadequate attention to environmental, health and safety concerns, weak land acquisition management and resettlement practices, lack of environmental and social management data systematic collection and reporting, and weak coordination among agencies are other factors affecting the system. Awareness of the ESSA prepared for the ongoing EPforR among the program implementing agencies is low; thus, some recommended actions are proposed to address these shortcomings and are included in Disbursement Linked Results and the Program Action Plan for the Program.

Environmental and Social Effects of the PforR Program

The Program is to enhance equitable access to and improve teaching and learning environments in government secondary schools with a focus on mathematics and science. The Program scope will include school construction.

Environmental and Social Benefits

The Program will support the lower and upper secondary education components of the ESDP for a five-year period to June 2023. It will only support aspects of the government's program that are not already covered by the ongoing Education Program for Results program. 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 and cash transfer programs. It continues to provide an important opportunity to enhance environmental and social systems with regard to ensuring safe, clean and sustainable surroundings in schools, which is recognized as a basic prerequisite for ensuring a conducive learning and teaching environment and quality.

The program interventions are not expected to have physical footprints in terms of loss of land or assets/livelihood etc., since land acquisition is not envisaged and all intended constructions will be within existing boundaries of school properties. Furthermore, the Government of Tanzania is making efforts to be inclusive of all groups without discrimination in its school system. The SEQUIP Program will enhance equitable access of all social/economic groups, vulnerable and other less advantaged groups, and underserved regions as well as improvements in gender equity in lower and upper secondary school enrolments and improvements in the proportion of schools with adequate learning environments. The program will also target for better institutional functioning for results by enhancing capacity of implementers from national level to school boards as well as enhancing social accountability and grievance redress measures.

Environmental and Social Impacts and Risks

The Program will finance physical school constructions, the anticipated adverse environmental impacts are associated with school constructions, including handling of hazardous materials if any, dust, noise and construction waste. The potential environmental risks include: (i) inadequate water supply and sanitation facilities as well as electricity, (ii) weak compliance and enforcement of environmental and social requirements, (iii) lack of awareness and capacity of sanitation, hygiene, and environmental and social protection and management, (iv) inadequate safe drinking water, (v) unsafe building materials and unmaintained building structure, (vi) inadequate facilities and access for physically challenged in all schools, and (vii) lack of integration and networking/collaboration.

The anticipated negative social impacts of the program are not expected to be significant but sufficient to require attention to improve the quality and social sustainability of the program. Therefore, the program will address the following assessed social risks: (i) inclusion (better vs. poor performers, the vulnerable and disadvantaged, rural vs. urban, etc.), (ii) inequities in distribution of teachers across geographical regions and between schools), (iii) stakeholder participation (at national, subnational, community, school and parents levels), (iv) gender (equity in lower and upper secondary school enrolments for both boys and girls), (v) challenges of capacity to supervise social standards, (vi) lack of a grievance redress mechanism at school, community, council and coordinating agency levels, (vii) safety of pupils and communities during construction, (viii) sexual harassment and sex abuses leading to early pregnancy and (ix) poverty leading to truancy and absenteeism.

Recommendations for Environmental and Social Management Actions

Objective	DLRs	Environmental and Social Management Actions
To improve environmental and social management systems in education sector	DLI 3 Percentage of secondary schools in each LGA with minimum infrastructure package	Under the ongoing EPforR, the following actions will be taken. • The national guidelines on school construction will be reviewed and revised to include appropriate environmental and social management requirements in design, construction, operation and maintenance of school infrastructures. • Additional guidelines for promoting sustainable and "greener" building designs, as well as designs taking into account students with disabilities, greener measures to allow better resource management and larger involvement of beneficiary communities for supervising works, payment to contractors, contribution to school facilities improvement including aspects from the National School WASH Strategic Plan, maintenance of facilities will also be considered during the review and revision of national guidelines for school construction. • The School Construction Strategy will clarify agencies, roles and responsibilities, as well as incentives and training for monitoring and reporting of implementation of the environmental and social management requirements in school construction. And where land appropriation and resettlement becomes necessary, the strategy should seek to adopt measures and guidelines consistent with Bank policies. • School construction under the SEQUIP program should follow the updated national guidelines on school construction and the School Construction Strategy.
	Program Action Plan	The Program coordination team will include qualified environmental and social specialists.
To improve capacity for supervision of environmental and social performance (improve enforcement)	Program Action Plan	Secondary school level data on access/availability of electricity and number of water points and source are available.

Objective	DLRs	Environmental and Social Management Actions
To improve systems for Information Disclosure, Stakeholders Consultation and Voice without fear of Retaliation	Program Action Plan	A Grievance Redress Mechanism (GRM) to be established at the school and LGA levels. The operation structure, timeline for case handling and protocols of the GRM and a complaint hotline will be crafted with stakeholder input and made available to the public and a workshop/s undertaken at early implementation stage to sensitize national and selected local governments and schools. The GRM should be enhanced and equipped across the entire system from National to School levels to incorporate inclusive education issues included in MoEST's Inclusive Education Strategy.
To Increase female transition rate between lower and upper secondary schools	Program Action Plan	Develop an approved and costed plan aligned with the Inclusive Education Strategy with actions to reduce girls' drop-out and improve education outcomes (see DLR 1.1).

Consultations and Information Disclosure

The Bank organized several technical consultations during the preparation of this Program. Consultations with MoEST, PO-RALG, Municipalities and several schools were carried out during September and November 2017. In addition, Bank Specialists undertook a series of meetings with different stakeholders including national and local government agencies and school visits. A multi-stakeholder consultation meeting will take place in Dodoma on January 11, 2018 on the draft ESSA report to receive specific feedback on its findings and recommendations. A description of the workshop, consultation participants, and main issues raised is provided in Section VII of this ESSA and will be updated with list of participants from the proposed January 11th multi-stakeholder consultations.

SECTION I: INTRODUCTION

1.1 Background

A. 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.**[1] 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, in particular, informal activities in the 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, weak governance and rapid population growth also present obstacles to faster economic development. Tanzania's recent systematic country diagnostic argues that the reforms needed to create more jobs, improve productivity and further reduce poverty require three major transformations. 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 economic integration. Third, an *institutional transformation* to upgrade the strength and the quality of public institutions to deliver good quality services effective at boosting economic productivity. However, progress in these areas is only likely if the necessary foundations, including better skills, are put in place.

4. **Despite rapid progress and high economic returns, the average skill levels of the labor force remain low.** 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

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[1] World Bank. 2017. "United Republic of Tanzania: Systematic Country Diagnostic." Report No. 110894-TZ. Washington DC: The World Bank Group.

[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.

entrants has increased, only around 10 percent of the working population have any post-primary education necessary to support the required economic diversification.

5.   **The lack of science graduates is also 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. This very low enrolment (Gross Enrollment Ratio of only 4 percent in 2014) has its roots in low levels of completion and poor learning outcomes in secondary education.

6.   **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 can contribute to better overall levels of human capital and support the transformations necessary to accelerate rates of equitable economic growth.

B.   Sectoral (or multi-sectoral) and Institutional Context

7.   **Over the last 10 years, there have been improvements in secondary education outcomes.** Enrolments in lower and upper secondary have increased substantially from 675 thousand in 2006 to 1.8 million in 2016. 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 (Figure 1). Inequalities in education access have also narrowed. For example, gender gaps in lower secondary access, 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 thousand to 420 thousand 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.

8.   **Despite recent improvements in enrolment, access to secondary education in Tanzania is still low compared to other comparator countries (Figure 1).[5]** Differences are widest at upper secondary - in 2014, the Gross Enrolment Rate was seven percent compared to a low-income country average of 32 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

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

[5] 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.

compared to 41 percent for the wealthiest households. These are partly driven by regional disparities; net attendance ratios for households in Mjini Magharibi were 56 percent compared to 11 percent in Rukwa. [6]

Figure 1: Trends in secondary school enrolment rates

Trends in enrolment rates in Tanzania, 2006-2016

Secondary education enrolment rates in 2013, selected countries
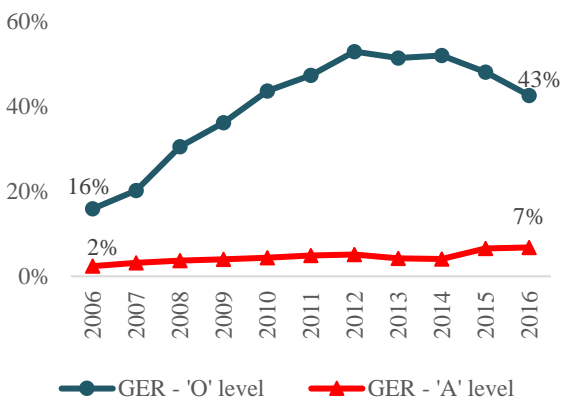
Note: Lower secondary 'O'level cycle lasts for four years and upper secondary 'A' level for two years.

Note: Gross enrolment rates for lower and upper secondary combined. LIC – low income country average, LMIC – lower middle income average.
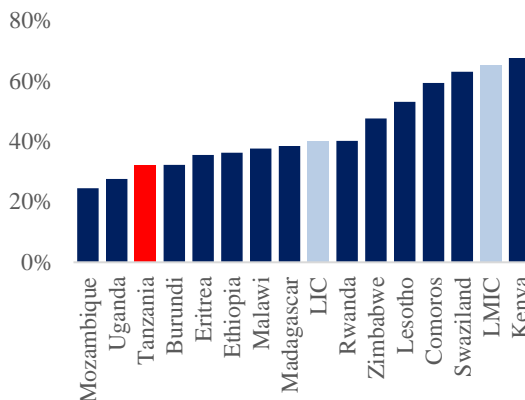
9.   **Secondary enrolment in science and mathematics lags far behind other subjects.** In lower secondary, only 33 and 44 percent of students sat for physics and chemistry 'O' levels. This limits the number of children taking science and mathematics subjects in upper secondary. In 2015, the secondary education system produced less than 18,000 successful mathematics and science graduates equivalent to about 2% of the relevant age cohort.

10.   **Only around two-thirds of students in the last grade of primary successfully pass the leaving exam and enroll in lower secondary.** Once in secondary school, student drop-out is relatively high in all grades but peaks after examinations at the end of Form II and during transition from lower to upper secondary (Figure 2). Drop-out rates tend to be lower for girls in lower secondary. However, fewer girls than boys that reach the end of lower secondary (Form IV) continue to upper secondary because of their poorer Form IV examination results. 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. Combined with relatively low levels of access, the proportion of youth that complete lower and upper secondary education is low and 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

11.   **In 2015, less than a quarter of mathematics students and only half of students in most other subjects passed the Form IV (lower secondary) examination (Figure 2).** Except for Kiswahili, boys

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[6] 2015/16 Demographic and Health Survey.

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 a half of the boys. 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 IV has been a key determinant of access to upper secondary with students achieving a Division III pass or higher generally gaining admission to upper secondary. 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. However, pass rates at the lower Division IV level have also declined as overall levels of secondary enrolment have increased and this suggests that greater access has had a negative impact on quality.

Figure 2: Secondary school progression and examination results

Secondary education cohort survival, 2015

Form IV examination results, (% passes, 2015)
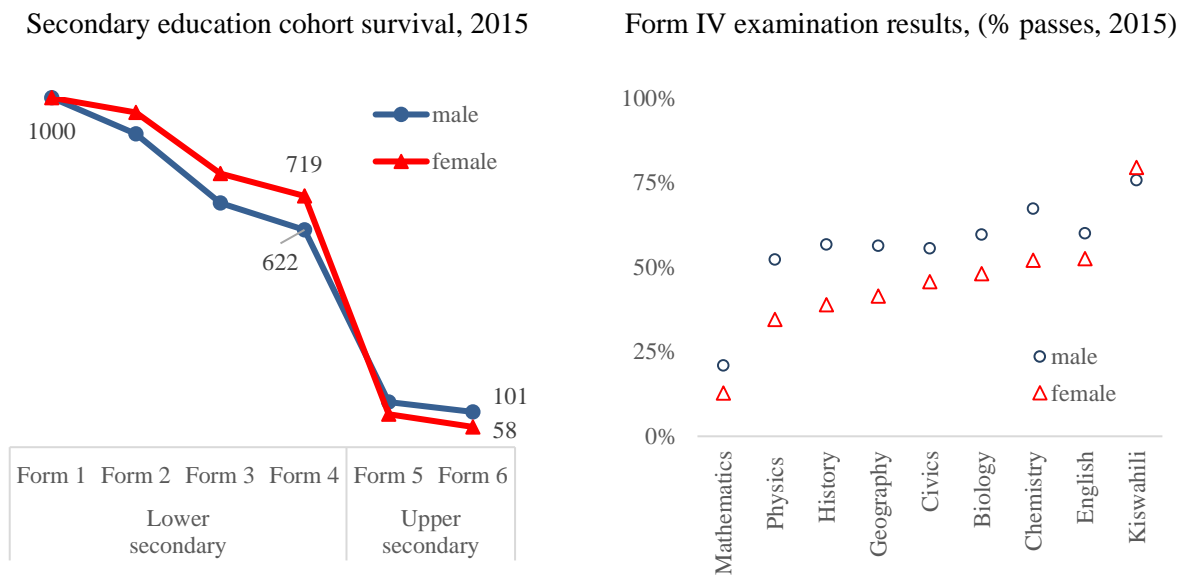
Note: the chart shows the number of students that successfully complete each grade for every one thousand students that start secondary school.

12.   **Progress in primary education and recent policy changes will address some of the challenges but at the same time add further pressure on the secondary system.** Interventions in primary education, supported by the Education Program for Results (EPforR) operation have increased the quality and efficiency of primary education. For example, students in Grade 2 have increased their average reading fluency from 18 to 24 words per minute between 2013 and 2015/16. These improvements will mean that students entering secondary school in the future will have stronger learning foundations and better preparation for further study.

13.   **The government's announcement in 2016 of the Free Basic Education[7] Policy (FBEP) has also 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. Indications are that the policy has led to a larger than expected surge in pupil enrolment in pre-primary and primary schools, with the number of students entering primary Standard 1 increasing by 41 percent in 2016.

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[7] Pre-primary, primary and lower secondary.

14.   **However, it also adds significant pressure on the secondary school system and improving education quality in this context 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 few years, exacerbating pressure on facilities, teaching and learning materials, and teacher staffing. Estimates suggest that enrolment in secondary schools will increase by 41 percent between 2015 and 2021 from 1.8 to 2.5 million.[8] While the experience in Sub-Saharan Africa of abolishing primary school fees shows that countries, including Tanzania, can expand school enrolment at this pace, over the last five years relatively few countries have managed this in secondary. Improving quality at the same time will prove a significant challenge.

Addressing these challenges will require actions to provide adequate and good quality learning environments and improve the skills and motivation of secondary school teachers.

Learning environments

15.   **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.[9]

16.   **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.[10] 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 (Figure 3). 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.[11]

17.   **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

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[8] URT. 2017. "Education Sector Development Plan (2016/17 – 2020/21): Tanzania Mainland".
[9] URT. 2017. "Secondary Education Development Programme III (July 2017-June 2022)".
[10] Sperling, G., and R. Winthrop. 2016. What Works in Girls' Education: Evidence for the World's Best Investment Brookings Institution. Washington D.C.
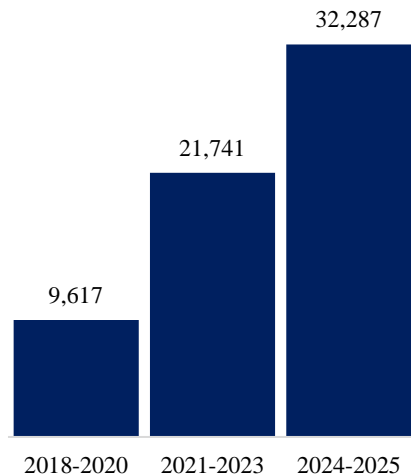[11] UNESCO. 2011. "Tanzania: Education Sector Analysis".

elements of the existing secondary school infrastructure package are expensive and evidence suggests can 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 due to their high cost for both government and parents they can hamper efforts to universalize basic education and are often not as cost-effective as day schools.[12] 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, evidence suggests that 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. [13] Teacher deployment at the national level also means that teachers are often posted away from their home regions and are provided housing which adds further to the costs of the traditional school package. Finally, there are 14 subject choices at lower secondary and 27 at upper secondary which in terms of the subject teachers needed can also add significantly to costs.

Teacher skills and motivation

18.   **Building a competent and effective teaching force is critical if the secondary education 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 Free Basic Education Policy. Taking into account teacher attrition this will require a significant increase in teacher hiring (Figure 3).

Figure 3: Secondary school teacher requirements

Average annual teacher hiring needs, 2018- 2025   Raw secondary school teacher surpluses and shortages, 2017
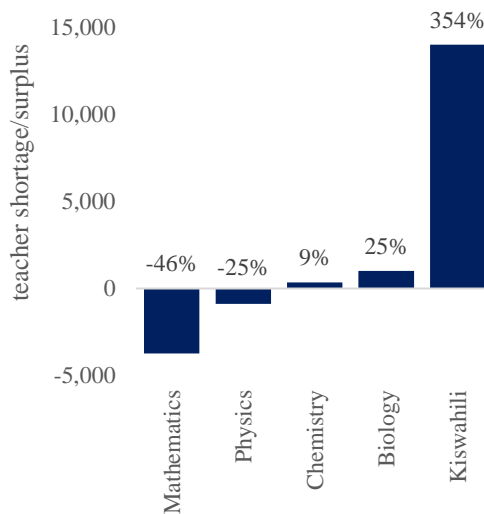
Note: Right panel – estimates based on curriculum requirements for subject periods, maximum class sizes and regulations on teacher workloads. Data labels show the shortage/surplus as a percentage of the total stock of subject teachers.

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[12] World Bank. 2017. Facing Forwards: Schooling with learning in Africa.
[13] World Bank. 2017. Tanzania preparation of the national school construction strategy technical note.

19.   **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, teacher requirement estimates show that there are only half of the required secondary school mathematics teachers required to cover the curriculum and there are only 75 percent of the physics teachers. In contrast, there appear to be an excess of Kiswahili teachers across the system.

20.   **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 Singida and Lindi vacancy rates for mathematics teachers are reported to be above 80 percent.

21.   **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.

22.   **The limited number of upper secondary graduates is a key factor driving low uptake for pre-service teacher education courses are the limited number of upper secondary graduates.** 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 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 pursing 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.

23.   **While entry to upper secondary is based on performance in the Form IV 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 IV 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.

24.   **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.[14] 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.[15] 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.

25.   **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.[16] Without concerted actions to address these factors it is unlikely that gender gaps will close.

26.   **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 but 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.

C.   Relationship to the CAS/CPF and Rationale for Use of Instrument

27.   **The proposed operation will support the three pillars of the Country Partnership Framework (CPF) 2018-2022 expected to be approved in 2017**: (i) diversify growth and enhanced productivity; (ii) boost human capital and social inclusion; and (iii) make institutions efficient and accountable. The PforR will contribute to improving access to and raising student learning outcomes in secondary education, which will boost human capital and inclusion. It will serve as the basis for further skills development and on-the-job training as critical elements for enhanced productivity. Furthermore, the program's support to the quality assurance and monitoring and evaluation systems will contribute to greater transparency of roles and responsibilities and make public institutions more efficient and accountable.

