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The World Bank

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Report No: PAD1242

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT IN THE AMOUNT OF SDR 50.8 MILLION
(US$70 MILLION EQUIVALENT)

AND

A PROPOSED CREDIT IN THE AMOUNT OF SDR 94.3 MILLION
(US$130 MILLION)

TO THE

DEMOCRATIC REPUBLIC OF CONGO

FOR THE

QUALITY AND RELEVANCE OF SECONDARY AND TERTIARY EDUCATION PROJECT

May 4, 2015

Education Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2015)

Currency Unit	=	Congolese Franc
CDF 925	=	US$1
US$1	=	SDR 0.72490558

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency *(Agence Française de Développement)*
AfDB	African Development Bank
APEFE	Association for the Promotion of Education and Training Abroad *(Association pour la Promotion de l'Education et de la Formation à l'Etranger)*
BAP	Certificate of Professional Compétence *(Brevet d'Aptitude Professionnelle)*
CAP	Certificate of Professional Compétence *(Certificat d'Aptitude Professionnelle)*
CAS	Country Assistance Strategy
CAT	Technical Assistance Unit *(Cellule d'Assistance Technique)*
CGPMP	Project Management Unit and Public Procurement *(Cellule de Gestion de Projets et des Marchés Publics)*
CIETFP	Inter-ministerial TVET Commission *(Commission Interministérielle de l'Enseignement Technique et de la Formation professionnelle*)
CNIE	The National Centre for Environmental Information/The Regulation Cell and Environmental Litigation *(le Centre National d'Information sur l'Environnement / La Cellule Réglementation et Contentieux Environnementaux)*
CT	Heads of Work *(Chefs de Travaux)*
CSR	Education Country Status Report
CTB	Belgian Technical Cooperation
DA	Designated Account
DAF	Direction of Resource Management (*Direction des Affaires Financières)*
DEP	Directorate of Studies and Planning *(Directions des Etudes et de la Planification)*
DETFP	Directorate of Technical and Vocational Education
DIPROMAD	Directorate of Curricula and Didactic Material
DIS	Directorate of Infrastructure
DRC	Democratic Republic of Congo
ECC	Catholic aided schools *(Ecoles Conventionnées Catholiques)*
ECD	Early Childhood Development
ECF	Aided schools of the Brotherhood *(Ecoles Conventionnées de la Fraternité)*
ECI	Islamic aided schools *(Ecoles Conventionnées Islamiques)*
ECK	Schools under Kimbanguists agreement *(Ecoles Conventionnées*

	Kimbanguistes)
ECP	Schools under Protestant agreement *(Ecoles Conventionnées Protestantes)*
ECS	Schools under Salvationists agreement *(Ecoles Conventionnées Salutistes)*
ENC	Schools not under agreement *(Ecoles Non Conventionnées)*
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Education Sector Strategy
GER	Gross Enrollment Rate
GDP	Gross Domestic Product
GPE	Global Partnership for Education
GPN	General Procurement Notice
HDI	Human Development Index
HEI	Higher Education Institution
ICT	Information and Communications Technology
IDA	International Development Association
IECD	Institute for Entrepreneurship and Career Development
IFPRI	International Food Policy Research Institute
IFR	Interim Financial Report
IMF	International Monetary Fund
INBTP	National Institute of Building and Public Works (*Institut National du Bâtiment et des Travaux Publics)*
INPP	National Institute for Professional Preparation (*Institut National de Préparation Professionnelle)*
IPF	Investment Project Financing
IPPF	Indigenous Peoples Planning Framework
ISPT	Higher Education Institutes *(Institut Supérieur Pédagogique et Technique)*
ISP	Higher Teacher Training Institute *(Institut Supérieur Pédagogique)*
IST	Higher Technical Institute *(Institut Supérieur Technique)*
ISTA	Higher Institute of Applied Technology (*Institut Supérieur des Techniques Appliquées)*
IT	Information Technology
JICA	Japan International Cooperation Agency
LMD	License – Masters – Doctorate System
M&E	Monitoring and Evaluation
MECNT	Ministry of Environment, Nature Conservation and Tourism (*Ministère de l'Environnement, de la Conservation de la Nature et du Tourisme)*
MEPS-INC	Ministry of Primary, Secondary and Citizenship Initiation *(Ministère de l'Enseignement Primaire, Secondaire et Initiation à la Nouvelle Citoyenneté)*
MESU	Ministry of Higher Education and Scientific Research *(Ministère de l'Enseignement Supérieur, Universitaire et Recherches Scientifiques)*
METP	Ministry of Technical and Vocational Education *(Ministère de l'Enseignement Technique et Professionnelle)*
PARSE	Education Sector Development Project
PBC	Performance-Based Contracts
PDO	Project Development Objective
PFM	Public Financial Management
PMR	Procurement Management Report
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Paper