28.   **The World Bank has been successfully supporting the basic education sector in Tanzania for 30 years.** It has been supporting quality improvements in primary and lower secondary education through the Education Program for Results (EPforR) of US$ 122 million (Credit No. TZ-55270) was scheduled to end in December 2018 but has been extended with Additional Financing of US$ 80 million until 2020. This Program has always been rated Moderately Satisfactory or better and is on track to achieve its PDO

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[14] 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.

[15] 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.

[16] 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"

indicators. In addition to the ongoing EPforR operation, the World Bank had a stand-alone secondary education project that closed in December 2016.[17] The project improved the quality of secondary education and was successful at improving completion rates and quality standards of secondary schools.

29.   **The proposed operation aims to build on the achievements of past and ongoing programs at a time of rapid secondary school expansion.** It will continue to support the government's effort to maintain the quality of teaching and learning during the expansion brought about by the Free Basic Education Policy (FBEP). It will complement the existing EPforR operation by extending some of its key elements into upper secondary. It will also provide incentives and support to implement key strategies developed under the EPforR. For example, it will support the implementation of the school construction strategy and elements of the inclusive education strategy. It will also use the primary school teacher deployment strategy developed under the EPforR as the foundation of a similar strategy in secondary education.

30.   **The program will also provide a stronger focus on ensuring that different elements of the education system are aligned and work together to support teaching and learning.** Previous support has tended to identify and implement specific interventions to a problem. For example, problems of teacher skills have been tackled by developing high quality short period training interventions. However, the lack of incentives for teachers to utilize the skills they gain in the classroom and limited monitoring has meant that the teaching and learning experience has changed very little. In other cases, classrooms have been constructed but the other inputs (e.g. teachers, textbooks) have not been provided at the same time. The proposed program aims to address these issues by ensuring that constraints are tackled together to ensure alignment between different elements of the education system. For example, incentives are in place to encourage teachers to utilize the skills they obtain through training, learning assessments track progress and head teachers and inspectors monitor and support implementation.

31.   **A PforR with a small IPF component to support implementation and build implementation capacity is the proposed financing modality for the program.** The education sector in Tanzania has had considerable experience of utilizing a PforR instrument. The approach has provided incentives to the main actors to focus on achieving the key results of the Education Sector Development Plan and has also built capacity to monitor education outcomes more consistently. This has built commitment among MoEST, PO-RALG and the local government authorities to achieve a common set of results. It has also provided flexibility across schools and local governments to choose the right underlying activities to achieve the results in their own contexts. A PforR is also well suited to tackling the issues of incoherence among different inputs experienced under the previous secondary education project. A small IPF component is also included to provide focused support to build implementation capacity in the relevant agencies, help to mitigate against identified implementation risks and support the program action plan. It will also support the development of important strategies and plans (e.g. LGA school infrastructure plans) required for the successful and efficient implementation of the program.

1.2 Objectives and Scope of the ESSA

•   This is a PforR lending operation. The implementation of the activities under the PforR (Program) will rely on the existing national and provincial legal framework and institutional systems that the counterpart uses to manage environmental and social risks. The purpose of this ESSA is to provide a comprehensive review of relevant environmental and social risk management

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[17] Secondary Education Development Project II, Credit No. 4748-TZ.

systems and procedures in Tanzania, identify the extent to which the country/local systems are consistent with the PforR Bank Policy[18] and the Directive[19], and recommend necessary actions to address eventual gaps as well as opportunities to enhance performance during implementation.

- According to the PforR Bank Policy, the ESSA considers, as may be applicable or relevant in a particular country, sector, or Program circumstances, to what degree the Program Systems:

    a) Promote environmental and social sustainability in the Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the Program's environmental and social impacts
    b) Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program
    c) Protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards
    d) Manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards
    e) Give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups
    f) Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

- Specifically, the main tasks of the ESSA are to:
    a) Review the national legal policy framework related to environmental and social risk management applicable to the Program;
    b) Review management and implementation procedures of environmental and social risk management systems, especially those relevant to the activities supported under the Program;
    c) Review and assess the institutional capacity of various relevant agencies involved in the environmental and social impacts management during implementation; and
    d) Recommend actions to improve the performance of existing systems in line with the core principles of the PforR instrument.

- The ESSA provides a reference that is used to monitor environmental and social systems performance during the Program implementation, and identifies actions, as needed, to enhance the systems during the Program preparation and implementation (the latter are included in the Program's Action Plan). The environmental and social risks, and proposed mitigation measures, as appropriate, are inputs to the integrated risk assessment of the Program. The assessment includes

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[18] OPCS5.04-POL.01, July 10, 2015
[19] OPCS5.04-DIR.01, July 10, 2015

a review of the arrangements by which the Program activities that affect the environment and communities, and will be disclosed, consulted upon, and subject to a grievance redress process and proposes actions and measures to address potential impacts from the activities to be supported under the Program.

1.3 Methodology

- The ESSA is a World Bank document prepared by Bank staff and consultants through a combination of reviews of existing materials and available documents related to activities to be supported under the Program, interviews with government staff, and consultations with key stakeholders and experts. In developing the ESSA, the Bank undertook the following tasks:

   a) Reviewed existing laws, policies, regulations, frameworks and guidelines with regards to environmental and social risk management, as well as the national programs associated with the Education sector in general and Secondary Education in particular;

   b) Conducted meetings and interviews with different stakeholders ranging from provincial level agencies to district/county level agencies, particularly those involved in the environmental and social assessment as well as planning, implementation and monitoring of activities to be supported under the Program, and visited a sample of schools;

   c) Assessed the environmental and social management system in place relative to the PforR Bank Policy and Bank Directive;

   d) Assessed the capacity and performance of involved government stakeholders;

   e) Recommended actions and measures to enhance environmental and social management capacity and performance during implementation of the proposed Program.

- Before appraisal of a PforR Program, and as part of the ESSA, the Bank makes the draft assessment publicly available. The Bank subsequently consults with the Program stakeholders on the draft assessment. The Bank makes the final assessment publicly available. In addition, the PID, which is made publicly available at the concept and appraisal stages, includes information about the environmental and social issues related to the Program.

- Initial consultations were carried out in September and November 2017 to better understand the environmental and social systems in the country and the environmental and social concerns of stakeholders and plan is in place to seed feedback from multi-stakeholders in January 2018 on the findings and recommendations of the publicized ESSA draft.

SECTION II: PROGRAM DESCRIPTION

2.1 Program Contents

A.   Government program

32.   **The major objectives for secondary education are outlined in the Education Sector Development Program (ESDP, 2016/17-2020/21) and are aligned with Tanzania's overall Education and Training Policy (ETP, 2014).** The main ESDP targets relevant for secondary education include:

- Universalize basic education. It is expected that by 2020, 75 percent of children reaching the end of primary will continue into lower secondary compared to 66 percent in 2015. The ESDP also includes targets to reduce drop-out and increase survival rates in lower secondary.
- Increase transition to upper secondary. It is expected that a greater proportion of lower secondary completers will continue their education and training through increase in the numbers going into upper secondary general education as well as into technical and vocational education.
- Improved student learning outcomes. The ESDP targets an improvement in Form IV ('O' level) and Form VI ('A' level) examination pass rates.

33.   Strategies to achieve these goals in basic and upper secondary education are organized under three main components in the ESDP:

- *Access, participation and equity in basic and secondary education*. Activities identified include; expanding and improving the number of classrooms, schools and water and sanitation facilities; build capacity to identify and support marginalized and vulnerable children, expand incentives to attract new entrants in pre-service teacher training in Math and Sciences subjects; training of 3,600 teachers in guidance and counselling; and increasing support for vulnerable children.
- *Quality of basic and secondary education*. Activities include; developing the quality assurance framework; revising textbooks and teacher guides and ensuring availability in all schools; increase availability and quality of in-service training; developing teacher training packages in key subject areas; develop a system for assessing learning; developing and implementing career progression mechanisms based on competencies and performance; updating and implementing minimum standards of quality learning environments in line with ETP; reviewing school leader recruitment criteria, training and certifying school leaders; and building school committee/board capacity.
- *System structure, governance and management*. Activities include; strengthened coordination between institutions involved in secondary education; capacity building of national, regional and local officials; harmonizing EMIS systems; reviewing and improving information systems for quality assurance and school-based continuous assessment.

B. Program Development Objective/s (PDO) and key results

34.   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.[20]

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[20] Science refers to biology, chemistry and physics.

35.   Enhanced equitable access is defined as improvements in gender equity in lower and upper secondary school enrolments and improvements in the proportion of schools with adequate learning environments.

36.   To improve the proportion of schools with the necessary package of complementary inputs necessary for effective teaching, adequate learning environments are defined as schools with:

- 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
- mathematics and science classes with correct textbooks and teacher guides
- ICT material package for science and mathematics teaching
- adequate mathematics and science teachers to fulfil curriculum standards for class size, subject hours, and teacher workloads

37.   Proposed PDO indicators:

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

38.   Key program results. The Program is expected to deliver the following results after five years:

Results Area 1: Adequate learning environments to support teaching and learning.

- A planned expansion of secondary schooling addressing underserved areas
- 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 and virtual laboratories)

Results Area 2: Teachers with the skills and motivation to teach all children.

- 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

39.   **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. Specific improvements in facilities are expected to have larger impacts on girls' performance. For example, improved water and sanitation facilities in schools are especially important for

the well-being of adolescent girls making the transition to puberty and can support better school attendance and performance. 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.

C. Disbursement Linked Indicators and Verification Protocols

40. **A subset of the results included in the ESDP secondary education program will be chosen as Disbursement Linked Indicators.** Table 4 provides a summary of the DLIs. They aim to focus on indicators that are critical to achieving sub-sector objectives and can be practically measured, monitored and verified. During the DLI selection process, lessons learned from the Secondary Education Development Project II (SEDP II), potential implementation bottlenecks and evidence from local and international literature have been take into consideration. It is expected that initial targets for some of the DLIs will include foundational activities necessary for achievement. For example, developing appropriate training modules and modalities are included as early targets for DLI 7.

Table 2: Disbursement Linked Indicators for SEQUIP

DLI	Description	Data source
Results Area 1: Improved access to good quality learning environments to support teaching and learning for all students		
1.	Increase in female transition rate between lower and upper secondary schools	EMIS
2.	Increased number of students successfully completing mathematics and science subjects in upper secondary schools	EMIS
3.	Percentage of secondary schools in each LGA with minimum infrastructure package: – student classroom ratios of 40:1 or less – student latrine ratio of 20:1 for girls and 25:1 for boys – at least one multipurpose science laboratory	EMIS
4.	Percentage of schools with adequate teaching and learning materials for mathematics and science in use in schools: – student textbook ratios in mathematics and science subjects of 1:1 – teacher: teacher guide availability of 2:1 in mathematics and science – ICT package for science streams	EMIS
Results Area 2: Teachers with the skills and motivation to teach all students		
5.	Increased and improved supply and distribution of secondary school mathematics and science teachers to achieve teacher deployment strategy standards	EMIS
6.	Establish a Form IV national assessment to support school quality improvement	Student assessment reports
7.	Improved classroom teaching practice through the development of an ICT strategy for teacher professional development and regular in-service training	School quality assurance reports
8.	Number of teachers that receive teacher recognition awards based on performance	Accounting system reports
9.	Reduction in the percentage of secondary schools in each LGA in the lowest School Quality Assurance category	School quality assurance reports
Program DLI		
10.	Released bi-annually total level of funds per agreed SEQUIP Budget Framework	Financial management report

D. Capacity Building and Institutional Strengthening

41.   **The scope of the proposed operation will also include a capacity building IPF component of US$ 10 million.** This component is designed to identify critical trade-offs in secondary school expansion, conduct needs assessments in LGAs, analyze the cost-effectiveness and sustainability of proposed approaches in responding to the challenges emerging in the secondary education sector. TA support provided by DFID for the EPforR created an implementation feedback loop encouraging adaptive learning and timely course correction that has proved critical in keeping implementation on track. The free basic education policy and the expected increase in lower and upper secondary enrolments creates TA needs beyond current EPforR activities, which will be supported through the proposed operation.

42.   **The purpose of the IPF component is to provide implementation support and build the capacity of MoEST and PO-RALG to manage sector expansion**. In particular, it will provide support to build sustainable capacity for effective policymaking, planning, implementation and monitoring and evaluation**.** Specific capacity building will focus on MoEST and PO-RALG departments and units that are involved in the planning and management of the secondary education sector. This will include but will not be limited to secondary education departments and will include units responsible for policy and planning and Education Management and Information Systems. It will also include semi-autonomous institutions under MoEST including the National Examinations Council of Tanzania (NECTA) and the Tanzania Institute of Education (TIE). The IPF component will provide resources for the government to develop the strategies and costed plans that are included in the SEQUIP program. Support will take the form of consultancy services to support implementation, additional human resources and equipment as well as needs specific training for relevant staff. Attention will be given to the capacity building of staff specifically responsible for the implementation of PforR activities including addressing the environmental and social risks identified in the ESSA.

43.   A detailed capacity needs assessment will be conducted within 3 months of program effectiveness to identify specific capacity building needs of MoEST, PO-RALG and associated agencies. The needs assessment will include a costed action plan. Activities that the IPF component will support include:

- *Strategy development.* The IPF component will support the development of a national secondary school teacher deployment strategy and an ICT strategy for teacher professional development. These strategies will require a situational analysis, evaluation of existing policies and initiatives as well as reviews of best practice from other countries. It is expected that implementation plans for these strategies will also be supported under the IPF component.
- *Action plans.* The IPF component will also support the development of costed action plans to implement existing strategies. For example, the component will support an infrastructure needs assessment in each LGA and develop costed LGA plans aligned with the new school construction strategy. It will also support elements of the inclusive education strategy through the development of an action plan to improve girls' secondary school education outcomes.
- *Design and implementation of national Form IV assessment*.
- *Piloting and evaluation of gender and ICT initiatives*. The component will also support appropriate evaluation of existing and new initiatives in key program areas. For example,

it will evaluate existing and future ICT initiatives to support teaching and teacher professional development as well as initiatives to support girls' education.

- *Development of professional development modules.* The program will support the development of a series of in-service training modules (e.g. mathematics, science, ICT, identifying and supporting at-risk students). The IPF component will support the production of these in-service training modules and associated monitoring and evaluation tools.
- *Program monitoring.* Further development of the EMIS system to improve information for education planning in secondary schooling with a focus on improving information on teachers (e.g. subjects taught, trainings needed and received)
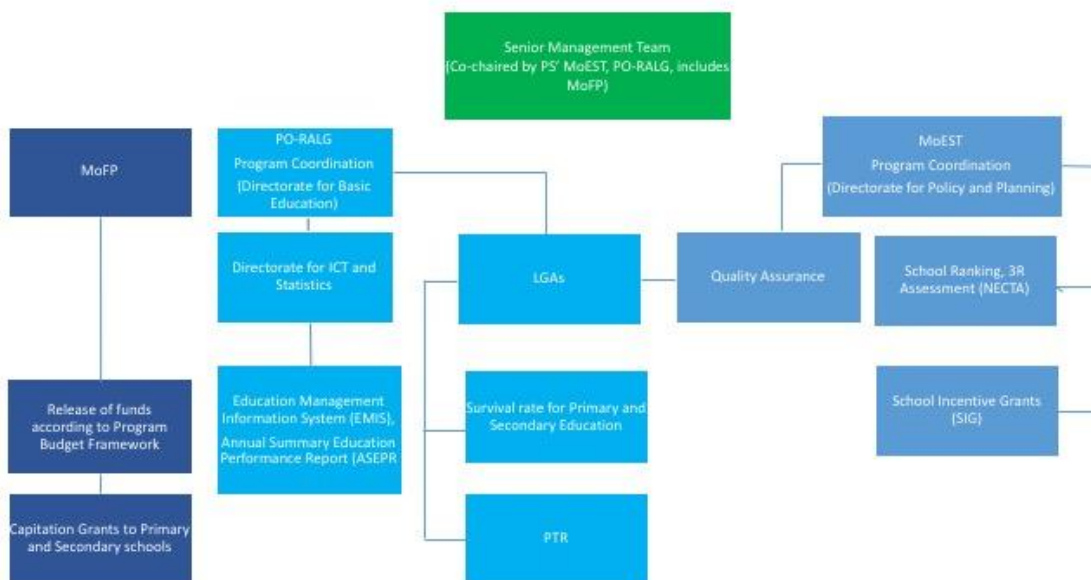- *Training and support for Safeguards Focal Points.*

2.2 Institutional Arrangement for Implementing the SEQUIP Program

44. **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.

45. **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...

46. **The proposed implementation arrangements are the same as for the EPforR, which have been in place since 2014 and have proven to work well (see Figure 4).** Under these arrangements, the EP4R Program Operations Manual (POM) will be updated to reflect SEQUIP activities and will be consolidated as one document for both Programs. Additionally, the EP4R 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 EP4R and SEQUIP due to the difference in verification needs, and differences in donor support for the verification of the EP4R.

Figure 4: Program Institutional Arrangements

Senior Management Team (Co-chaired by PS' MoEST, PO-RALG, includes MoFP)

MoFP

PO-RALG Program Coordination (Directorate for Basic Education)

MoEST Program Coordination (Directorate for Policy and Planning)

Directorate for ICT and Statistics

LGAs

Quality Assurance

School Ranking, 3R Assessment (NECTA)

Release of funds according to Program Budget Framework

Education Management Information System (EMIS), Annual Summary Education Performance Report (ASEPR

Survival rate for Primary and Secondary Education

School Incentive Grants (SIG)

Capitation Grants to Primary and Secondary schools

PTR

Technical Assistance

47.   **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, ESSA report 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.

48.   **Following PforR program effectiveness, six-monthly joint Implementation Support Missions (ISMs) will be held in the period November-December and June-July each year.** These missions will be coordinated as much as possible with the EPforR ISMs. The objective of these missions are to monitor progress, address implementation and financial issues, and, where necessary, proposing adjustments to DLI and verification processes for consideration by the GoT. While November-December missions will have a lighter-touch and integrated where possible with the Annual Joint Education Sector Review process, the June-July mission will be more robust and address issues around performance and verification.

SECTION III: NATIONAL ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS Relevant to the Education Sector

49.   Tanzania has a number of policies, instruments and laws that support environmental and social management and the environmental and social assessment processes. There are a number of sectoral directives to integrate environmental and social considerations in the decision-making process. The Constitution of Tanzania 1977 (amendments in 1988), Article 27 calls upon the public to ensure that the natural resources of the country are managed properly: (i) every person is obliged to safeguard and protect the natural resources of the United Republic, State property and all property jointly owned by the people; and (ii) all persons shall by law be required to safeguard State and communal property, to combat all forms of misappropriation and wastage and to run the economy of the nation assiduously, with the attitude of people who are masters of the fate of their nation.

3.1 National Environmental and Social Management Legal Framework

3.1.1 Environmental Management

50.   **The National Environmental Policy (NEP, 1997).** The NEP provides the framework for incorporating and mainstreaming environmental and social considerations into decision-making in Tanzania. The overall objectives are to:

 a) ensure sustainability, security and the equitable use of resources without degrading the environment or risking health or safety.
 b) prevent and control degradation of land, water, vegetation and air
 c) conserve and enhance the natural and manmade heritage, including biological diversity of the unique ecosystems of Tanzania.
 d) improve the condition and productivity of degraded areas, including rural and urban settlements,
 e) raise public awareness and understanding of the essential linkages between environment and development, and promote individual and community participation in environmental action.
 f) promote international cooperation on the environmental agenda.

51.   The NEP is a comprehensive attempt to guide the conservation and management of natural resources and the environment. It provides for cross-sectoral and sectoral policy guidelines, instruments for environmental policy, and the institutional arrangements for environmental management for determining priority actions and monitoring. The NEP requires environmental education and awareness-raising programs to be undertaken in order to promote informed opinion. It encourages environmental education to be introduced into primary and secondary school curricula to inculcate values that support responsible environmental care, and discourage attitudes that are incompatible with sustainable ways of life.

52.   As stated in the NEP, the environmental objective of the Water, Sewerage and Sanitation sector is to support the overall national objective of providing clean and safe water within easy reach, to satisfy basic needs, to protect water sources and prevent environmental pollution. The

NEP requires planning and implementation of water resources and other development programs in an integrated manner and in ways that protect water catchment areas and vegetation cover and promotion of technology for efficient and safe water use.

53.   Apart from the State of Environment reports which are meant to provide regular assessments of status and trends of environment resources that sustain the economy, there has not been systematic monitoring of progress of implementation of the NEP and no reviews of environmental performance are undertaken annually. There are no published documents/reports on monitoring and reviewing environmental performance.[21] It has also not been widely distributed in the Kiswahili language, which is used by the majority of the implementers, most of whom do not speak English.

54.   **The Environmental Management Act (EMA) (No. 20, 2004).** The objective of this Act is to provide for and promote the enhancement, protection, conservation, and management of the environment. This Act provides a legal framework necessary for coordinating harmonious and conflicting activities with a view to integrating such activities into an overall sustainable environmental management system by providing key technical support to Sectoral Ministries. It includes provisions for sustainable management of the environment, prevention and control of pollution, environmental quality standards, public participation, and the basis for the implementation of international environmental agreements[22]. The Act sets out the mandates (roles and responsibilities) of various actors to undertake enforcement, compliance, review and monitoring of environmental impact assessment, to facilitate public participation in environmental decision-making and to exercise general supervision and coordination matters relating to the environment. Institutionally it provides for the continuation of the National Environmental Management Council (NEMC), which is mandated to oversee environmental management issues and review programs to decide whether they need to undertake environmental impact assessment and prepare Environmental Impact Statements (EISs).

55.   The EMA has established environment units in all ministries and environmental committees at the regional, district and village levels. Within each ministry, it is the Environmental Section's responsibility to ensure that environmental concerns are integrated into Ministry's developmental planning and project implementation in a way that protects the environment. It requires project developers to develop and implement Environmental Management Plans (EMP) as well as monitor any identified environmental issues associated with their project.

56.   **The Environmental Impact Assessment and Audit Regulations (2005).** The regulations present the following EIA process in Tanzania:

    a) *Registering a project:* The proponent is required to register the project with the NEMC through submitting a project brief stating –

        i) the nature of the project in accordance with the categories identified in the Third Schedule to the EMA (2004) and the First Schedule to these Regulations;

        ii) the location of the project including to the physical area that may be affected by the project's activities;

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[21] A Review of Current Tanzanian National Environmental Policy July 18, 2008 By Maro, Paul S
[22] Environmental law in Tanzania; how far have we gone? Daniel Mirisho Pallangyo

iii) the activities that shall be undertaken during the project construction, operation and decommissioning phases;

iv) the design of the project;

v) the materials to be used, products and by-products, including waste to be generated by the project and the methods of their disposal;

vi) the potential environmental impacts of the project and the mitigation measures to be taken during and after implementation of the project;

vii) an action plan for the prevention and management of possible accidents during the project cycle;

viii) a plan to ensure the health and safety of the workers and neighboring communities;

ix) the economic and socio-cultural impacts to the local community and the nation in general;

x) the project budget; and

xi) any other information which the Council may require.

b) *Screening:* The Council shall screen the project brief guided by screening criteria as specified in the Second Schedule to these Regulations. The screening process shall be undertaken with the objective of determining whether an environmental impact assessment be undertaken.

Approval of project brief.

- On determination of the project brief, the decision of the Council, together with the reasons thereof, shall be communicated to the developer or proponent within forty-five days of the submission of the project brief.
- Where the Council is satisfied that the project shall not have significant negative impact on the environment, or that the project brief discloses sufficient mitigation measures, the Council may proceed to recommend to the Minister to approve the project.
- Approval of the project or undertaking shall be made in Form 3 specified in the Third Schedule to these Regulations.

Decision that an environmental impact statement be prepared.

- Where the Council finds that the project shall have a significant impact on the environment and the project report discloses no sufficient mitigation measures it shall require the developer or proponent to:
  ✓ undertake an environmental impact assessment in accordance with these Regulation; or
  ✓ undertake a preliminary assessment, where more information is required to determine a screening decision.

- A preliminary assessment shall proceed along the following steps:
  ✓ (a) description of the project characteristics and the affected environment;
  ✓ (b) identification of impacts on the local environment; and
  ✓ (c) assessment or evaluation of the significance of the impacts in terms of energy flow, transformation of matter, effects on sensitive ecosystems relative to the baseline state and socioeconomic impacts.

- Where the Council finds that the project shall have no significant negative impact on the environment and the project report discloses sufficient mitigation measure, it shall not require the developer or proponent to undertake an environmental impact assessment, and may proceed to recommend to the Minister for approval of the project.

c) *Conducting an EIA:* This involves the three main stages of the EIA process: scoping, preparing terms of reference, baseline studies (on the existing social, economic, physical, ecological, social-cultural and institutional environment within the project boundary area), conducting of EIA by experts and preparing an EIS.

d) *Reviewing the EIS*: A cross-sectoral Technical Advisory Committee established by the NEMC reviews the EIA. The NEMC will also invite comments from relevant Ministries, institutions and the general public and may arrange for on-site visits and determine whether to hold or not to hold a public hearing. Upon completion of the review process, NEMC shall prepare a report on the review of environmental impact statement and submit it to the Minister of Environment in accordance with section 91 of the MEA.

e) *Decision of the Minister:* The Minister will give his decision on an EIS, taking into account (i) the validity of the environmental impact assessment statement with emphasis on the environmental, economic, social and cultural impacts of the project; (ii) the comments made by relevant Ministry, institution and other interested parties; (iii) the report of the person presiding at a public hearing, where applicable; (iv) other factors which the Council may consider relevant in the implementation of the project; and (v) advice of the Director of Environment in such application. If the EIS is approved, the Minister will issue and EIA certificate.

f) *Environmental Monitoring and Audit:* The NEMC shall, in consultation with the relevant sector Ministry, Government Department, agency or institution monitor ongoing projects on a continuous basis using parameters and indicators as may be prescribed in the guidelines made by the Minister in that respect, in order to evaluate the performance of the mitigation measures following the prepared Environmental and Social Management Plan as well as the Monitoring Plan. An environmental audit (self-auditing or by NEMC) will be carried out by a qualified and authorized environmental auditor or environmental inspector who shall be an expert or a firm of experts registered in accordance with the Environmental Regulations (Registration of Environmental Experts), 2005 through questionnaires, and environmental site visits and test analysis, etc. An environmental audit report shall be reviewed by cross sectoral advisory committee for purpose of establishing the accuracy and coverage of key issues and providing appropriate recommendations for remedial measures.

g) *Decommissioning:* A decommissioning report is prepared at the end of the project life. This report outlines the restoration/rehabilitation activities to be carried out by the proponent and is lodged with the NEMC.

57. *Public participation* is required during the scoping stages and while fulfilling the terms of reference for the impact assessment of the EIA process. The proponent is responsible for identifying interested and affected parties and ensuring that all parties concerned are given

adequate opportunity to participate in the process. A public information program is initiated, and public notices are issued during the scoping and EIA stages. Whenever a strong public concern over the proposed project is indicated and impacts are extensive and far-reaching, the NEMC is required to organize a public hearing. The results of the public hearing should be taken into account when a decision is taken whether or not an environmental impact assessment certificate is to be issued.

58.   *Information Disclosure.* Subject to the freedom of access to environmental information, any project brief, environmental impact statement, terms of reference, public comments, report of a person presiding at a public hearing, environmental impact assessment statement, decision letter or any other information submitted to the NEMC under these Regulations, shall be public documents.

59.   The First Schedule of these Regulations provides a list of projects requiring EIA (A list) and a list of small-scale activities and enterprises that require registrations (may or may not require EIA) (B list). School construction is included in the list B.

60.   **Environmental (Registration of Environmental Experts) Regulations, 2005 (G.N. No. 348 of 2005).** These Regulations make provision with respect to Environmental Experts and establish the Environmental Export Committee. The Regulations provide for the certification and registration of Environmental Experts and contain rules relative to the practice and discipline of Environmental Experts and define functions, powers and internal organization of the Committee.

61.   **Environmental Management (Hazardous Waste Control and Management) Regulations (2009).** The Regulations control all categories of hazardous waste and address generation, storage, transportation, treatment and disposal of hazardous waste and their movement into and out of Mainland Tanzania. They require hazardous waste management be guided by principles of environment and sustainable development namely, the precautionary principle; polluter pays principle; and the producer extended responsibility. The Regulations places responsibility to the generator of hazardous waste for the sound management and disposal of such waste and shall be liable for damage to the environment and injury to human health arising thereby. The regulations further recognize management and control of pesticides, radioactive and industrial and consumer chemical waste to be regulated under respective legislation. The Division of Environment issued in 2013 the Guidelines for Management of Hazardous Waste.

62.   **Other Regulations under EMA.** Other regulations under the EMA also include:

   a) Fees and Charges Regulations (2007);

   b) Ozone Depleting Substance Regulations (2007);

   c) The Biosafety Regulations (2009);

   d) Solid Waste Management Regulations (2009);

   e) Strategic Environmental Assessment Regulations (2009);

   f) Air Quality Standards Regulations (2007);

   g) The Soil Quality Standards Regulations (2007);

   h) Water Quality Standards Regulations (2007);

i) Noise and Vibrations Standards Regulations (2009);

j) Environmental Inspectors Regulations (2011);

k) Control of Plastic Bags Regulations (2015); etc.

63. **Water Utilization (Control and Regulation) Act, (No. 42, 1974).** This Act, and its amendments, is the principal legislation dealing with the protection of water resources and control of water extraction for different uses. The extraction of water for different users is controlled through a "water right permit". The projects need to undertake the procedures for acquiring and managing water rights, discharges to open environment and maintenance of water quality, which are provided by this act.

64. **Water Supply and Sanitation Act (No. 12, 2009).** The legal framework for water supply and sanitation is based on this Act. The Act outlines the responsibilities of government authorities involved in the water sector, establishes Water Supply and Sanitation Authorities as commercial entities. The National Water Sector Development Strategy (NWSDS) 2006-2015 sets out a strategy for implementing the National Water Policy, which aims to achieve sustainable development in the sector through an "efficient use of water resources and efforts to increase the availability of water and sanitation services." The National Water Sector Development Program (WSDP) of 2006-2025 sets out to promote the integration of water supply and sanitation with hygiene education.

65. **The Occupational Health and Safety Act (No. 5, 2003)** aims to improve health, safety, and general wellbeing of workers and workplaces by promoting occupational health and safe practices in order to eliminate occupational accidents and diseases, hence achieve better productivity in the workplaces. In addition, it provides for the protection of persons other than those at work against hazards to health and safety arising out of or in connection with activities of persons at work. Section 15 gives powers to the Registrar of factories and workplace to enter any factory or workplace to perform his duties as provided by the Act. Section 16 requires that factories and workplace should register with Registrar of factories and workplaces before commencing operations.

66. **National Rural Energy Act, 2005.** This is an Act to establish the Rural Energy Board, Fund and Agency to be responsible for promotion of improved access to modern energy services in the rural area of Mainland Tanzania and through a Fund within the Agency Board to provide for grants and subsidies to developers of rural energy projects and for related and consequential matters.

67. **The Industrial and Consumer Chemicals (Management and Control) Act, 2003.** The Act provides for the management and control of the production, import, transport, export, storage, dealing and disposal of industrial and consumer chemicals in the country. The law provides for the registration, restrictions, prohibition and inspection of chemicals. Furthermore, it has provisions for safe handling, chemical wastes, accidents; management of spills and contaminated sites and decommissioning of plants.

68. **The Wildlife Conservation Act 2009**. The Act aims to (a) protect and conserve and administer areas with great biological diversity, including wetlands which are representative of the major wildlife habitats; (b) protect and conserve wildlife resources and its habitats in game

reserves, wetland reserves, game controlled areas, wildlife management areas, dispersal areas, migratory route corridors, buffer zone and all animals found in areas adjacent to these areas; (c) promote and enhance the contribution of the wildlife sector to the sustainable development of Tanzania; (d) promote and enhance the development of wildlife eco-system, as well as development of protected areas network; (e) support, strengthen and enlarge the wildlife protected areas network; (f) enhance the conservation of wildlife and its habitats outside wildlife protected areas by establishing Wildlife Management Areas; (g) encourage, promote and facilitate active involvement and participation of local and traditional communities in the sustainable management, use and conservation of wildlife resources; (h) integrate wildlife conservation with rural development through the transfer of the management responsibility of Wildlife Management Areas to local communities; (i) foster sustainable and legal use of wildlife resources and take appropriate measures to prevent illegal use of wildlife; (j) facilitate greater public awareness of the cultural, economic and social benefits for conserving wildlife resources; (k) mitigate human-wildlife conflicts wherever they occur; (l) create an enabling environment for the private sector to invest in different forms of wildlife utilization and conservation; and (m) enable Tanzania to participate in relevant international agreements.

69.   **The Antiquities Act, 1964 amended in 1979 and 1985.**The Act protects all relics that were made, shaped, carved, inscribed, produced or modified by humans before 1863. Also, the act protects all *monuments* (buildings, structures, paintings, carvings, and earthworks) made by humans before 1886. In addition, the act protects all objects such as wooden doors or doorframes that were carved before 1940. Under the Act, the Minister responsible for antiquities is empowered to declare protected status for any object, structure, or area of cultural value. The Act vests the Department of Antiquities ownership of tangible cultural heritage resources. Moreover, the Act prohibits the sale, exchange, and export of such cultural heritage resources without a permit. Also, it regulates cultural heritage resources research undertakings. The Act gives the Director of Antiquities the power to regulate, supervise and control tangible or physical cultural heritage resources together with research undertakings. It also gives the responsible minister immense powers to declare any area, object or structure, a monument or conservation area as a heritage site[23].

3.1.2 Social Risks Management

70.   **Land Policy (1997):** The Land Policy and the laws emanating from it address issues of land tenure; promotion of equitable distribution of land access to land by all citizens; improvement of land delivery systems; fair and prompt compensation when land rights are taken over or interfered with by the government; promotion of sound land information management; recognition of rights in unplanned areas; establishment of cost effective mechanisms of land survey and housing for low income families; improvement of efficiency in land management and administration and land disputes resolution; and protection of land resources from degradation for sustainable development.

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[23] Cultural Heritage Management in Tanzania's Protected Areas: Challenges and Future Prospects, by Audax Z. P. Mabulla and John F. R. Bower

71.   **Land Act No 4 of 1999:** Private property is given either through Granted Rights in General and Reserved Land (Land Act, Section 19) or through Customary Rights in Village land (Village Land Act, Section 22). Provision is also made for holding land by joint occupancy or occupancy in common (Land Act, Part XIII). This is under the Ministry of Lands and Human settlements.

72.   **Village Lands Act, No. 5 of 1999:** This Act requires each village to identify and register all communal land, and obtain the approval of all members of the village for identification and registration (Village Assembly, Section 13). A Register of communal land (section 13(6) is to be maintained by each village land council, and land cannot be allocated to individuals, families or groups for private ownership (section 12(1) (a)). This is also under the Ministry of Lands and Human Settlements.

73.   **Land Act, Cap.113 R.E. 2002:** The major function of the Land Act is to promote the fundamentals of the "National Land Policy", through giving clear classification and tenure of land, land administration procedures, rights and incidents of land occupation, granted rights of occupancy, conversion of interests in land, dispositions affecting land, land leases, mortgaging of land, easements and analogous rights, co-occupation and partitioning and settlement of land disputes. Section 1(4) classifies Tanzanian land into three categories: Tanzanian land falls into three categories, namely:
   a)   Reserved Land: Set aside for wildlife, forests, marine parks, etc. Specific legal regimes govern these lands under the laws which established them e.g. Wildlife Conservation Act, Cap 283 National Parks Ordinance, Marine Parks and Reserves Act, etc.
   b)   Village Land includes all land inside the boundaries of registered villages, with Village Councils and Village Assemblies given power to manage them. The Village Land Act, Cap 114 governs the land and gives details of how this is to be done.
   c)   General Land is neither reserved land nor village land and is therefore governed by the Land Act and managed by the Commissioner.

74.   All urban land falls under General Land Category, except land which is covered by laws constituting reserved land, or that which is considered hazard land. General land is governed by the Land Act. Reserved land includes environmental protected areas as well as areas intended and set aside for spatial planning and (future) infrastructure development.

75.   Rights of occupancy is given in two categories that separate the rights of citizens and noncitizens to occupy land. Section 19 (1) confers right to all citizen to occupy land; 19 (2) and 20(1) excludes non-citizen to occupy land except for purpose of investment (Tanzania Investment Act 1997). Property rights can be created over surveyed general land or reserved land; for a period of 33, 66 or 99 years; confirmed by a Certificate of Title.

76.   **Land Acquisition Act Cap118, 1967 R.E. 2002:** The Land Acquisition Act is the principal legislation governing the compulsory acquisition of land in Tanzania. Sections 3-18 of the Act empower the President to acquire land, and provide the procedures to be followed when doing so. The President is empowered to acquire land in any locality provided that such land is required for public purposes, and those who will be adversely affected to the acquiring of land by the government are eligible for the payment of compensation.

77.   **The Local Government Act, 1982 (as revised in 2002) and its amendments:** The village, district and urban authorities are responsible for planning, financing and implementing development programs within their areas of jurisdiction. Each authority has to suppress crime, maintain peace, good order and protect the public and private property. LGAs are also capable of holding and purchasing, or acquiring and disposing of any movable or immovable properties.

78.   **Gender Policies:**   There are a number of policies positively impacting gender. Important among them include: i) A Gender Policy with positive implication; ii) Affirmative Action Policy; iii) The Sexual Offences Act passed in 1998; and iv) an Action Plan against Gender Based Violence enacted in 2010.

79.   Constitution of Tanzania 1977 (amendments in 1998) Article 11
   a) Every person has the right to self-education, and every citizen shall be free to pursue education in a field of his choice up to the highest level according to his merits and ability.
   b) The Government shall endeavor to ensure that there are equal and adequate opportunities to all persons to enable them to acquire education and vocational training at all levels of schools and other institutions of learning.

80.   **Rights of the Child:** Tanzania is a signatory to the Convention on the Rights of the Child and has submitted three reports in 2013.

3.2 Technical Guidelines, National Plans/Programs and Tools Involving Environmental and Social Management

81.   **Technical Guidelines for School Construction.** The GoT, through its Ministry of Education and Culture (MoEC) established a Development Grant in 2004 with the overall objective to improve the quality of and access to secondary education in Tanzania. The architectural and engineering standards and construction guidelines, along with verification, reporting and monitoring instructions were defined in a series of Technical Guidelines and Handbook: such as Guidelines for Sanitary Facilities for Primary Schools, Guidelines for Monitoring Construction, etc.