QA	Quality Assurance
RPF	Resettlement Policy Framework
SSA	Sub-Saharan Africa
SC	Steering Committee
SDP	School Development Plan
SG	Secretary General
SPN	Specific Procurement Notice
STEM	Science, Technology, Engineering and Mathematics
TA	Technical Assistance
TFR	Total Fertility Rate
TST	Technical Support Team
TVET	Technical and Vocational Education and Training
VVOB	Flemish Association for Dev. Cooperation and Technical Assistance

Regional Vice President:	Makhtar Diop
Country Director:	Ahmadou Moustapha Ndiaye
Senior Global Practice Director:	Claudia Maria Costin
Practice Manager:	Peter Nicolas Materu
Task Team Leader:	Dung-Kim Pham

DEMOCRATIC REPUBLIC OF CONGO
Quality and Relevance of Secondary and Tertiary Education Project

TABLE OF CONTENTS

PAD DATA SHEET

Congo, Democratic Republic of

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

PROJECT APPRAISAL DOCUMENT

AFRICA

Report No.: PAD1242

Basic Information		
Project ID P149233	EA Category B - Partial Assessment	Team Leader(s) Dung-Kim Pham
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]	
Project Implementation Start Date 26 May-2015	Project Implementation End Date 30-Jun-2021	
Expected Effectiveness Date 31 October-2015	Expected Closing Date 31-Dec-2021	
Joint IFC No		

Practice Manager/Manager	Senior Global Practice Director	Country Director	Regional Vice President
Peter Nicolas Materu	Claudia Maria Costin	Ahmadou Moustapha Ndiaye	Makhtar Diop

Borrower: Ministry of Finance and Budget			
Responsible Agency: Ministry of Higher Education			
Contact:	Théophile Mbemba Fundu	Title:	Minister
Telephone No.:	2430817006967	Email:	theofund@yahoo.fr
Responsible Agency: Ministry of Primary and Secondary Education and introduction to the new Citizenship			
Contact:	Maker Mwangu Famba	Title:	Minister
Telephone No.:	243811762786	Email:	makeryvet@hotmail.com
Responsible Agency: Ministry of Technical and Professional Education			
Contact:	Jean Nengbangba Tshingbanga	Title:	Minister
Telephone No.:	243990903854	Email:	nengbangbajean@yahoo.fr

Project Financing Data(in USD Million)

[ ]	Loan	[X]	IDA Grant	[ ]	Guarantee
[X]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	200.00	Total Bank Financing:	200.00
Financing Gap:	0.00		

Financing Source	**Amount**
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	130.00
IDA Grant	70.00
Total	200.00

Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021	2022
Annual	2.00	25.00	25.00	30.00	33.00	45.00	40.00
Cumulative	2.00	27.00	52.00	82.00	115.00	160.00	200.00

Institutional Data

Practice Area (Lead)

Education

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[X] Fragile, Conflict & Violence
[ ] Gender
[X] Jobs
[X] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Education	Secondary education	40		
Education	Tertiary education	30		
Education	Vocational training	30		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information

applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Human development	Education for the knowledge economy	100
Total		100

Proposed Development Objective(s)

The objectives of the project are to: (i) improve the teaching and learning of mathematics and science in general secondary education, and (ii) enhance relevance of technical and vocational education and training (TVET) in priority sectors at secondary and tertiary levels.

Components

Component Name	**Cost (USD Millions)**
Component 1: Improve the teaching and learning of mathematics and science in general secondary education	101.20
Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels	86.80
Component 3: Project coordination, monitoring and evaluation	12.00

Systematic Operations Risk- Rating Tool (SORT)

Risk Category	**Rating**
1. Political and Governance	High
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	High
7. Environment and Social	Moderate
8. Stakeholders	Substantial
OVERALL	High

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [ ]
Does the project meet the Regional criteria for readiness for	Yes [X] No [ ]

implementation?	