82.   There are the following special requirements for all existing and new schools[24]:
   a) Drinking water facilities must be available or included as part of the community or DG contribution.
   b) Latrines or toilets must be available or included as part of the community or DG contribution. The Head of School must ensure that hygiene awareness training is available for students and separate latrines or toilets are allocated to girls.
   c) An effective School Construction Committee must be in place for new schools, and should be made up of at least 30% women.

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[24] Construction guidelines for secondary education development plan 2004 - 2009

83. The standardized guidelines for monitoring quality control of works includes aspects related to location and siting of school building, habitat conservation, foundations, school building design etc.

84. **National Environmental Action Plan.** Mainstreaming environmental concerns into development policies, plans and strategies is one of the priorities in Tanzanian's Sustainable Development Agenda. One of the initial mainstreaming efforts has been the preparation of National Environmental Action Plan (NEAP) in 1994. This was a response to the recommendations by the Earth Summit in 1992 held in Rio de Janeiro, Brazil. At this Summit, countries were required to prepare and implement National Environmental Action Plans.

85. The EMA 2004 also provides for preparation of the NEAP in the interval of five years. According to the Act, the NEAP is the basis for integrating environmental concerns in formulation and implementation of development plans and programs. In addition, the EMA 2004 requires Sector Ministries and Local Government Authorities to prepare their respective Environmental Action Plans in conformity with the NEAP so as ensure environmental mainstreaming at respective levels.

86. The NEAP (2012 - 2017), has been prepared to update information on natural resources and environment, and in devising strategic interventions, taking into account emerging issues. It highlights the state of the environment identifying key environmental issues. These include Land degradation; Water resources degradation and pollution; Aquatic resources degradation; Loss of wildlife habitats and biodiversity; Deforestation; Urban pollution; Climate change; Modern biotechnology; E-waste; Invasive alien species; and Biofuels. Furthermore, the NEAP sets targets and indicators for tracking implementation progress.

87. **National Strategic Plan for School Water, Sanitation and Hygiene (SWASH), 2012 - 2017.** While significant success has been made in extending access, improving quality remains a challenge. The increase of number of schools is inversely proportional with the increase of sanitation facilities. The MoEST has defined clearly the standards for school sanitation facilities. These standards include setting latrines with the ratio of one drop hole per 20 girls and one per 25 boys. In 2009, the United Nations Children's Fund (UNICEF), Water Aids and Netherland Development Organization (SNV) carried out a survey (2009) to find out the existence situation and standards of WASH facilities in schools. Survey revealed that most of the schools have not met these standards. This situation has prompted the MoEST to join effort with Development Partners to design a SWASH program in scaling up the sanitation facilities in schools. In order to embark in this situation and bring effective implementation of the SWASH program strategic plan was necessary to be developed.

88. The SWASH Strategic Plan aims at enhancing the provision of adequate safe water, sanitation and hygiene facilities as well as improving the academic performance, school attendance and overall health of school children. It acts as a guide to various stakeholders including the Government, Development Partners, NGOs, Civil Society Organizations Communities and others to work together towards attainment of better healthy learning environment among school children. It stipulates key strategic areas including policy guidelines and strategy formulation, institutional arrangements, awareness and capacity building, infrastructure development and maintenance

(including mobilization of construction resources for WASH facilities, construction and development of operation & maintenance manual and training), and cross-cutting issues (including waste disposal be separately from sanitary waste and sanitary waste be disposed through incineration) that need to be collaboratively addressed by four key Ministries. It also complements other regional and national efforts on improvement of school sanitation and hygiene contributing to a positive learning environment, quality education and health for school children. It targets to increase by 50% WASH facilities in schools by 2016/17. Future phases will be determined based on the review of the initial phase during 2012-2017.

89.   **National Guideline and its Toolkits for School Water, Sanitation and Hygiene in Tanzania, 2010, First Draft for Piloting and Consultation.** For implementation of the SWASH Strategic Plan, the School WASH Guideline was developed in 2010, which is a joint effort of four key Ministries responsible for School WASH including Prime Minister's Office – Regional Administration and Local Government, Ministry of Education and Vocational Training, Ministry of Health and Social Welfare, and the Ministry of Water and Irrigation in close collaboration with other stakeholders including development partners, NGOs, Civil Society Organizations, local government authorities and institutions and the communities. It sets out the minimum requirements for WASH that are relevant to various types of schools in different contexts in Tanzania. It is designed for use in different school settings where simple; affordable and replicable options can be promoted to contribute significantly to improving water; sanitation and hygiene conditions in schools and pre-schools. It is developed with the aim to:

   a) Assist local authorities (including school's management) and the local communities to assess the existing situation and to evaluate the extent to which those schools may fall short of national standards; and subsequently plan and implement any intervention or improvements required.
   b) Provide basic information (such as technical designs, cost estimation and simple operation and maintenance requirements) on a range of technical options that are suitable for various social economic conditions, for different ages, gender friendly and for children with disabilities.
   c) Set out specific standards to ensure that the improvement of existing and construction of new WASH facilities in schools meet the minimum requirements;
   d) Assist schools and communities with the development of comprehensive and realistic action plan so that acceptable conditions are maintained;
   e) Provide relevant tool-kits that can be used by different target groups (school teachers/pupils; LGAs, International/local NGOs and contractors; Development Partners; decision-makers) for development and implementation of strategic action plan for SWASH improvement.
   f) Support the implementation of the relevant National Policies through setting and achieving specific targets.
   g) Assist LGAs to involve and support communities and schools in planning; budgeting; implementing and monitoring for School WASH improvement

90.   The Guideline has five toolkits:

   a) Toolkit 1- Assessment and Monitoring Tools for SWASH (including SWASH Situation Assessment, SWASH Monitoring and Inspection for External Use, Checklist for Monthly

Monitoring by School Boards, Parents and Teachers, SWASH Planning and Implementation Checklist)

b) Toolkit 2- Technical Options for SWASH (2A: Options and Operation & Maintenance, and 2B: Designs and Bills of Quantities)

c) Toolkit 3- Sanitation and Hygiene Education for Primary Schools (3A: Handbook for Teachers, and 3B: Posters)

d) Toolkit 4- Manual on use SWASH Guidelines, Handbook for Trainers

e) Toolkit 5- Manual on use of Teachers' Handbook on Hygiene Education in Schools, Handbook for Trainers

91.   **National Sanitation Campaign.** In 2012, the Government of Tanzania launched the National Sanitation Campaign (NSC), under which, the Government has committed to facilitate 7 million Tanzanians gaining access to improved sanitation by 2015. In addition, a draft National Sanitation and Hygiene Policy[25]demonstrates the priority of the Government to this sector. A MoU among Ministry of Health and Social Welfare, MoEST, Ministry of Water, and PO-RALG summarizes institutional responsibilities and outlines a dialogue structure among the parties to improve coordination among key institutions. The NSC is delivered through Water Sector Development Program under the overall coordination of the Ministry of Water. About 65% of the funding (US$16 Million) is provided directly to LGAs for household sanitation promotion and school infrastructure improvement with the balance is targeted for national and regional level for monitoring and supervising LGAs activities.

92.   **Tanzania's Education Management Information System (EMIS).** EMIS is an Education sector's primary source of information in order to better manage, plan and formulate effective education policies. EMIS also gives an overview of the education system and its performance in a country. It facilitates decision-and policy-making by providing information on the current condition of the system. EMIS information plays an important role in determining educational needs so authorities may decide how to best allocate the limited resources in the face of competing priorities. EMIS is used for:

a) Monitoring and evaluating progress;

b) Identifying challenges; and

c) Strategizing possible solutions at the National, Regional, District and School levels

93.   The EMIS is now up and running and the 2016 comprehensive data was uploaded to the Open Data portal by target date and provides a wealth of detailed school-level information for monitoring and planning purposes, as well as making the sector's performance much more transparent. In order to strengthen the use of EMIS data, made available through open data initiative supported through the DLI# 3 in the original EPforR Program, the TA under the AF Program will support education research initiatives in leading universities in Tanzania. This is expected to create a culture of evidence-based education policy accelerating progress on key education outcomes in the country, while creating demand for high quality data and encouraging continuous investments in data infrastructure beyond the life of the program. A review of EMIS provision is ongoing to ensure it is better coordinated nationally, including finalizing unique school

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[25] The draft policy is yet to be approved by Cabinet.

identifier codes, and that the formats of publicly available EMIS data are more user-friendly for various stakeholders, particularly parents, teachers and LGAs.

94.   Adequate financing from the Government is expected to be made available to the EMIS Unit in PO-RALG to ensure that data can be collected, cleaned and uploaded faster immediately after the Annual School Census, allowing enough time for the Government to complete its analysis of the data before the draft Annual Summary of Education Performance Report based on the final data is made available by the end of August.

95.   **Basic Education Statistics in Tanzania (BEST).**   The MoEST has been publishing annually the statistics booklet named "Basic Education Statistics in Tanzania" since 1980. The recent booklet published in August 2016 contains education data at national level for the period of five years that is from 2012 to 2016. The statistics published in the 2012-2016 booklet not only makes people more informed but also facilitates better decision making and planning for the Education Sector. The publication also provides basic indicators for all Education Sub-sectors namely, Pre-primary, Primary, Secondary, Teacher Education, Adult and Non-Formal, Folk, Vocational, Technical and Higher Education. The booklet is prepared based on agreed national indicators of access (enrolment), equity, Internal efficiency, quality (Number of teachers, Examination Results), School Quality Assurance and Education Financing. It is useful for monitoring of education sector performance and tracking Sustainable Development Goals (SDG Number 4). The booklet contains SWASH facility information and data by only one indicator "the number of latrines in all schools", the following indicators **have not** been included in the booklet yet. However, the consultation informs that the following indicators have been included in the agreed Annual School Census for 2016 and the 2017 School Census might include additional variables.

   a) Number of schools with availability of water or functional water point by source, distance and ownership
   b) Number of schools with availability of electricity by source location and ownership
   c) Number of schools with availability of health services by distance location and ownership
   d) Number of Teacher's Toilets in schools by sex, location and ownership
   e) Number of schools with playing facilities/playground by types location and ownership
   f) Number of schools with WASH (Water, Sanitation and Hygiene) program by region and ownership
   g) Number of schools with literacy clubs (HIV/AIDS, environmental, anti - corruption, human right education, scouts)
   h) Number of schools providing meals by location and ownership
   i) Number of schools' students receiving meals by type of meal, location and ownership

3.3 Institutional Framework for Environmental and Social Management

96.   **The Vice President Office (VPO)'s Leaders: The Minister Responsible for Environment.** The Minister for Environment is responsible for matters relating to environment and in that respect be responsible for articulation of policy guidelines necessary for the promotion, protection and sustainable management of environment in Tanzania.

97.   **The National Environmental Advisory Committee.** It is an advisory body established with the mandate of advising the Minister responsible for Environment or any sector Ministry in all matters related to the protection and management of environment.

98.   **The Vice President Office (VPO) –Environment Division (ED).** With regards to the environmental management in Tanzania, the overall responsibility lies with the Vice President's Office (VPO) – Environment Division. The legal and institutional framework for environmental management in the country is provided in the EMA (2004). The ED was established in 1991 under the Ministry of Natural Resources and Tourism. In 1995, the ED was transferred to the VPO to give it the requisite priority and attention on promoting management of environmental agenda. The ED is responsible for the overall environmental policy and regulation, formulation, coordination and monitoring of environment policy implementation in the country. Institutions, with enforcement role in environmental management include Sector Ministries, National Environment Management Council (NEMC) and Local Government Authorities (LGAs).

99.   The vision of the VPO ED is "to attain sustainable human development, eradication of poverty, security and equitable use of resources on a sustainable basis to meet the basic needs of the present and future generations without degrading the environment or risking health or safety and also maintain the union between the mainland Tanzania and Zanzibar". The mission of the VPO ED is "to formulate policies and strategies on poverty eradication, protection of environment and non-governmental organizations as well as co-ordinate all issues pertaining to the mainland Tanzania and Zanzibar".

100.   The ED is responsible for coordination of national and international matters related to environmental conservation and management. The Division is led by a Director and comprises of three Sections as follows:

  a) *Environmental Natural Habitats Conservation.* This section is responsible for developing, reviewing and coordinating implementation of environmental policies, acts, regulations, guidelines, programs and strategies which are related to natural habitats and environmental conservation. Some of the specific areas of focus include biosafety; State of the Environment reporting; and biodiversity conservation of major lake basins such as Lake Tanganyika and Lake Nyasa. In addition, the section coordinates Global Environment Facility activities.
  b) *Environmental Management of Pollution.* The section is charged with the preparation, review and provision of advice on policies, legislation and guidelines which are related to environmental management of pollution. Some of the specific areas of focus include ozone depleting substances; persistent organic pollutants; and sustainable consumption and production.
  c) *Environmental Impact Assessment.* The main responsibilities of this section is to prepare and review environmental management policies, legislatives, regulations, guidelines, criteria and procedures for environmental impact assessments, risk assessments and Strategic Environmental assessments. Some of the specific areas of focus include climate change; poverty and environment mainstreaming; approval of Environmental Impact Statement and Strategic Environmental Assessment;

101.   The Director of Environment is responsible for coordinating various environment activities being undertaken by other agencies and promotes the integration of environment considerations into development policies, plans, programs, strategies, projects and undertake as well as process or issue several environmental permits.

102.   **The National Environment Management Council** is the national authority responsible for ensuring compliance with the National Environmental Act. To ensure compliance, project must be issued an environmental license or permit, which confirms that all necessary environmental and social due diligence requirements have been fulfilled. NEMC also provides periodic oversight, monitoring the national portfolio of activities to ensure that no adverse cumulative impacts result. NEMC further provides oversight and technical assistance at the district level when required.

103.   Overall, NEMC performs three critically important roles:
   a) Oversee the ESIA process;
   b) Train district officials to carry out environmental and social due diligence monitoring; and
   c) Monitor implementation of environmental and social risk management.

104.   NEMC is also responsible for:
   a) Ensuring that operators comply with Tanzania's environmental laws and requirements, a function it carries out with the assistance of the environmental officers assigned to district and regional governments;
   b) Receiving, reviewing, issuing comments and requests for revision, and providing clearance of completed ESIAs, when they are required, for subprojects prior to issuance of environmental permits and disbursement of financing from the fund;
   c) Reviewing and compiling monitoring reports for the district coordinators;
   d) Issuing directives, based on monitoring and evaluation reports, to the operators and district environmental coordinators; and
   e) Conducting, in cooperation with other ministries, programs to enhance environmental education and increase public awareness.

105.   **Sector Ministries.** Each Ministry consist of an environmental section Unit with responsibilities of ensuring compliance of environmental laws and report their implementation to the Director of Environment and NEMC.

106.   **Regional Secretariat.** It is responsible for coordination of all advice on environmental management in their respective regions (local authorities) and liaison with the Director of Environment and the Director General.

107.   **Local Government Authorities.** LGAs maintain Environmental Management Committees, the membership of which typically consists of:
   a) District planning officer, who coordinates the planning process;
   b) District natural resources officer, who manages the development of natural resources/forestry, wildlife, beekeeping, fisheries, and so forth;
   c) District agricultural and livestock development officer, responsible for land use and management;

d) District water engineer;
e) District health officer; and
f) Co-opted members (depending on nature of project).

108.   The Committees are supported by a designated or appointed Environmental Management Officer, employed by the District LGA but linked to and trained by NEMC, and having these main functions:
a) Issuance of ESIA registration forms to developers and operators and provision of information on relevant policy, legal, and other administrative requirements at the district level;
b) Coordination of the ESIA process at the district level as needed; and
c) Linkage with NEMC on all undertakings within the district.

109.   LGAs review and clear the environmental and social management process, required of the School Boards, prior to funding any construction or civil works program. They ensure proper accounting at the school level and are responsible for:
a) ensuring school construction programs comply with Tanzania's environmental laws and requirements;
b) receiving, reviewing and commenting and clearing of School Boards completed environmental and social screening forms and checklists;
c) carrying out a regular and intrusive monitoring regime during the planning, implementation, construction, operations and maintenance stages of the schools;
d) preparing periodic monitoring reports on the school construction programs at all stages of operations and to send these reports on a regular basis to the MoEST; and
e) complying with (consistent with national laws) the directives of NEMC and MoEST,

110.   **Sectoral and District Level Environmental Units.** Environmental Units at sectoral and district level are the collaborating partners in the EIA process. The linkages between NEMC and the sectoral and district environmental units are legally binding to ensure clear lines of command to facilitate effective implementation. The roles and responsibilities of these units shall be the following:
a)   Sectoral Environmental Units:
- With assistance from NEMC to develop sectoral guidelines within the framework of the national EIA guidelines;
- To issue EIS registration forms to proponents and provide relevant information on policies and other administrative requirements; and
- To assist the general EIA process administration at sectoral level
b)   District Environmental Units:
- To issue EIA registration forms to proponents and provide relevant information on policy, legal and other administrative requirements at the district level;
- To coordinate EIA process at district level; and
- To link and liaise with the NEMC on all undertaking with district.

111.   **School Committees or School Boards.** The School Management Committees (for primary schools) or School Boards (for secondary schools) are responsible for:

a) complying with all national laws regarding the environment and with all social/poverty guidelines, parameters and targets;

b) implementing school construction program with all appropriate mitigation measures as defined in the construction planning cycle, technical and engineering designs and drawings, and civil works contracts, etc; and

c) ensuring that these mitigation measures are complied with during construction and post construction (i.e. operations) stages of their activities, by self-monitoring of their activities and by periodically reporting to LGAs; and maintaining an adequate budget to implement the appropriate maintenance procedures

112.   **The Ministry of Water and Irrigation** is the agency responsible for co-ordination, monitoring and regulating community water supply. The promotion of hygiene and sanitation rests with the Ministry of Health and Social Welfare. Due to decentralization in the water and sanitation sector LGAs are responsible for service provision of water and sanitation in their administrative areas, with advice from the PO-RALG.

113.   **Energy and Water Utilities Regulatory Authority, 2001**. The general functions of EWURA are to regulate the provision of water supply and sanitation services by a water authority or other person including the establishment of standards relating to equipment and tariffs chargeable for the provisions of water supply and sanitation services.

114.   **The Occupational Safety and Health Authority (OSHA)** was set up in 2001 under the Ministry of Labor and Employment to administer occupational health and safety at workplaces in the country. The role of OSHA is to improve health and safety (wellbeing) of workers and workplaces by promoting occupational health and safe practices in order to eliminate occupational accidents and diseases, hence achieve better productivity in the workplaces The Ministry of Labor and Employment is the main actor with the oversight role of ensuring that decent work is practiced and maintained in Tanzania. It provides directives, technical advice, enforces legislations, proposes amendments, allocates resources, oversees all activities carried out by OSHA and ensures that occupational safety and health rules and regulations are adhered to and maintained at workplaces.

115.   **Ministry of Education, Science and Technology (MoEST).** The MoEST is responsible for hygiene education and the provision of clean water and sanitation facilities in schools. However, there is a gap between MoEST at the national level and the School Boards (formed by parents, local government officials [village and ward] and school management) and who bear the major responsibility in facilitating community engagement in addressing school level environmental and social risks. This gap gives rise to inadequate enforcement of existing standards on quality school facilities, despite the school inspection process. This existing shortcoming in coordination and criteria for monitoring limit the effectiveness of School Boards to supervise standards as well as community engagement in supporting the provision of basic school facilities. A new Government Directive (Letter with Ref No. DC297/507/01/145 dated 27th November, 2015 of the PS, PO-RALG) seeks to clarify the responsibilities of government on primary education and the roles and responsibilities of different stakeholders in this sector, specifically delineating the

contribution of communities which is basically to be in kind. Compliance however will vary due to differences in understanding and capacities in resource mobilization which will have impact on the PforR Program.