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04	X	
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11	X	
Indigenous Peoples OP/BP 4.10	X	
Involuntary Resettlement OP/BP 4.12	X	
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

Legal Covenants

Name	Recurrent	Due Date	Frequency
Amendment of "Arrêté No. MINEPSP/CABMIN/0014/201"		30-Nov-2015	

Description of Covenant

On or before one month after the Effective Date, the Recipient shall amend the Arrêté No. MINEPSP/CABMIN/0014/2014 dated July 2, 2014 to include the overall coordination of the Project by CAT; all in form and substance satisfactory to the Association.

Name	Recurrent	Due Date	Frequency
Steering Committee		30 Nov-2015	

Description of Covenant

Establish no later than one (1) month after the Effective Date and thereafter maintain throughout the period of project implementation the Steering Committee to provide overall strategic guidance and approve the Annual Work Programs, with terms of reference, composition and powers acceptable to the Association, as further described in the Project Operations Manual.

Conditions

Source Of Fund	Name	Type
IDA	Disbursement	Disbursement

Description of Condition

No withdrawal shall be made for: payments for Eligible Expenditures made under Category (2), until and unless two Grant Agreements for Block Grant to TVET Institutions have been signed in form and substance satisfactory to the Association.

Source Of Fund	Name	Type
IDA	Disbursement	Disbursement

Description of Condition

No withdrawal shall be made for: payments for Eligible Expenditures made under Category (3), until and unless two Performance-Based Contracts for Block Grant to Higher Education Institutions have

been signed in form and substance satisfactory to the Association.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Dung-Kim Pham	Team Leader (ADM Responsible)	Senior Operations Officer	Senior Operations Officer	GEDDR
Philippe Mahele Liwoke	Procurement Specialist	Senior Procurement Specialist	Senior Procurement Specialist	GGODR
Angelo Donou	Financial Management Specialist	Financial Management Specialist	Financial Management Specialist	GGODR
Abdoulaye Gadiere	Safeguards Specialist	E T Consultant	E T Consultant	GENDR
Alexandra C. Sperling	Team Member	Legal Analyst	Legal Analyst	LEGAM
Antoine V. Lema	Safeguards Specialist	Senior Social Development Specialist	Senior Social Development Specialist	GSURR
Atou Seck	Team Member	Senior Education Specialist	Senior Education Specialist	GEDDR
Faly Diallo	Team Member	Financial Officer	Financial Officer	WFALA
Isabella Micali Drossos	Team Member	Senior Counsel	Senior Counsel	LEGAM
Jeannine Kashosi Nkakala	Team Member	Team Assistant	Team Assistant	AFCC2
Keiko Miwa	Team Member	Adviser	Adviser	GEDDR
Kirsten Majgaard	Team Member	Economist	Education Economist	GEDDR
Lalaina Noelinirina Rasoloharison	Team Member	Program Assistant	Program Assistant	GEDDR
Lanssina Traore	Team Member	Procurement Specialist	Procurement Specialist	GGODR
Maria L. Amelina	Team Member	Senior Social Development Specialist	Senior Social Development Specialist	GGODR
Michel De Marigny	Team Member	Finance Analyst		WFALA
Pegdwende Diane Porgo	Team Member	Temporary	Program Assistant	GEDDR
Sabiti Kalindula	Team Member	E T Consultant	E T Consultant	GEDDR
Tshela Rose-Claire Pakabomba	Team Member	Program Assistant	Program Assistant	GEDDR

Extended Team

Name	Title	Office Phone	Location
Ali Sanaa	Consultant - Training and Employment		Tunis
Jacques L'Ecuyer	Consultant Higher		Montreal

	Education		
Johan Verhaghe	Consultant Human Development		Kinshasa

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Congo, Democratic Republic of	Katanga	Katanga Province		**X**	
Congo, Democratic Republic of	Kasai-Occidental	Province du Kasai-Occidental		**X**	
Congo, Democratic Republic of	Eastern Province	Orientale Province		**X**	
Congo, Democratic Republic of	Equateur	Province de l'Equateur		**X**	
Congo, Democratic Republic of	Kinshasa	Kinshasa City		**X**	
Congo, Democratic Republic of	Bandundu	Bandundu Province		**X**	

I. STRATEGIC CONTEXT

A. Country Context

1. **With 80 million hectares of arable land, abundant natural resources and a promising economic growth rate, the Democratic Republic of Congo (DRC) still remains one of the poorest countries in the world.** Since 2010, DRC's economic growth has exceeded the average for Sub-Saharan Africa (SSA) by 2 percentage points. Real gross domestic product (GDP) growth has averaged more than 7% from 2010-2014 and is projected to exceed 9% in 2015. However, and despite a better performing economy and abundant natural resources, the country's wealth has not had much impact on the lives of the Congolese people. DRC still ranks 186 out of 187 on the 2014 Human Development Index (HDI), 64% of its population is poor (living below the national poverty line), and 82% of the population continues to live on less than US$1.25 per day.

2. **The promising economic growth may be challenged by recent falling commodity prices, further negatively impacting social conditions in DRC. It is important to promote growth in sectors where poor people live and work.** Even though DRC will not suffer from the falling of oil prices, being an oil importer, its economy may experience lower growth due to the sustained fall in the prices of metal of which DRC is a major exporter. Revenue can decrease with expenditure contraction, leading to recessionary pressure, which will have a negative impact on the poor. To counter this negative impact, growth in agriculture is essential as it is the sector in which the majority of the poor work. There is also the need for economic diversification into services and manufacturing sectors which require continued improvements in education quality and an increase in the availability of a more skilled labor force.

3. **DRC is undergoing a demographic transition with declining child mortality but a sustained fertility rate**. DRC has a very young population with about 67 percent being less than 24 years old, and almost 50 percent under the age of 14 years. This trend, characterized by a large and growing young population (as a portion of the total population) is expected to continue for the next 20 to 30 years. As a consequence, this overwhelmingly young population will put enormous pressure on the education system and the labor market. The 2013 World Population Report estimated that by 2050, DRC will be among the top five most populous nations in the world.

4. **Following a prolonged period of armed conflicts and political instability, DRC is transitioning from being characterized as a country in crisis to a country moving towards sustained development and economic growth.** This transition is also shifting the needs and priorities, requiring more investment in human capital. Despite the volatile political environment in recent years, the economic context is favorable to sustainable investments in the short, medium and long term. However, uncertainties remain with the coming electoral timeline which is expected to be very tense, as it coincides with the constitutional democratic transition of power.

5. **With the adoption of the Millennium Development Goals (MDGs) in September 2000, the Government of DRC had developed its Strategy for Growth and Poverty Reduction with an emphasis on education and the strengthening of human capital.** The Strategy establishes a single unifying framework for all sectoral policies of the country with one of its main pillars focusing on improving access to basic social services and on strengthening human capital. In line with the Government's commitment to education and the

strengthening of the country's human capital, a National Education Law was promulgated in 2014. The Discourse of the President on the state of the nation also gives a strong emphasis on education and training to meet the challenges of economic growth and globalization.

6. **DRC's economy has a large informal sector and has started to adopt policies and practices to promote the development of small- and medium-scale companies.** A study conducted by the National Institute of Statistics suggests that the informal sector represents between 60 to 80% of business activity, but the *Investment Climate Assessment Survey* suggests an even higher share, in the range of 90% and finds that the majority of informal enterprises are engaged in retail and commercial activities (63%) followed by industrial and manufacturing industries (15%) and services (12%). This poses critical challenges. Specifically, this trend: (i) undermines the taxation system and therefore economic growth, and (ii) because of the unpredictable nature of these informal undertakings, income is often erratic and generally not high enough to reduce poverty in a sustainable way. The formal sector has been developing modestly and needs to further accelerate progress in order to keep up with rapid labor force growth.

7. **Firms in DRC experience skills shortage in growth sectors such as Agriculture, Mining and Construction, and need skills which are obtained at the level of secondary and tertiary education.** Agriculture is the main pillar of the Congolese economy but remains largely untapped. Only 9 to 10% of the 80 million hectares of arable land is currently cultivated. With potential advances in the development of agribusiness parks by the Government, a demand for medium to high-level skills has been identified in biotechnology, soil fertilization, food protection and security but also in the value-chain process from initial production to processing, quality and commercialization. Besides agriculture, mining activities are essential with important spillover effects[1] providing good opportunities to increase economic benefits. Economic value retained through employment and local suppliers accounts for 66% of the total value created through mineral extraction.[2] The most urgent need is for semi-skilled workers, in particular plumbers, electricians, masons, welders, blacksmiths, carpenters, information technology (IT) technicians, mechanics, equipment operators, and drivers. The construction sector has expressed similar immediate needs; correspondingly, the sector has the potential to create a significant number of jobs due to upstream and downstream spillover effects.