SECTION IV: POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM

4.1 Environmental and Social Screening

116.   As described in Section II, the Program will support the lower and upper secondary education components of the ESDP for a five-year period to June 2023. It will only support aspects of the government's program that are not already covered by the ongoing Education Program for Results program (EPforR). 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 and cash transfer programs.

117.   The Program will support school rehabilitation, expansion and new construction under Results Area 1: improved learning environments to support teaching and learning for all children. A DLI has been set up: number of LGAs completing agreed rehabilitation, expansion and new construction targets. The Education Sector Development Program (ESDP) projects that between 2018 and 2022 the overall stock of secondary school classrooms will need to double from around 35,000 to address existing shortages as well as accommodate the increased enrolment arising from the Free Basic Education Policy (FBEP). Rehabilitation of existing infrastructure and water and sanitation facilities will also be required. Providing adequate facilities for the large enrolment increases that will occur over the next five years will be critical to the success of the FBEP and increasing the proportion of Tanzanians with good secondary school learning outcomes. Moreover, improving the school network to address long distances between households and schools can greatly enhance the equity of secondary school participation and completion.

118.   A new construction strategy is being developed through the ongoing EPforR. Given the relatively long average distances between households and schools the strategy will cover issues around school size and placement. It will also explore cost-effective strategies to increase and improve the quality of school buildings. Based on the new construction strategy a needs assessment will be undertaken in each LGA that will assess existing infrastructure and based on projected enrolment estimate additional infrastructure needs. These assessments will provide the basis of a costed secondary school infrastructure plan for each LGA. Through improved and expanded secondary school infrastructure it is expected that more students can enroll in and complete secondary school. Disbursement will be made initially on the production of costed infrastructure plans for each LGA. Further disbursement will be made against the number of LGAs achieving pre-agreed infrastructure targets.

119.   An environmental and social screening of the Program scope was undertaken. The purpose of the screening was to: (i) identify activities likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people; those activities are not eligible for the Financing, and should not be included under the Program; and (ii) to identify potential risks (as well as opportunities) that may be associated with the Program and determine the priority areas that warrant further analysis through the environmental and social system assessment. The results of the screening are as follows:

a) Positive environmental and social benefits will be expected as major results of the Program, if environmental and social actions and measures are included into the implementation of the Program to enhance compliance and integration of environmental and social risks management.
b) The main environmental and social impacts of the Program are related to school construction.
c) Environmental and social risks to achievement of the PDO of the Program are specially relate to environmental, health, safety and social concerns including: (i) inadequate water supply and sanitation facilities; (ii) unsafe building materials and building structure damage, (iii) inadequate facilities and access for physically challenged, (v) gender disparity, (vi) lack of active parents and community participation and (vii) lack of structured grievance redress mechanisms on environmental and social impacts and risks at LGAs and/or schools.
d) Environmental and social impacts and risks management systems should be enhanced during the Program implementation, as part of the Disbursement Linked Results/Indicators and/or the Program Action Plan.

4.2 Potential Environmental Benefits, Impacts and Risks

4.2.1 Potential Environmental Benefits

120.   The ESSA is intended to facilitate the GoT and implementing agencies in overcoming the deficiencies with regard to environment, health and safety aspects in schools and institute systemic improvements including implementation. The Program provides an important opportunity to enhance environmental and social systems with regard to ensuring safe, clean and sustainable surroundings in schools, which is recognized as a basic prerequisite for ensuring a conducive learning and teaching environment and quality. In this context, the broad environmental goals/benefits of such a Program would be to:

a) Improve relevant standards and guidelines for school facilities (new construction and existing) and sanitation/hygiene requirements
b) Improve awareness/behavior and capacity of school constructors, school managers, teachers, school communities, school boards, education and environmental officers in LGAs on construction and school management in order to create a clean, safe, hazard-free school environment with easy accessibility
c) Remove policy and managerial/institutional barriers to expansion of basic school facilities: water supply, sanitation, hygiene and electricity
d) Avoid exposure to toxic building materials
e) Conserve energy and natural resources, employ day-lighting strategies and promote sustainable use of locally sourced materials and water harvesting
f) Employ sustainable purchasing and green practices such as waste management efforts and recycling

4.2.2 Potential Environmental Impacts and Risks

121.   The potential environmental impacts and risks in the Program are specifically related to **environmental, health and safety concerns of students and teachers** in the following aspects:

   a) Potential **adverse environmental impacts** that could arise from school construction include possible use of hazardous building materials (such as asbestos, lead-containing paint, etc.), minor loss of vegetation during site clearing; pollution of land and nearby water resources arising from construction/rehabilitation wastes (especially when old buildings contain asbestos), soil erosion may also result from inadequacies in backfilling construction works and improper drainage of storm water, and dust and noise. However, these are expected to be site specific and can be managed through a well-defined mitigation and monitoring measures.
   b) **Inadequate water supply and sanitation facilities as well as electricity**. Poor quality and unavailability of water supply and inadequate sanitation are known to have adverse impacts on health and also on school attendance and thereby educational performance and quality. Poor maintenance of water and sanitation systems and insufficient awareness of hygiene can also have health impacts.
   c) **Inadequate safe drinking water**, particularly in areas where ground water has fluoride or heavy metals
   d) **Unsafe building materials** such as asbestos and low cost chemical (lead) paints might have been used in the school buildings, and **unmaintained building structure**.
   e) Inadequate facilities and **access for physically challenged** in all schools
   f) **Weak compliance and enforcement** of environmental and social requirements, which are often the key reasons for inadequate school WASH facilities.
   g) **Limited awareness and capacity** of sanitation, hygiene, and environmental and social protection and management
   h) **Lack of integration and networking/collaboration,** within governments, between governments and with economic and community institutions outside governments, in particular, with business and with environmental non-governmental organizations
   i) Locations of some schools are in or near sources of **high potential pollution** such as waste disposal sites/landfills, slaughter houses, cattle-sheds, or any other probable source of infectious diseases.
   j) **Lack of disaster/safety** and emergency response arrangements, especially if the schools are located in difficult sites such as hilly areas; erosion prone sites or high vulnerability areas.

122.   School water, sanitation and hygiene can make an enormous difference in the lives of school children, particularly girls. A clean, safe, secure and enabling environment in which pupils can learn and perform to their full potential is a vital part in any child's life and a basis for development. The Government has been making efforts since 1997 through the launch of the Education Sector Development Plan (ESDP) in the education sector on increasing the enrolment of pupils (through the abolition of school fees in 2002 and the recent Free Basic Education Policy in 2016), improving teaching and learning processes, provision of teaching and learning facilities and strengthening teachers and coordinators capacity. Efforts to increase school enrolment have been successful but this has at the same time placed heavy burden on the existing school

infrastructure, particularly the water, sanitation and hygiene facilities which generally were already suffering from poor operation and maintenance. Many new schools and classrooms were built with no consideration for WASH facilities or if built, these rarely followed any standards. Children in such schools also face increased health risks including diarrhea, worms and urinary infections - which can impact their ability to learn and could result to increased absenteeism. Poor attendance often translates into poor performance, and students who perform poorly are more likely to drop out early from school.

123.	According to the BEST 2012-2016 National Data, the national average male Pit Latrine Ratio (PLR) is 1:53 against the Standard of 1:25 and that of females is 1:52 against the standard of 1:20 for primary schools; and the make PLR is 1:25 and that of females is 1:24 for secondary schools in 2016. The adequacy of latrines is still a major challenge in primary schools. The BEST also provides the data on electricity availability for primary and secondary schools: the schools with electricity is about 85% and 90% respectively for primary and secondary schools, however, only 22% of primary schools and 44% of secondary schools have been connected to the national grid.

4.3 Potential Social Benefits, Impacts and Risks

4.3.1 Potential Social Benefits

124.	The Government of Tanzania is making efforts to be inclusive of all groups of people without discrimination in its school system. The SEQUIP Program has the potential to enhance equitable access of all social/economic groups, vulnerable and other less advantaged groups, and underserved regions as well as improvements in gender equity in lower and upper secondary school enrolments and improvements in the proportion of schools with adequate learning environments. The program will also target for better institutional functioning for results by enhancing capacity of implementers from national level to school boards as well as enhancing social accountability and grievance redress measures.

4.3.2 Potential Social Impacts and Risks

125.	The potential program interventions are not expected to have adverse physical footprints in terms of loss of land or assets/livelihood etc., since land acquisition is not envisaged and all intended constructions will be within the boundaries of existing school properties. The social risks envisaged include the following:

   a)	Equity between regions (rural and urban), gender and vulnerable groups/low income households; elite capture of most incentive programs; and politicization of decision making such as in distribution of teachers and influence on selection of participating LGAs and schools.
   b)	Weak participatory decision making due to lack of involvement of all relevant actors at the local councils, schools' administration and school boards
   c)	Grievance Redress Mechanism particularly at the school, ward and municipal levels where pupils, students and their parents could express their grievances without fear of retaliation.

d) Class absenteeism and School drop-outs due to poverty where students miss school to engage in income earning activities; or drop out of school due to early pregnancy and providing care in the home in case of girls or due to other social vices such as substance abuse and betting in case of boys.

e) Security and better basic school facilities (better training environment for healthy children, learning, retention which leads to truancy and poor performance.

f) The epidemic of HIV/AIDS particularly in the low-income areas which leads to orphan children being taken care of by their grandparents.

g) Challenges of capacity to supervise social standards at all levels of the education system from national to the local government and school levels.

h) Safety of both the students and community during construction of school/classroom facilities.

i) Social inclusion in the design of the facilities, for example access for the physically disabled, etc.

j) Sexual exploitation, harassment or abuse involving teenagers leading to early pregnancies and school drop-outs.

k) Potential labor influx issues during school constructions.

l) Land related issues for example, school land encroachments.

SECTION V: OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY ASSESSMENT

126.   Based on the screening of environmental and social effects (benefits, impacts and risks) of the Program and review of the existing national environmental and social management systems, the assessment (see details in Table 5.1) of environmental and social management systems relevant to the activities supported under the Program for each PforR Bank Policy and respective Bank PforR Directive is presented in the table below, using the Strengths-Weaknesses-Actions approach as adapted and applied to the Program context in the following way:

  a) Strengths of the system, or where it functions effectively and efficiently and is consistent with the Bank Policy;
  b) Inconsistencies and gaps ("weaknesses") between the country's environmental and social systems and the Bank Policy and Directive, and capacity constraints
  c) Actions to strengthen the existing system, especially being integrated into the relevant DLRs/DLIs and PAP for the Program.

127.   The ESSA concludes 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 in the proposed Program. Technical guidelines and national plans/programs exist for environmental and social due diligence with respect to the potential impacts of the Program and risks to the Program's achieving its results. There are also ESMFs under the past complementary World Bank funded education projects (with school constructions) through the Investment Financing Project (IFP) instrument, which had been deemed satisfactory in their implementation. However, the capacity to effectively enforce certain environmental and social regulations and guidelines in school constructions and education could be improved through the Program implementation. Thus, several recommendations (actions) at the Program level are made to address these shortcomings and are included in the PAP and DLRs/DLIs for effective implementation and progress monitoring.

Table 5.1: Environmental and Social Management System Assessment

Bank PforR Policy 1: promote environmental and social sustainability in Program design; avoid, minimize or mitigate against adverse impacts; and promote informed decision-making relating to a Program's environmental and social effects.

Bank PforR Directive: Program Systems will:
- Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the Program level.
- Incorporate recognized elements of environmental and social assessment good practice, including (i) early screening of potential effects; (ii) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (iii) explicit assessment of potential induced, cumulative, and trans-boundary impacts; (iv) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (v) clear articulation of institutional responsibilities and resources to support implementation of plans; and (vi) responsiveness and accountability through stakeholder consultation, timely dissemination of Program information, and responsive grievance redress measures.

Assessment Summary – Overall, the national regulatory framework for environmental and social management in Tanzania, especially at the Program level, is consistent with the Bank PforR Policy and Directive in terms of principles and key elements. These are supported by political commitment at the highest level for a strong union and a safe, healthy and sustainable environment.

The national EIA system has well-defined guidelines covering project registration and screening, EIA process (scoping, alternative analysis, impact assessment, mitigation measures, management plan and consultation), monitoring and auditing, and decommissioning.

The assessed weaknesses are systemic related to lack of enforcement and compliance with existing laws, regulations and guidelines governing environmental and social management. In addition, inadequate attention to environmental, health and safety concerns, lack of environmental and social management data collection in systematic collection and reporting in BEST and EMIS, and weak coordination among agencies.

System Strengths	Gaps
In VPO-ED, NEMC, MoEST and PO-RALG there is **recognition of environmental sustainability** and the desire for the ongoing EPforR and this new Program interventions to contribute to improved water access and hygiene/sanitation, waste management and a better school environments, as well as strengthened institutions. They are familiar with environmental and social issues and mitigatory measures required for Education project and programs. These initiatives are still being mainstreamed in a systematic manner in the education sector and can be further strengthened under the Program.	ESSA field interviews and the ongoing EPforR Program supervisions indicate that although the direct environmental and social impacts of the Program are generally moderate, environmental management activities are weak in some areas, such as inadequate knowledge on hygiene/sanitation at community and school level, lack of commitment on maintenance of school infrastructure, weak systematic compliance, inspection/enforcement, and monitoring/reporting of implementation of environmental and social regulations, guidelines and national programs (weak and insufficient institutional and technical capacity), limited coordination among the various related agencies.
The system for clearances and approvals of ESIAs is well established under the MEA and its regulations. After clearance of designs, construction is required to be done by only certified contractors and all civil works, laboratory and fire equipment need to conform to the standard guidelines. The Regional Engineers and School Boards certify satisfactory completion of civil works and random visits to schools are done to verify compliance of quality, in accordance with instructions for quality provided in the technical handbook. The Inspectorate unit at MoEST approves quality of construction and operations capacity of the schools.	There are also **limited awareness of environmental health risks** associated with poor quality of water and hazardous materials in old buildings (such as asbestos and lead-containing paints, etc.), which prevents adequate attention be paid to these issues.

Lack of clearly defined roles and responsibilities and coordination for monitoring/reporting of quality and quantity of drinking water and sanitation facilities at the school level. |
| **There are technical construction guidelines for school design** and construction that are presently being used by the MoEST. These include guidelines for siting and locations of | **Technical guidelines need updating** to integrate environmental and social requirements in all stages of school construction: design, construction, operation and maintenance, and also include emerging issues such as (i) greener solutions in new buildings, (ii) designs taking into account students with disabilities, (iii) climate adaptation and resilience measures. |

schools, including land use zoning conditions; designs for school buildings, ventilation, water supply and sanitation, waste management for laboratories, kitchen designs, numbers of toilets per student (male and female), use of safe local materials and worker safety and rubble management requirements during construction works. There are also **national strategic plans and programs or champions to promote SWASH** facilities and awareness.	**Public disclosure** of documents for those programs requiring a full EIA is a requirement. But the actual process of public review and comments can be onerous and public hearings are at NEMC's discretion during the EIA review and approval process. Under the EMA, there is a procedure related to **grievances** with respect to decisions about granting the EIA certificate. However, in the EIA and Audit regulations, there is no clear provisions on grievance redress mechanisms and there is no requirement that ESMPs should include a mechanism for handling grievances.

Actions

The **national guidelines on school constructions currently under** review would need to include all necessary environmental and social management requirements in all stages of school infrastructures: design, construction, operation and maintenance. During the review and revision, the existing EMA and its regulations/guidelines in the country, the Bank's Environmental, Health and Safety Guidelines, the WBG Good Practice Note on Asbestos: Occupational and Community Health Issues dated May 2009 (see Annex IV), and Environment Code of Practices (ECOP) (see Annex V) for construction should be used as reference. Additionally, systemic changes to promote sustainable and "greener" building designs to allow better resource management and larger involvement of beneficiary communities for supervising works, payment to contractors, contribution to school facilities improvement, maintenance of facilities to ensure quality should also be considered for inclusion.

Capitation grants should be guaranteed for upgrading and maintenance of clean, health and safe school environment to meet the minimum requirements according to the national guidelines (e.g. national guidelines for SWASH): classrooms, sanitation/toilets, water supply systems, waste management and recycling practices, and electricity.

The **EMIS** should include appropriate environmental and social performance indicators in order to generate environmental and social related data for identification of gaps and actions needed to take.

The **training programs** for capacity building for stakeholders in the education sector should include environmental and social management training.

Cooperation and inter-sectoral coordination should be strengthened.

Bank PforR Policy 2: avoid, minimize and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.

Bank PforR Directive: As relevant, the program to be supported:
- Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas.
- Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities.

▪ Takes into account potential adverse effects on physical cultural property and, as warranted, provides adequate measures to avoid, minimize, or mitigate such effects.

Assessment Summary –The EIA and Audit regulations provide detailed guidance and criteria on screening of sensitive wildlife/habitats and cultural resources during the review of a project brief with information on the nature of a project, scope, site, infrastructure and utilities, potential environment and social impacts, relevant environmental studies etc.; and detailed steps and requirements on conducting EIA if required (including baseline studies on the social, economic, physical, ecological, social-cultural and institutional environment within the project boundary area) for projects which will or might have significant environmental and social impacts. Impact mitigation (for negative impacts) and enhancement (for positive impacts) measures are requested to be prepared with details about institutional responsibilities and costs. The environmental audits are also required to identify any significant source of air pollution, water pollution, land contamination and degradation, local community disturbance, wildlife disturbance and health of the workers of the projects. These national requirements related to natural habitat and physical culture resources are consistent with the Bank Policy and Directive.

The NEMC undertakes the screening of a proposed project in accordance with the screening criteria stipulated in the EIA and Audit Regulations. Key sensitive areas include (a)national parks, (b) wetlands, (c) productive agricultural land, (d) important archaeological, historical and cultural sites; (e) areas protected under legislation; (f) areas containing rare or endangered flora or fauna; (g) areas containing unique or outstanding scenery; (h) mountains or developments on or near steep hill-slopes; (i) dry tropical forests (e.g. Brachystegia woodlands); (j) development near Lakes or its beaches; (k) development providing important resources for vulnerable groups such as fishing communities along the lake-shore; (l) development near high population concentrations or industrial activities where further development could create significant environmental problems; and (m) prime ground-water re-charge areas or areas of importance for surface run off of water are either not allowed for a project or are identified for detailed baseline study and impact assessment.

System Strengths	Gaps
The Tanzanian EIA process considers natural habitats and physical cultural resources, including screening for natural wildlife and habitats, archaeological, historical and cultural sites.	There are no significant inconsistencies between the Bank PforR Policy and Directive and Tanzania's policies, laws, and regulations related to natural habitats and physical cultural resources.
The Wildlife Conservation Act 2009 makes better provisions for the conservation, management, protection and sustainable utilization of wildlife and wildlife products.	However, the Antiquities Act does not cover the protection and conservation of cultural heritage in relation to people, environment and nature (Musiba&Mabulla 2003; Kamamba 2005). The community awareness, involvement and/or motivation as a strategy safeguard heritage resources has not been part of this Act (Kamamba 2005)[26].
The Antiquities Act was enacted by the independent government in 1964 and amended in 1979 and 1985. The Act protects many types of cultural heritage as described in Section IV.	Among other things, the Act specifies the need for Cultural Heritage Impact Assessment (CHIA). However, the process of conducting a CHIA is not

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[26]TOWARDS SUSTAINABLE CULTURAL HERITAGE MANAGEMENT IN TANZANIA: A CASESTUDY OF KALENGA AND MLAMBALASI SITES IN IRINGA, SOUTHERN TANZANIA, Author(s): PASTORY MAGAYANE BUSHOZI, The South African Archaeological Bulletin, Vol. 69, No. 200 (DECEMBER 2014), pp.136-141

	explicit, and CHIA is often left out or minimized in EIAs[27].

Actions
Location selection for new schools should avoid adverse effects on natural habitats and physical cultural resources. The actions identified for strengthening the system for the Policy 1 are also applicable to the Policy 2.

Bank PforR Policy 3: protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Band PforR Directive:
- Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed.
- Promotes use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; and promotes use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions.
- Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.

Assessment summary – The EMA and its regulations contains comprehensive provisions for public and worker health and safety and hazardous waste management which are consistent with the Bank PforR policy.

Strengths	**Gaps**
By law in Tanzania it is the duty of urban local governments to provide for the health and safety of the public.[28] The EIA regulation contains robust procedures and requirement for worker health and safety, requiring plans for accident prevention as well for health and safety of workers and communities, which are also part of contracts for civil works. Tanzania has a Contractor Registration Board (CRB) that monitors and enforces occupational health and safety regulations. The Rules of Conduct requires that contractors must maintain accident registers, provide workers with protective gear, and standards for construction sites.	Occupational health and safety and hazardous waste management are adequately covered in the EMA, the EIA and audit regulations, the hazardous waste management regulations and the CRB, and no major inconsistencies between the system and the Bank Policy. However, implementation of these regulations could be weak and the worker safety provisions are not always included in civil works contracts.

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[27]Cultural Heritage Management in Tanzania's Protected Areas: Challenges and Future Prospects, by Audax Z. P. Mabulla and John F. R. Bower

[28] See The Local Government (Urban Authorities) Act, 1982.

The Hazardous Waste Control and Management Regulations (2009) and the Guidelines for Management of Hazardous Waste (2013) provide detailed requirements on hazardous waste management.	

Actions

In case existing school buildings to be rehabilitated have asbestos-containing materials, asbestos hazards should be identified and a risk management plan should be adopted that includes disposal techniques. WBG Good Practice Note on Asbestos: Occupational and Community Health Issues dated May 2009 should be used (see Annex IV). The Note outlines the health risks related to exposure to asbestos, lists resources on international good practices to minimize these risks, and describes some of the available alternatives to asbestos-containing products. This Note complements the guidance in the World Bank Group's EHS Guidelines by providing background and context. More general practices regarding asbestos that are normally considered acceptable by the World Bank Group in projects supported through its lending or other instruments are addressed in the EHS Guidelines.

The actions identified for strengthening the system for the Policy 1 are applicable to the Policy 3.

Band PforR Policy 4: Manage land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.

Band PforR Directive: As relevant, the program to be supported:
- Avoids or minimizes land acquisition and related adverse impacts;
- Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy;
- Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access;
- Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment); and
- Restores or replaces public infrastructure and community services that may be adversely affected.

Assessment summary: Overall**,** the land policy governing issues of land tenure; promotion of equitable distribution of land, access to land by all citizens, improvement of land delivery systems, fair and prompt compensation when land rights are taken over or interfered with by the government and promotion of sound land information management are comprehensive and consistent with the Bank PfoR Policy in terms of principles and key elements. However, the assessed weaknesses are systemic and related to general lack of enforcement of existing laws. It is anticipated that construction activities will be within the existing school land, however if extra land will be needed then this core principle might apply to the Program. Therefore, the team has gone ahead to analyze the gaps between the country land management and resettlement policies in other to provide gap-filling measures that will guide the client's strategy for school construction which is a deliverable for this Program.

System Strengths	Gaps:
Clear land laws, policies and regulations: The land acquisition and compensation including their dispute resolution and grievance mechanisms are governed under the following land laws and regulations. - Land Acquisition Act, Cap. 118 (R.E 2002); - Land (Assessment of the Value of Land for Compensation) Regulations (2001); - Land (Compensation Claims) regulations (2001); - Courts (Land Disputes Settlements) Act, Cap. 216 (2002). *Clear staff roles and responsibilities:* There is relatively clear designation of roles and responsibilities between agencies responsible for land management from the community level to the national level. *Grievance procedures and dispute resolution* There is a system where complaints are channeled	*Tenure:* Tanzanian law has clear procedures for landholders and generally extends eligibility for compensation to recognized or customary land users or occupiers lacking full title. But it does not recognize tenants, squatters or encroachers as being entitled to assistance or any allowances for transportation or disturbances to this particular group, etc. In Tanzania, land compensation is paid to non-titled persons if they have been in possession of the land for more than 12 years. This is covered under the law of limitation. However, compensation would not be provided to non-titled persons occupying land already demarcated for a particular purpose. There is no clear policy on resettlement and relocation of large groups of people. *Market value:* Tanzania law provides for the calculation of compensation on the basis of the market value of the lost land and unexhausted improvements, plus a disturbance, movement, and accommodation allowance for 36 months, and loss of profits where applicable. However, a depreciated replacement cost approach is used, which does not result in full replacement costs of the lost assets

upward, starting with the Mtaa,[29] Ward Executive Officer, District Commissioner, then to the Region, and up to MLHHSD. If still unsatisfied PAPs can seek recourse for grievances in the courts (specifically the Court of Land Arbitration).

Consultations: For community or local authority land consultations is an internal process and followed at the community or local authority level to ensure there is consensus on the donated land and if there are impacts on any group, community mitigation is undertaken. For land acquisition, the valuation process includes a sensitization meeting with PAPs, which must be attended by local leaders as well. The intent is to explain the program, the valuation process, valuation rates, and arrangements for physical inspection of properties.

Analysis and Guidance There is good guidance on resettlement and compensation in Tanzania that goes beyond the Land Act and Regulations – there has been a comprehensive gap analysis between World Bank OP 4.12 and the Tanzanian system, and all of the elements of Core Principle 4 are visible in previous education projects RPFs. Furthermore, for any unanticipated emerging risk the program will apply BEST.

which is inconsistent with the Bank Policy for PforR. Additionally, market values and valuation procedures tend to be outdated and there is little baseline data for land values, which risks the valuation being at the discretion of the Land Valuation Officer.

Lost Assets and Livelihood Restoration: "Replacement assets" under the Land Act in Tanzania are restricted to land and developments on land, and where relevant, loss of profits. The Bank Policy for PforR goes beyond physical assets and includes livelihoods and standard of living, seeking to improve them or at least to restore them to pre-displacement levels. While profit losses are included in Tanzanian law, this is more narrowly defined as formal business profits and compensation for crops. While the Land Act does entitle compensation for business losses, there are no legal provisions requiring the government to restore livelihoods or to provide assistance towards the restoration of such livelihoods. Land users such as tenant farmers are only entitled to compensation for crops (the valuation method is outlined in the 2001 Regulations).

Payment of Compensation: Legally, compensation for the acquired land is to be paid "promptly," but does not have to be paid before possession of land is taken.

Community Infrastructure: It does not appear that public infrastructure is specifically addressed in the Land Act and Regulations because in the past land would be freely provided for public goods. For projects/programs prioritized and implemented by the community, risks that community infrastructure will be impacted is low where most of the work will be on existing land and if required, the communities decide what land to offer to the program as donation. New developments are that LGAs now may either donate or purchase land for public infrastructure.

Consultation and Disclosure: As resettlement in practice is done as part of the ESIA and or RAP, consultation and disclosure generally follow this process with the addition of a sensitization meeting with PAPs as part of the valuation process. PAPs are also publicly informed toward the end of the process

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[29] A small urban area or geographical division of a ward.

	when they can collect their compensation payments. Community Development Officers have a role during this process as well, as do Ward Officers. However, this process is geared only toward the land valuation process, and may not include tenants, informal land users, and other types of resettlement and compensation that are not covered by Tanzanian law. For this program consultation and disclosure will take place according to the PfoR Policy even though land acquisition is not expected by this program.

Actions

Technical Guidance and Implementation Capacity: The national strategy on school constructions should be reviewed and revised as needed to include mitigation measures for where land take is required such as recognition of tenants, squatters, encroachers in terms of relocation or resettlement and all the other gaps analyzed above to be consistent with the Bank's Policy number 4 on PfoR.

The analysis conducted during the EPforR annual review showed that there was little or no knowledge of the ESSA in that program. Therefore, it will be particularly important that in this SEQIP, the details of the ESSA are clearly known and understood and implemented from MoEST, MoE, PO-RALG and LGAs up to the School level including school boards, students and parents as well as the contractors who will be engaged for the constructions activities.

Addressing Resource Constraints: The government need to designate Environmental and Social focal point officers for the Program in MoEST and PO-RALG who will oversee the implementation of ESSA at various levels. They also need to be trained to provide inputs on identifying, consulting with, and assisting disadvantaged communities and vulnerable groups, which may be excluded by the benefits of this program. The program's capacity building plan can include measures for good practices on inclusion of Vulnerable and Marginalized Communities in culturally appropriate consultations in their local language of understanding.

Grievance Redress Mechanism: A Grievance Redress Mechanism (GRM) should be established and socialized at the school and LGA levels to improve systems for stakeholders' engagement, timely resolution of complaints and broad community support. The GRM process should be enhanced and equipped particularly at the municipality and school levels to incorporate inclusive education issues included in MoEST's Inclusive Education Strategy.

Bank PforR Policy 5: Give due consideration to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of vulnerable and marginalized communities and to the needs or concerns of vulnerable groups.

Bank PforR Directive:
- Undertakes free, prior, and informed consultations if vulnerable and marginalized communities are potentially affected (positively or negatively) to determine whether there is broad community support for the program.
- Ensures that vulnerable and marginalized communities can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the vulnerable and marginalized communities.

- Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or vulnerable and marginalized communities. If necessary, special measures are taken to promote equitable access to program benefits.

Assessment summary:

While the analysis confirmed that, at present, there is currently no specific legislation or policy in place in Tanzania related to disadvantaged communities; the investments under this program targets all enrolled students as direct beneficiaries. Thus, while considering the applicability of this Core Principle, the analysis found that it was relevant in terms of ensuring that disadvantaged communities and vulnerable groups are included in the planning process and program prioritization; that disadvantaged and vulnerable groups have access to program benefits; and that their needs are considered with respect to the program's impacts. For the ESSA, the analysis of disadvantaged and vulnerable groups focused on those defined in the Tanzania Participatory Poverty Assessment: children, persons with disabilities, youths (unemployed, females, youths with unreliable incomes), people living with long illnesses (e.g. HIV/AIDS), women (widows and those not able to support themselves), drug addicts and alcoholics, and disadvantaged communities. The government's approach is to ensure that all groups of people are consulted and benefit from its programs. However, if a female student drops out of school due to early pregnancy, the government policy is that the student be expelled and no investigations are conducted by government or school authorities about the male partner. But the parents of the girl are obliged to follow up the case up to a legal action. The problem with this is that in all of the cases assessed, the parents never took action due to cultural and financial hindrances.

System Strengths

The education and skills sector is inclusive of all groups and consultations revealed that no group is excluded. Vulnerable groups have been identified, and there are special schools with access and other facilities for those suffering from disabilities. Schools also have hostels for those with severe disabilities. For marginalized groups, such as children coming from poor families and those from disadvantaged communities the program will make an effort to be as inclusive as possible as stipulated in the Constitution of the Republic of Tanzania. Tanzania also has policies specific to vulnerable groups, such as the National Gender Policy and National Policy on HIV/AIDs, in order to prevent discrimination and promote equity. MoEST is also currently drafting a National Special Needs Inclusive Education Strategy that will be ready in December 2017. There is also strong guidance for community participatory planning by PO-RALG through the "Opportunities and Obstacles to Development Handbook," which promotes inclusion of vulnerable groups throughout the planning process.

Gaps

The analysis identified a number of critical gaps in the system, including:

Identification of Vulnerable Groups: Vulnerable and marginalized groups are not explicitly included in the screening process for ESIA through EMA nor in the Tanzanian system for land acquisition and resettlement.

Vulnerable and Disadvantaged Communities: As mentioned above, there is no system in place that confers any right, status, or special position upon any citizen of Tanzania on the basis of lineage, tradition or descent, including vulnerable and marginalized communities. There is also no track record of any government only program to undertake free, prior, informed consultations with vulnerable and disadvantaged traditional communities. However, the program does involve extensive consultations with project beneficiaries vulnerable groups and underserved communities.

Monitoring: Monitoring of gender, poverty, and HIV/AIDS in the development planning process is in need of strengthening. In the education sector, there is no common method of analysis and collection of baseline to aid development planning on these issues in the sector.

	Policy on Handling School Drop-Outs for Girls: Some 3000 girls annually drop out of school due to early pregnancy. This was highlighted by technical officials at the municipal and school levels as an issue. Currently, the government policy on the matter is expulsion for a school girl that is found pregnant. This further disadvantages the girl from getting ahead in life. There's need to strengthen the system for self-awareness training and campaign, community enlightenment, empowerment and right to be heard through the GRM system as preventive measures and through the Inclusive Education Strategy that is currently being revised.

Actions

Basic Education Statistics in Tanzania (BEST). Whereas education and skills sector is inclusive of all groups and consultations revealed that no group is excluded, the basic education statistics in Tanzania can be strengthened to ensure easy and available data on number of vulnerable and disadvantaged communities that assess the school system.

Government Policy on Early Pregnant School Girls: Develop an approved and costed plan aligned with the Inclusive Education Strategy with actions to reduce girls' drop-out and improve education outcomes (see DLR 1.1)

MOEST will provide guidance and tools to School Boards

Technical Assistant component will have a model on teacher behavior and gender sensitivities

Every school will have Counselors who will be responsible for counselling students both boys and girls, and who will be working with School Boards on the early pregnancy issues.

The remaining actions identified for strengthening the system for Policy Four as they relate to land acquisition are applicable to Policy Five if the land implied is under use /owned by the Vulnerable and Marginalized /Disadvantaged people and communities.

Bank PforR Policy 6: Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.
Band PforR Directive: Considers conflict risks, including distributional equity and cultural sensitivities.

The SEQUIP will not entail social conflict in fragile states, post-conflict areas or areas subject to territorial disputes, as such are not evident in Tanzania, nor will the Program cause social conflict or impact distributional equity or associated cultural sensitivities. As such, the ESSA did not consider the Program with regards to the Bank PforR Policy 6 as this core principle and key element are not applicable to both the operation and country. It is important to note that distributional equity and cultural sensitivities are covered under the analysis of system with respect to the main considerations of Policy 5.

128.   The following table summarizes the Program's integrated risk assessment and proposed measures to mitigate those risks (i.e. challenges) based on the findings of the ESSA.

Table 5.2 Integrated Risk Assessment

Risk Description	Risk Management
Potential environmental and social impacts of the Program are not identified, mitigated, and monitored, or program scope is changed to include large-scale civil works.	The Program does not finance large scale physical infrastructure, construction of new schools/classrooms, upgradations of other facilities does not entail any land acquisition but are expected to be conducted on existing school lands. However, the potential environmental and social impacts of the program is rated **moderate**. This follows the assessed need to address gaps in environmental and social practices with regards to the school construction strategy DLR. Actions linked to the Program's DLIs/DLRs to mitigate the risks that the Program might not achieve its results are detailed in Section VI of the ESSA. Monitoring and supervision of these actions related to environmental and social issues will be a part of World Bank supervision.
Grievance Redressal Mechanisms: There is no formalized and effective complaint mechanism to address social and environmental issues without retaliation	The Program will use the strengthened system of complaint receiving and feedback mechanism (as laid out in Section V of this ESSA and will train program staff (where required) to implement and monitor it. The GRM process should be enhanced and equipped particularly at the municipality and school levels to incorporate inclusive education issues included in MoEST's Inclusive Education Strategy.
Staffing and skills mix is insufficient to handle environmental and social management issues	The Program will assess capacity needs of staff for environmental and social management and ensure that all necessary staffing is available with adequate skills; and appoint focal points for Environmental and Social for monitoring and implementation of the ESSA. The Program will be incentivized to provide adequate resources to environmental and social management. Training on costing, implementation and monitoring of environmental and social actions and the Grievance Redressal Mechanisms will be included in capacity building program.
No sufficient technical expertise to assess performance of the ESSA proposed environmental and social risk management actions	The Program client team will include an environmental and social focal point in MoEST as part of the program coordination team and in PO-RALG with counterparts in all participating LGAs. MoEST in collaboration with PO-RALG and NEMC will ensure that ToRs and contracts for contractors if applicable under the Program incorporate environmental and social management clauses as needed.
Weak participation of communities in	The Program will ensure that all heads of schools are trained in community involvement and participatory decision making as part of their training plans.

construction and maintenance of school sanitation facilities	Dissemination and awareness raising activities for environmental and social due diligence measures will be built into the Program.
Consultations are not held for specific purposes such as thematic areas; on land related issues etc.	The Program will undertake inclusive on-going consultations with stakeholders and a training program will be developed for implementers.
Inadequate funds for construction and maintenance of school water and sanitation facilities	The GoT has been making great efforts on mobilizing financing of SWASH from the Government, Development Partners, Communities, and other stakeholders through advocacy and lobbying. It also focuses on the strengthening of management of physical and financial resources for accountability and results that are value for money.
Early Pregnancy further widens gender disparities in transition rates between lower and upper secondary.	Need to develop an approved and costed plan aligned with the Inclusive Education Strategy with actions to reduce girls' drop-out and improve education outcomes (see DLR 1.1)

SECTION VI: RECOMMENDED ACTIONS TO STRENGTHEN SYSTEMS PERFORMANCE

129.   Based on the ESSA applicable to the Program, it is concluded that in general, Tanzania has established comprehensive environmental and social management systems to address the environment, health and safety, as well as majority of the social concerns related to the Program. Such systems are principally well-aligned with the core principles and key planning elements as defined in the Bank Policy for PforR. However, there are certain inadequacies and gaps from the perspective of actual implementation of such system identified through this ESSA, based on which the following actions are recommended to be included in the DLIs and/or Program Action Plan.

130.   The Program is to enhance equitable access to and improve teaching and learning environments in government secondary schools with a focus on mathematics and sciences. The environmental and social risk for the Program has been rated **moderate**.   Actions to strengthen system performance for environmental and social management at the Program level are summarized as below.

Table 6.1: Actions to Strengthen System Performance for Environmental and Social Management

Objective	DLRs	Environmental and Social Management Actions
To improve environmental and social management systems in education sector	DLI 3 Percentage of secondary schools in each LGA with minimum infrastructure package	Under the ongoing EPforR, the following actions will be taken. • The national guidelines on school construction will be reviewed and revised to include appropriate environmental and social management requirements in design, construction, operation and maintenance of school infrastructures. • Additional guidelines for promoting sustainable and "greener" building designs, as well as designs taking into account students with disabilities, greener measures to allow better resource management and larger involvement of beneficiary communities for supervising works, payment to contractors, contribution to school facilities improvement including aspects from the National School WASH Strategic Plan, maintenance of facilities will also be considered during the review and revision of national guidelines for school construction. • The School Construction Strategy will clarify agencies, roles and responsibilities, as well as incentives and training for monitoring and reporting of implementation of the environmental and social management requirements in school construction. And where land appropriation and resettlement becomes necessary, the strategy should seek to adopt measures and guidelines consistent with Bank policies. • School construction under the SEQUIP program should follow the updated national guidelines on school construction and the School Construction Strategy.

Objective	DLRs	Environmental and Social Management Actions
	Program Action Plan	The Program coordination team will include qualified environmental and social specialists.
To improve capacity for supervision of environmental and social performance (improve enforcement)	Program Action Plan	Secondary school level data on access/availability of electricity and number of water points and source are available.
To improve systems for Information Disclosure, Stakeholders Consultation and Voice without fear of Retaliation	Program Action Plan	A Grievance Redress Mechanism (GRM) to be established at the school and LGA levels. The operation structure, timeline for case handling and protocols of the GRM and a complaint hotline will be crafted with stakeholder input and made available to the public and a workshop/s undertaken at early implementation stage to sensitize national and selected local governments and schools. The GRM should be enhanced and equipped across the entire system from National to School levels to incorporate inclusive education issues included in MoEST's Inclusive Education Strategy.
To Increase female transition rate between lower and upper secondary schools	Program Action Plan	Develop an approved and costed plan aligned with the Inclusive Education Strategy with actions to reduce girls' drop-out and improve education outcomes (see DLR 1.1).

131. **The Grievance/Complaint Redress Mechanism.** Communities and individuals who believe that they are adversely affected as a result of this Program may submit complaints to the grievance redress mechanisms (GRM) at the national and/or local levels as described below.

a) **National Level:** At the national level there is a government portal (the open Data portal/website for Govt of Tanzania) available for registering complaints. In addition, the education sector through MoEST also has a portal used for registering complaints. The existence of this mechanism needs to be widely disseminated. In addition, the implementers of both the portals need to have a person identified for responding to the complainant (with given time lines) or forward the complaint to the relevant person for redressal.

b) **At the Local Level:** The following systems are in place at the local level:
   i)   LGAs have a complaint box to receive complaints and provide resolutions.
   ii)   Village Committees/Sub-ward Committees also have a similar mechanism for handling complaint. They respond to the complainant or forward to the next higher level for redress of issues that are beyond their jurisdiction
   iii)   School Boards (for secondary schools) are responsible to receive and resolve complaints. Evidences (e.g. submission of operations log or reports of at least one month and a case report) will be collected during the Program implementation to show these measures are working.

MOEST and PO-RALG will use logbook/log sheet which will record the grievances related to the program with the timeline and process in resolving the grievances

SECTION VII: STAKEHOLDER CONSULTATION

132.   The ESSA process, built on the ESSA prepared for the current EPforR, including stakeholder consultations. The disclosure of the ESSA Report will follow the guidelines of the World Bank's Access to Information Policy. Feedback from stakeholders will be instrumental in designing and revising the Program Action Plan and DLIs.

133.   Technical consultations with MoEST and PO-RALG was during September 20-21, 2017 and November 29-30, 2017 in Dodoma and in Dar es Salaam. Bank Specialists undertook series of meetings, consultations with different stakeholders in different government agencies including; (the Environmental and Community Development units, Engineering units, the Policy and Planning Division, and Quality Assurance Divisions of MoEST and PO-RALG. The team had several technical meetings with relevant officers at the municipality and ward levels, such as Tandika, Kibasila (Temeke-Dar Es Salaam), Ihumwa, Kiwanja cha Ndege, Msalato (Dodoma) and development partners and followed up with field work including visits to schools. Supervision Aide-memoires were reviewed for understanding the implementation record of the current EPforR and its ESSA. See Annex II for a list of consulted people.

134.   A multi-stakeholder consultations is planned for January 2018 by PO-RALG and World Bank to receive feedback on the draft ESSA. The list of participants will be from MoEST, PO-RALG, Municipal Officers, Private Sector, education-relevant NGOs, head teachers and school board members. The purpose of the consultation workshop will be to: (a) introduce the ESSA approach under the proposed operation; (b) seek opinions and feedback on the key findings and recommendations of the ESSA; and (c) identify any other possible recommendations/actions that should be added to the proposed Program.

135.   *Presentation and Discussion.* The issues discussed and information provided during the meeting will be summarized in table 7.1.

136.   *Conclusion.*

Table 7.1 Issues raised and responses at the consultation workshop

137.   **Document Dissemination and Public Comment Period.**

Annex I School Visits

School Name	Location	Urban/ rural	No. of Pupil	No. of Teacher	No. of Classrooms	Clean water	Latrine/ Toilets	Electricity	Safety	Play facilities
Kibasila Secondary School	Temeke, Dar es Salaam	Urban	1200			Y (has tap water)	Good condition	Y	Y	Y
Tandika Secondary School	Temeke, Dar es Salaam	Urban	1819	72	20	Y (has tap water)	Y but needs improvement	Y	Not Ok	N0
Kiwanja cha Ndege Secondary School	Dodoma	Urban	506	39	8	Yes	Yes	Y	Seems Ok	No
Ihumwa Secondary School (form 1-4) (built in 2007)	Dodoma	Peri Urban	370 179=M 191=F	26 - 15F, 11M PTR 1:49	14 (2 new ones) Got 197 million TZS for school construction (4 classrooms, 1 admin block, 1 library, 19 pits, and toilet for disables, repairment of old classrooms)	No water point in campus	Improved condition	N, 2 classrooms have solar power	Seems ok	No
MSALATO Secondary School (form 1-6) (built in 1961)	Dodoma	Peri-Urban, a full boarding school for girls only	581, all girls Form1-4: 441 Form 5-6: 140	54 – 28F, 26M	14 Got 939 million TZS for upgrading 8 dormitories	Y (has tap water and well water facility under construction)	Good condition	Y	ok	No
Hombolo Secondary School	Dodoma	Rural	531 – Form 1-4: 388 Form 5-6 143 boys only	23 – 5F, 18M	15 (4 new ones) Got 259 million TZS for 2 dormitories, 4 classrooms, 10 toilets, 2 labs)	No, school buys water for 15,000 TZS/day, urgently needs water for new dormitories and has submitted a	22 (10 new ones to be built)	Y	Seems ok	No

					proposal for well water facilities.				

ANNEX II: List of People Consulted for the ESSA

TANZANIA SECONDARY EDUCATION QUALITY IMPROVEMENT PROGRAM FOR RESULTS

Full Name	Organization	Title/Designation
1. Veronica Lyanga	Temeke Municipality	Statistics & Logistics Officer
2. Yasinta Masoy Matirla	Kibasila Secondary School	Head Teacher
3. Hussein Mpumasi	Tandika Secondary School	Head Teacher
4. Rehema S. Madenge	Dodoma Regional Secretariat	Regional Administrative Secretary
5. Eliud I. Njobellah	Dodoma Regional Secretariat	Regional Administrative Officer
6. Mnamila B. Lusakanyo	PO-RALG	
7. Tulinagwe Ngonile	PO-RALG	Program Engineering Officer
8. Jonaphry Rwagagabo	PO-RALG	Architect
9. Abdallah Membe	Dodoma Municipality	Municipal Secretariat Education Officer
10. Frank W. Masome	Kiwanja cha Ndege Secondary School	Head Teacher
11. Benjamin N. Oganga	PO-RALG	Ag, Director Primary school

12. Odilia Mushi	PO-RALG	Ag DEA

Annex III: Technical Reports and Government Sources

In addition to the laws, policies, regulations and guidelines cited in this report, the ESSA has drawn from a range of sources including academic journals, GoT documents, technical reports, and project documents. This annex lists sources that were used in the preparation of the ESSA.

1. LAWS, INSTITUTIONAL ARRANGEMENT AND CHALLENGES OF THE ENVIRONMENTALMANAGEMENT IN TANZANIA

   Mr. JACOB MOKIWA and Mr. ISAKWISA MWAMUKONDA
   Legal Officers-Legal Services Unit
   Vice President's Office
   Presented at: Global Training Programme on Environmental Law and Policy
   Nairobi, Kenya
   5-13 October, 2015

2. Strengthening the Education Management Information System (EMIS) in Tanzania: Government Actors' Perceptions about Enhancing Local Capacity for Information-based Policy Reforms, Assela M. Luena, University of Massachusetts Amherst, 2012

3. Report of the Technical Assistance provided to the National Sanitation Campaign, Government of Tanzania, C. Ajith Kumar, May 2015

4. Cultural Heritage Management in Tanzania's Protected Areas: Challenges and Future Prospects, by Audax Z. P. Mabulla and John F. R. Bower

5. TOWARDS SUSTAINABLE CULTURAL HERITAGE MANAGEMENT IN TANZANIA: A CASESTUDY OF KALENGA AND MLAMBALASI SITES IN IRINGA, SOUTHERN TANZANIA

   Author(s): PASTORY MAGAYANE BUSHOZI
   Source: The South African Archaeological Bulletin, Vol. 69, No. 200 (DECEMBER 2014), pp.136-141
   Published by: South African Archaeological Society
   Stable URL: http://www.jstor.org/stable/43868708

6. Secondary Education Development program II (SEDP II) 2010 - 2014. Environmental and Social Management Framework. March 2010.

7. The original EPforR ESSA, March 2014

8. The Bank's Policy and Directive for PforR, July 2015

Annex IV: Good Practice Note: Asbestos: Occupational and Community Health Issues

1. SUMMARY

The purpose of this Good Practice Note is to increase the awareness of the health risks related to occupational asbestos exposure, provide a list of resources on international good practices available to minimize these risks, and present an overview of some of the available product alternatives on the market. The need to address asbestos-containing materials (ACM) as a hazard is no longer under debate but a widely accepted fact.

Practices regarding asbestos that are normally considered acceptable by the World Bank Group (WBG) in projects supported through its lending or other instruments are addressed in the WBG's General Environmental, Health and Safety (EHS) Guidelines.[1] This Good Practice Note provide background and context for the guidance in the WBG EHS Guidelines.

Good practice is to minimize the health risks associated with ACM by avoiding their use in new construction and renovation, and, if installed asbestos-containing materials are encountered, by using internationally recognized standards and best practices (such as those presented in Appendix 3) to mitigate their impact. In all cases, the Bank expects borrowers and other clients of World Bank funding to use alternative materials wherever feasible.

ACM should be avoided in new construction, including construction for disaster relief. In reconstruction, demolition, and removal of damaged infrastructure, asbestos hazards should be identified and a risk management plan adopted that includes disposal techniques and end-of-life sites.

2. ASBESTOS AND HEALTH RISKS

2.1. What is Asbestos, and Why are We Concerned with its Use?

Asbestos is a group of naturally occurring fibrous silicate minerals. It was once used widely in the production of many industrial and household products because of its useful properties, including fire retardation, electrical and thermal insulation, chemical and thermal stability, and high tensile strength. Today, however, asbestos is recognized as a cause of various diseases and cancers and is considered a health hazard if inhaled.[2] The ILO estimates that over the last several decades 100,000 deaths globally have been due to asbestos exposure,[3] and the WHO states that 90,000 people die a year globally because of occupational asbestos exposure.[4]

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[1] http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS/$FILE/Final+-+General+EHS+Guidelines.pdf (pp. 71, 91, 94) .

[2] http://www.who.int/occupational_health/publications/draft.WHO.policy.paper.on.asbestos.related.diseases.pdf. See also Stayner L, et al., "Exposure-Response Analysis of Risk of Respiratory Disease Associated with Occupational Exposure to Chrysotile Asbestos." *Occupational Environmental Medicine.* 54: 646-652 (1997).

[3] http://www.ilo.org/wow/Articles/lang--en/WCMS_081341

[4] http://www.who.int/occupational_health/publications/asbestosrelateddiseases.pdf 2

[5] Asbestos defined in Castleman, B. *Asbestos: Medical and Legal Aspects* 5th Ed. New York: Aspen, 2005, 894 pp.

[6] ILO Asbestos Convention No. 162, (see http:www.ilo.org/ilolex or http://www.itcilo.it/actrav/osh_es/m%F3dulos/legis/c162.htm)

[7] http://www.who.int/occupational_health/publications/asbestosrelateddiseases.pdf. Directive 2003/18/EC of the European Council and Parliament amending Council Directive 83/477/EEC, and Directive 99/77/EEC

[8] http://www.euro.who.int/document/aiq/6_2_asbestos.pdf

Over 90% of asbestos[5] fiber produced today is chrysotile, which is used in asbestos-cement (A-C) construction materials: A-C flat and corrugated sheet, A-C pipe, and A-C water storage tanks. Other products still being manufactured with asbestos content include vehicle brake and clutch pads, roofing, and gaskets. Though today asbestos is hardly used in construction materials other than asbestos-cement products, it is still found in older buildings in the form of friable surfacing materials, thermal system insulation, non-friable flooring materials, and other applications. The maintenance and removal of these materials warrant special attention.

Because the health risks associated with exposure to asbestos area now widely recognized, global health and worker organizations, research institutes, and some governments have enacted bans on the commercial use of asbestos (see Box 1), and they urge the enforcement of national standards to protect the health of workers, their families, and communities exposed to asbestos through an International Convention.[6]

BOX 1. BANS ON THE USE OF ASBESTOS AND ASBESTOS PRODUCTS

A global ban on commercial use of asbestos has been urged by the Building and Wood Workers Federation (IFBWW), the International Metalworker's Federation, the International Trade Union Confederation, the government of France, and the distinguished scientific group Collegium Ramazzini. All member states of the European Union and over 40 countries worldwide (see Appendix 1) have banned all forms of asbestos, including chrysotile.[7] In June 2006, the General Conference of the ILO adopted a resolution to "promote the elimination of all forms of asbestos and asbestos-containing materials."

• Landrigan PJ, Soffritti M. "Collegium Ramazzini Call for an International Ban on Asbestos." *Am. J. Ind. Med.* 47: 471-474 (2005).
• The International Ban Asbestos Secretariat keeps track of national asbestos bans. http://ibassecretariat.org./lka_alpha_asb_ban_280704.php
• General Conference of the International Labor Organization, "Resolution Concerning Asbestos," *Provisional Record*, International Labor Conference, Ninety-fifth Session, Geneva, 2006, Item 299, pp. 20/47-48.
• World Health Organization: http://www.who.int/occupational_health/publications/asbestosrelateddiseases.pdf

2.2. Health Concerns Linked to Asbestos-Containing Products

Health hazards from breathing asbestos dust include asbestosis, a lung scarring disease, and various forms of cancer (including lung cancer and mesothelioma of the pleura and peritoneum).[8] These diseases usually arise decades after the onset of asbestos exposure. Mesothelioma, a signal tumor for asbestos exposure, occurs among workers' family members 3

[9] "Asbestos." *World Health Organization IARC Monographs on the Evaluation of Carcinogenic Risks to Humans/ Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs 1 to 42*, Suppl. 7. Lyon: International Agency for Research on Cancer, 1987, pp. 106-116.

[10] Wagner JC, Berry G, Skidmore JW, Timbrell V. "The Effects of the Inhalation of Asbestos in Rats." *Br. J. Cancer* 29: 252-269 (1974).

[11] International Program on Chemical Safety, "Conclusions and Recommendations for Protection of Human Health," *Chrysotile Asbestos*, Environmental Health Criteria 203. Geneva: World Health Organization, 1998, p. 144.

[12] http://whqlibdoc.who.int/hq/2000/a68673_guidelines_3.pdf

[13] http://whqlibdoc.who.int/hq/2000/a68673_tech_aspects_4.pdf

[14] Jones, Robert "Living in the Shadow of the Asbestos Hills (The Need for Risk Based Cleanup Strategies for Environmental Asbestos Contamination in South Africa)." Environmental Exposure, Crisis Preparedness and Risk Communication, Global Asbestos Congress, Tokyo, Japan, November 19 - 21, 2004. http://park3.wakwak.com/~gac2004/en/index_abstract_e.html. See also Oberta, AF "Case Study: An Asbestos Cement Plant in Israel -- Contamination, Clean-up and Dismantling." Hellenic Asbestos Conference, Athens, Greece, October 29 - 31, 2002. http://www.ibas.btinternet.co.uk/Frames/f_lka_hellen_asb_conf_rep.htm

[15] Boer, A.M., L.A. Daal, J.L.A. de Groot, J.G. Cuperus "The Combination of the Mechanical Separator and the Extraction Cleaner Can Process the Complete Asbestos-containing Waste-stream and Make it Suitable for Reuse."

from dust on the workers' clothes and among neighbors of asbestos air pollution point sources.[9] Some experimental animal studies show that high inhalation exposures to all forms of asbestos for only hours can cause cancer.[10] Very high levels of airborne asbestos have been recorded where power tools are used to cut A-C products and grind brake shoes. For chrysotile asbestos, the most common variety, there is no threshold (non-zero) of exposure that has been shown to be free from carcinogenic risks. Construction materials are of particular concern, because of the large number of workers in construction trades, the difficulty of instituting control measures, and the continuing threat posed by in-place materials that eventually require alterations, repair, and disposal.[11] Renovations and repairs in buildings containing A-C materials can also endanger building occupants. In addition to the problems from products made with commercial asbestos, asbestos also occurs as a contaminant in some deposits of stone, talc, vermiculite, iron ore, and other minerals. This can create health hazards for workers and residents at the site of excavation and in some cases in the manufacture and use of consumer products the materials are used to make. While asbestos is a known carcinogen when inhaled, it is not known to be carcinogenic when ingested, as through drinking water,[12] although pipe standards have been issued for asbestos-cement pipes conducting "aggressive" water.[13]

From the industrial hygiene viewpoint, asbestos creates a chain of exposure from the time it is mined until it returns to the earth at landfill or unauthorized disposal site. At each link in the chain, occupational and community exposures coexist. Workers in the mines are exposed to the fibers while extracting the ore; their families breathe fibers brought home on work clothes; workers in the mills and factories process the fiber and manufacture products with it; and their families are also secondarily exposed. Communities around the mines, mills, and factories are contaminated with their wastes; children play on tailings piles and in contaminated schoolyards; transportation of fiber and products contaminates roads and rights-of-way.[14] Tradesmen who install, repair and remove ACM are exposed in the course of their work, as are bystanders in the absence of proper controls. Disposal of asbestos wastes from any step in this sequence not only exposes the workers handling the wastes but also local residents when fibers become airborne because of insufficient covering and erosion control. Finally, in the absence of measures to remove ACM from the waste stream and dispose of them properly, the cycle is often repeated when discarded material is scavenged and reused.[15] 4

European Conference on Asbestos Risks and Management, Rome, Italy, December 4 -6, 2006.
http://venus.unive.it/fall/menu/Boer.pdf

[16] R. Virta, US Geological Survey, 2007.

[17] www.ilo.org/ilolex

[18] http://www.ilo.org/ilolex/english/convdisp1.htm

2.3. Increasing Use of Asbestos Fiber

There is evidence that, after a decline in the 1990s, the use of asbestos fiber is increasing globally. A recent study[16] shows that a 59% increase in metric tons was consumed in 12 countries from 2000 to 2004.

3. INTERNATIONAL CONVENTION AND STANDARDS FOR WORKING WITH ASBESTOS

3.1. International Convention

The International Labor Organization (ILO) established an Asbestos Convention (C162) in 1986 to promote national laws and regulations for the "prevention and control of, and protection of workers against, health hazards due to occupational exposure to asbestos."[17] The convention outlines aspects of best practice: Scope and Definitions, General Principles, Protective and Preventive Measures, Surveillance of the Working Environment, and Workers' Health. As of March 4, 2008, 31 countries had ratified the Convention;[18] 17 of them have banned asbestos.

Some of the ILO asbestos convention requirements:
- work clothing to be provided by employers;
- double changing rooms and wash facilities to prevent dust from going home on street clothes;
- training of workers about the health hazards to themselves and their families;
- periodic medical examinations of workers,
- periodic air monitoring of the work environment, with records retained for 30 years;
- development of a work plan prior to demolition work, to protect workers and provide for proper waste disposal; and
- protection from "retaliatory and disciplinary measures" of workers who remove themselves from work that they are justified in believing presents a serious danger to health.

Standard considerations for working with and procuring ACM are common to most projects. An overview of some basic ones is provided in Appendix 5.

3.2. International Standards and National Regulations

Standards and regulations for work involving ACM have been published by nongovernmental organizations and government agencies. Appendix 3 provides a listing of some resources, including international organizations (e.g., WHO, ISO, ASTM) and national governments (e.g., UK, US, Canada, South Africa). The resources range from manuals to individual standards and cover a variety of work guidelines, including surveys, identification, inspection, maintenance, renovation, repair, removal, and disposal. Some of the key issues discussed in these standards and regulations are as follows: 5

See Appendix 3.
See Basel Convention Secretariat http://www.basel.int/

- **The scale of occupational hazards.** The health risk is not simply a function of the properties of the ACM, but also reflects the type of work being done and the controls used. Although A-C products, for example, may seem to intrinsically present less of a risk than fire-proofing, air monitoring has shown that cutting dry A-C sheet with a power saw can release far greater amounts of airborne fibers than scraping wet, saturated fireproofing off a beam. The relationship between the nature of A-C products, the work being done and the controls used to control the release of fibers and debris is important (as discussed in ASTM E2394 and HSG189/2[19]).

- **Controlling exposure to airborne fibers.** Because asbestos fibers are primarily an inhalation hazard, the basic purpose of the regulations and standards is to control the concentration of asbestos fibers in the air inhaled by workers or others. Concentration limits have been set by regulations in numerous countries for workers whose duties involve contact with ACM; however, they do not purport to totally eliminate the risk of asbestos disease, but only to reduce it. Exposure limits for individuals other than workers, including occupants of buildings and facilities and the community, are lower than those for workers in deference to the very young and old as well as the physically compromised.

- **Measuring exposure to airborne fibers.** Compliance with exposure limits is demonstrated by air sampling in workers' breathing zone or in the space occupied by the affected individuals, with analysis of the sample by optical or electron microscopy, as explained in Appendix 3. Abatement protocols determine whether a building can be reoccupied after asbestos abatement.

- **Proper disposal.** Proper disposal of ACM is important not only to protect the community and environment but also to prevent scavenging and reuse of removed material. ACM should be transported in leak-tight containers to a secure landfill operated in a manner that precludes air and water contamination that could result from ruptured containers. Similar requirements apply to remediation of sites such as mines, mills, and factories where asbestos fiber was processed and products manufactured. (See EPA NESHAP regulations, Appendix 3.)

- **Transboundary movement of waste**. Waste asbestos (dust and fibers) is considered a hazardous waste under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The Basel Convention imposes use of a prior informed consent procedure for movement of such wastes across international borders. Shipments made without consent are illegal. Parties have to ensure that hazardous waste is disposed of in an environmentally sound manner (ESM. Strong controls have to be applied from the moment of generation, to its storage, transport, treatment, reuse, recycling, recovery and final disposal[20]

- **Identifying asbestos products.** A-C products include flat panels, corrugated panels used for roofing, water storage tanks, and pressure, water, and sewer pipes. In some countries asbestos

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[21] In 2004, Russia, China, India, Kazakhstan, Thailand, and Ukraine together accounted for about three-quarters of world asbestos consumption. Other major consumers of asbestos are Iran, Brazil, Vietnam, and Indonesia.

[22] 7. The U.K. Health and Safety Executive commissioned a report that concluded that the main replacement fibrous materials for asbestos in fiber-cement products and brakes are less hazardous than chrysotile asbestos. See Harrison PTC, *et al.* "Comparative Hazards of Chrysotile Asbestos and Its Substitutes: A European Perspective." *Envir. Health Persp.* 107: 607-611 (1999). http://www.ehponline.org/members/1999/107p607-611harrison/harrison-full.html

[23] http://www.who.int/ipcs/assessment/asbestos/en/

may still be used in making wallboard, heat-resistant gloves and clothes for industrial use, and brake and clutch friction elements and gaskets used in vehicles.[21] Thermal insulation containing asbestos and sprayed asbestos for insulation and acoustic damping were widely used through the 1970s and should be looked for in any project involving boilers and insulated pipes. Insulation dating from before 1980 should be presumed to contain asbestos unless analyzed and found not to. The microscopic methodology for analyzing bulk samples for the presence of asbestos is widely available in industrialized countries and is not expensive; it is less available in developing countries. In a developing country samples may have to be mailed out for testing; alternatively, training may be available for a laboratory in the country.

☐ **Training.** It is impossible to overemphasize the importance of training for working with ACM in any capacity—whether it involves inspections, maintenance, removal, or laboratory analysis. The duration of the training as well as the course content depends on the type of work the individual will be doing. Quality control and proficiency testing for laboratories and individual analysts are also important.

4. ALTERNATIVES TO ASBESTOS-CONTAINING MATERIALS

4.1. Growing Marketplace

Safer substitutes for asbestos products of all kinds are increasingly available (see Appendix 4). These include fiber-cement products using combinations of local vegetable fibers and synthetic fibers, as well as other products that serve the same purposes.[22] The WHO is actively involved in evaluating alternatives.[23]

4.2. Cost and Performance Issues

Fiber-cement roof panels using polyvinyl alcohol (PVA) or polypropylene combined with cellulose now cost 10-15% more to manufacture than A-C sheets. Polypropylene-cellulose-cement roofing, a new product, is made at a cost of about 12 percent more than A-C roofing and has superior impact resistance. The non-asbestos fiber-cement panels are lighter, less brittle, and have improved nailability over A-C. The increase in the overall cost of building construction that such products represent is to some degree offset by the obviation of special hygiene measures in installation/maintenance/renovation, the lack of a continuing hazard to building workers and occupants, and reduced costs of waste removal and disposal. Micro concrete tiles are cheaper than A-C to produce, and can be made in a basic workshop near the building site with locally available small contractors and materials, lowering transport costs. Compared with A-C pipes, iron pipes can be transported and installed with less difficulty and breakage, take greater compression loading and last longer. 7

[24] Defined as the exercise of professional skill, diligence, prudence, and foresight that would be reasonably expected from skilled and experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally. The circumstances that skilled and experienced professionals may find when evaluating the range of pollution prevention and control techniques available to a project may include, but are not limited to, varying levels of environmental degradation and environmental assimilative capacity as well as varying levels of financial and technical feasibility

[25] http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS/$FILE/Final+-+General+EHS+Guidelines.pdf (pp. 71, 91, 94)

[26] Training of specialized personnel and the maintenance and removal methods applied should be equivalent to those required under applicable regulations in the United States and Europe (examples of North American training standards are available at: http://www.osha.gov/SLTC/asbestos/training.html)

[27] Examples include the ASTM International E1368 - Standard Practice for Visual Inspection of Asbestos Abatement Projects; E2356 - Standard Practice for Comprehensive Building Asbestos Surveys; and E2394 - Standard Practice for Maintenance, Renovation and Repair of Installed Asbestos Cement Products.

[28] http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS/$FILE/Final+-+General+EHS+Guidelines.pdf (pp. 71, 91, 94)

5. WORLD BANK GROUP APPROACH TO ASBESTOS HEALTH RISK

The WBG EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP).[24] When one or more members of the WBG are involved in a project, the EHS Guidelines are applied as required by their respective policies and standards.

The WBG's EHS Guidelines[25] specify that the use of ACM should be avoided in new buildings and construction or as a new material in remodeling or renovation activities. Existing facilities with ACM should develop an asbestos management plan that clearly identifies the locations where the ACM is present, its condition (e.g., whether it is in friable form or has the potential to release fibers), procedures for monitoring its condition, procedures to access the locations where ACM is present to avoid damage, and training of staff who can potentially come into contact with the material to avoid damage and prevent exposure. The plan should be made available to all persons involved in operations and maintenance activities. Repair or removal and disposal of existing ACM in buildings should be performed only by specially trained personnel[26] following host country requirements or, if the country does not have its own requirements, internationally recognized procedures.[27] Decommissioning sites may also pose a risk of exposure to asbestos that should be prevented by using specially trained personnel to identify and carefully remove asbestos insulation and structural building elements before dismantling or demolition.[28] 8

APPENDIX 1. COUNTRIES THAT HAVE BANNED THE USE OF ASBESTOS

1. Argentina
2. Australia
3. Austria
4. Belgium
5. Bulgaria
6. Chile
7. Cyprus
8. Czech Republic
9. Denmark
10. Egypt
11. Estonia
12. Finland
13. France
14. Gabon
15. Germany
16. Greece
17. Honduras
18. Hungary
19. Iceland
20. Ireland
21. Italy
22. Japan
23. Jordan
24. Kuwait
25. Latvia
26. Lithuania
27. Luxembourg
28. Malta
29. Netherlands
30. Norway
31. Poland
32. Portugal
33. Republic of Korea
34. Romania
35. Saudi Arabia
36. Seychelles
37. Slovakia
38. Slovenia
39. South Africa
40. Spain
41. Sweden
42. Switzerland
43. United Kingdom
44. Uruguay

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APPENDIX 2. WORLD BANK GROUP ASBESTOS REFERENCES *Policy guidance*	*References*

ACM should be avoided in new buildings or as new material in remodeling or renovation • Existing buildings: ACM Survey and management plan needed • Disposal of ACM shall be carried out by specially trained individuals only following host country requirements, or in their absence, internationally recognized procedures	*Guidance: General Environment Health and Safety Guidelines April 2007, p 34 and 71.*
Some examples of project requirements: • risk assessment to determine extent of problem; surveys to abate asbestos exposure; management plan; removal by trained personnel; prohibition of ACM; procedures for handling, removal, transport, and disposal of asbestos.	• Ukraine -Equal Access to Quality Education (Project ID PO77738) • KH- Health Sector Support (Project ID: P070542) • ID- Health Workforce and Services (Project. ID: P073772) • Changchun, China -TBK Shili Auto Parts Co., (IFC, 2005)

Annex V: ECOPs for construction

Items	Mitigation measures
Prohibitions	The following activities are prohibited on or near construction sites: (1) Cutting of trees for any reason outside the approved construction area; (2) Illegal dumping of demolition material and debris; (3) Use of unapproved toxic materials, including lead-based paints, asbestos, etc.; (4) Disturbance to anything with architectural or historical value; (5) Burning of waste;
Working hours	Core working hours should be from 0800 to 1800 on weekdays and 0800 to 1300 on weekend. Noisy operations shall not take place outside these hours without prior approval from the PIU and relevant authorities. Individual construction site requirements which differ from the above should be considered on a site-by-site basis.
Good housekeeping	The Contractor should follow a 'good housekeeping' policy at all times. This should include, but not necessarily be limited to the following: (1) Ensure considerate behavior of the Contractor's staff; (2) Prohibit open fires; (3) Ensure that appropriate provisions for dust control and road cleanliness are implemented; (4) Remove rubbish at frequent intervals, leaving the construction sites clean and tidy; (5) Remove food waste; (6) Frequently inspect, repair and re-paint as necessary all construction site hoardings (7) Remove all flying posts/boards as soon as reasonably practicable and within 24 hours of notice; (8) Maintain toilet facilities and other welfare facilities for staff;
Public information and site access	Any un-authorized entry to or exit from the construction sites should be restricted as much as possible. Upon request, the Contractor should provide public information on the construction program (start and finish dates), plus a telephone number for public contacts and/or requests.
Construction Site layout and facilities	Any huts, office accommodations, toilets and welfare facilities should be accommodated within the boundaries of the construction sites

Nuisance, Dust and Noise Control	To limit nuisance, dust and noise on construction sites, the Contractor should: (1) Plan activities in consultation with the PIU or delegated agencies and authorities, building owners, and/or local communities so that activities with a great potential to generate noise are planned during the periods of the day that should result in least disturbance (2) Use noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, and exhaust muffling devices for combustion engines. (3) Avoid or minimize heavy project transportation through community areas (4) To the extent possible, maintain noise levels associated with all machinery and equipment at or below 90 db. (5) Apply proper measures to minimize disruptions from vibration or noise coming from construction activities. (6) Implement particularly strict measures to prevent undesirable noise levels in sensitive areas (including in residential neighborhoods, near hospitals, etc.). In such areas, minimize the production of dust and particulate materials at all times, to avoid impacts on vulnerable people (children, elders). (7) Selectively remove potential hazardous air pollutants, such as asbestos, from existing infrastructure prior to demolition. (8) Place dust screens around construction areas, provide fencing along the boundary so that emissions do not affect immediate neighbors, pay particular attention to areas close to housing, commercial areas, and recreational areas. (9) Spray water periodically as needed on construction areas, especially at site located near residential area
Management of Construction Waste	*Waste management planning.* Possible construction wastes should be characterized according to composition, source, types of wastes produced, generation rates, or according to local regulatory requirements. Processes should be designed and operated as much as possible to prevent or minimize the quantities of wastes generated and hazards associated with the wastes generated. For example: (1) Substitute raw materials or inputs with less hazardous or toxic materials; (2) Institute good housekeeping and operating practices (3) Institute procurement measures that recognize opportunities to return usable materials such as containers; (4) Minimize hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste. *Recycling planning.* The total amount of waste may be significantly reduced through the implementation of recycling plans. This may for example include the evaluation of waste production processes and the identification of potentially recyclable materials. *Clean-up procedures.* The Contractor shall establish and enforce daily site clean-up procedures, including maintenance of adequate storage and treatment/disposal facilities for construction wastes to avoid potential impacts to human health and the environment. Management approaches should be consistent with the characteristics of the waste and local regulations, and may include one or more of the following principles: (1) On-site or off-site biological, chemical, or physical waste material should either be treated to render it nonhazardous prior to final disposal or treated or disposed at permitted facilities specially designed to receive the waste. (2) Debris generated due to the demolition of existing structures shall be suitably reused, to the extent feasible. The disposal of remaining debris shall be carried out only at sites identified and approved by local authorities.

	(3) Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.
	(4) All garbage, metals, used oils, and excess material generated during construction should be disposed in authorized areas incorporating recycling systems and the separation of materials.
	(5) In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such debris and restore the affected area to its original state to the satisfaction of the PIU or delegated agencies and authorities.
Small Quantities of Hazardous Materials	Construction and decommissioning activities may pose the potential for release of small quantities of hazardous materials. The contractor should screen and assess the presence and contents of hazardous materials and petroleum-based products in building systems (e.g. PCB containing electrical equipment, asbestos-containing building materials, lamps or lamp ballasts, used batteries, empty paint cans) and process equipment and remove them prior to initiation of decommissioning activities, and manage their treatment and disposal according to Sections 1.5 and 1.6 on Hazardous Materials and Hazardous Waste Management, respectively in the World Bank Group's General EHS guidelines (www.ifc.org/ehsguidelines). In particular, hazardous wastes should always be segregated from nonhazardous wastes. If generation of hazardous waste cannot be prevented through the implementation of the above general waste management practices, its management should focus on the prevention of harm to health, safety, and the environment, according to the following additional principles:
	(1) Understand potential impacts and risks associated with the management of the hazardous waste during its complete life cycle
	(2) Ensure that Contractors responsible for the handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following good international industry practice for the waste being handled
	(3) Ensure compliance with applicable local and international regulations. International requirements may include host-country commitments under the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their disposal (http://www.basel.int/) and the Rotterdam Convention on the prior Inform Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (http://www.pic.int/)
	(4) Especially, if asbestos-containing materials are identified, the WBG Good Practice Note on on Asbestos: Occupational and Community Health Issues dated May 2009 (Appendix 2) should be followed.
Wastewater discharges	The Contractor must take all the efforts to prevent wastes (solid and liquid) discharge into all rivers and canals and to protect surface and groundwater from pollution and other adverse impacts including changes to water levels, flows and general water quality. Whenever possible, the Contractor must minimize the amounts of wastewater that need to be discharged and find alternative means of disposal. Liquid spills of lubricant, fuel and oil within the site should be attended at the earliest in order to minimize land and groundwater contamination. The Contractor must ensure that any seepage and wastewater arising from the works must be collected and discharged via a settlement tank. Water drainage must be designed to avoid stagnant conditions that could create bad smell and unsanitary condition in the construction area and surrounding environment.
Construction safety	*Emergency Procedures:* The Contractor must ensure that emergency procedures are developed to facilitate effective actions in case of medical/fire emergency as well as environmental pollution (major spillage of gasoline, used oil, and/or toxic chemicals,

	etc.). The emergency procedure must contain emergency phone numbers and the method of notifying the statutory authorities. Contact numbers for the key staff of the contractor must also be included.
	Fire Prevention and Control: All construction sites and associated accommodation or welfare facilities must have appropriate plans and management controls to prevent fires in place. The site fire plans must be prepared and must have due regard to government regulations. During operation and maintenance of equipment and vehicles, the Contractor must ensure that its workers are well aware of the procedures and have enough knowledge to comply with them. The specification of non-combustible materials, products and packaging should be pursued wherever reasonably practicable. The Contractor must also comply with government requirements as may be appropriate at specific sites.
	Operation of equipment: The Contractor must take all reasonable precautions to ensure that equipment is operated in a manner so as not to cause safety risk and/or nuisance to surrounding residents and occupiers. Operations of cranes and other large equipment must be closely supervised. Permission may be required.
	Accident prevention. The Contractor's responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all government safety requirements and any other measures necessary to avoid accidents, including the following: (1) Properly install notice signs/board at construction sites (2) If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours; (3) Conduct safety training for construction workers prior to beginning work; (4) Provide necessary personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and -shanked boots, etc.,) for construction workers and enforce their use; (5) Ensure that the removal of asbestos-containing materials or other toxic substances be performed and disposed of by specially trained workers; (6) During emergencies of any kind, suspend all work.
Workforce and Workers sanitation	(1) The Contractor should whenever possible locally recruit the majority of the workforce and shall provide appropriate training as necessary. (2) The Contractor shall not allow the use of fuel wood for cooking or heating at the construction site or surrounding area. (3) The Contractor shall ensure that site offices, depots, and workshops are located in appropriate areas. Clean and well-maintained toilets should be made available. (4) The Contractor shall adequately provide workers with clean.
Community Relations	To enhance adequate community relations the Contractor shall: (1) Inform the local authorities and community about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, as appropriate.; (2) Limit No construction activities at night. (3) Prepare code of conduct on acceptable behavior around the schools and communities at large.
Physical Cultural Property	In the unlikely event that physical cultural property chance-finds occur, responsible local authorities would be in charge of protecting and preserving any archeological sites, historical sites, remains and objects before deciding on subsequent appropriate procedures. The significance and importance of the findings should be assessed

Chance-finds Procedures	according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage. If the Contractor discovers archeological sites, historical sites, remains and objects the Contractor shall: (1) Stop the construction activities in the area of the chance find; (2) Delineate the discovered site or area; (3) Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities take over; (4) Notify the supervisory Engineer who in turn should notify the responsible local authorities immediately (within 24 hours or less); (5) Resume construction work after permission is given from the responsible local authorities concerning safeguard of the heritage.
Clearance the construction site after completion	On completion of the works the Contractor should clear away and remove all materials and rubbish and temporary works of every kind. Construction sites should be left clean and in a condition to the satisfaction of the PIU or delegated agencies and authorities.