8. **There is a low level of education and a lack of training in agriculture.** A recent study on Demand and Supply of Skills in Agriculture in Bandundu and Bas Congo provinces[3], led by the World Bank, indicated that there is a low level of education in the active agriculture labor force, not only among seasonal workers and individual farmers but also among executives and owners of agro-businesses. The lack of appropriate training and illiteracy are issues that both enterprises and farmers perceived as key obstacles to improving their performance. On the supply side, the study indicated that trainers typically mention: lack of funding, equipment, infrastructure, and educational materials, as well as low salaries as some of the key obstacles of effective training services. Around 70% of the training institutions find it difficult to recruit qualified trainers. Farmers and farmers associations expressed interest in skills related to modern agricultural production processes and processing technologies – skills which are not

[1] The World Bank. Science, Technology and Skills for Africa's Development papers. *Human capital for the Oil, Gas and Mineral Industries* (2014).
[2] The Anglo American 2012 Sustainable Development report.
[3]Peter Darvas, Marta Favara, Gabriela Munares. Demand and Supply of Skills for Agriculture in Bandundu and Bas-Congo, Democratic Republic of the Congo. World Bank

currently offered by the existing training system.

9. **DRC's shift from post-conflict reconstruction to investment-led growth, coupled with an increase in demand for skills by firms, necessitates the expansion of quality education in post-primary, with targeted investment in technical and vocational education and training (TVET).** One of the first recommendations of the World Bank Economic Memorandum was to strengthen secondary education and TVET. A study by Lutz and al. (2008) shows that secondary and technical education are critical to achieving higher growth rates for countries in the same stage of development as DRC. In particular, the FEC/AFD 2009 survey points out that technical skills in the secondary education level are the most needed on the labor market. As a rule, and for reasons of relevance and cost-efficiency, technical and vocational education and training (TVET) programs need to interact with local market dynamics and needs. In the long run, they seek to maintain a balance between labor demand and supply.

B. Sectoral and Institutional Context

DRC's education system

10. **The number of students in DRC's education system is very large and system expansion is unregulated.** The current pre-tertiary education system has a traditional 6-2-4 structure: six years of primary education, followed by two years of lower secondary and four years of senior secondary education. Over the course of the last five years, there has been considerable expansion of the system, resulting in a rapid increase in enrollment at all levels of education. Between 2008 and 2010, the number of public and private education institutions increased from 47,000 to 66,600, and the number of students registered across the system, from primary to higher education, grew from 13.6 million to 16.9 million. The number of teachers in primary and secondary education currently exceeds 600,000 (45% of whom are secondary teachers), and there are around 66,000 schools in the country (34% of which are secondary schools). Analysis of secondary education demonstrates disproportionate growth in the number of schools relative to enrollment, with the number of schools growing almost twice as fast as the number of students. This situation contributes to systemic inefficiencies and is driven by: (i) the presence of multiple actors with the authority to open schools and recruit teachers; (ii) low levels of compliance with school mapping; and (iii) the accreditation of schools that have not been budgeted for.

11. **Faith-based organizations play a substantial role in DRC's public education system**. The system includes schools managed by the State (*écoles non-conventionnées*) and schools run by faith-based groups (*écoles conventionnées*) administered primarily by Catholic, Protestant, Kimbanguist and Islamic organizations. In 2012-13, faith-based groups managed 76 % of the country's 19,600 secondary public schools and enrolled 3.3 million students. Only two percent of secondary students are currently enrolled in private schools, 41% of which are concentrated in the capital, Kinshasa. Faith-based schools are an integral part of the public system and benefit from the same advantages as the public schools, including the public financing of teacher salaries, operating costs, the renovation of school buildings, textbook distribution, etc.

12. **The sector administration is divided among three ministries responsible for primary and secondary education; technical and vocational education and training; and higher education.** In 2014, a government reshuffle established a new Ministry of TVET

(*Ministère de l'Enseignement Technique et Professionnel* - METP) and the appointment of a new minister for higher education - a portfolio which had been operating under the Minister for Primary and Secondary Education for some time. The new METP is still in the process of establishing its system. The former Ministry of Primary, Secondary and Vocational Education *(Ministère de l'Enseignement Primaire, Secondaire et Professionnel – MEPSP)* has been renamed the Ministry of Primary, Secondary and Citizenship Initiation *(Ministère de l'Enseignement Primaire, Secondaire et Initiation à la Citoyenneté - MEPS-INC)*, following the transfer of vocational training to the new ministry (METP) and the addition of a new responsibility for 'citizenship initiation'.

13. **Considerable achievements were made in primary education but many challenges remain.** Important investments have been made during the last decade, resulting in significant results. From 2007 to 2013 the gross intake rate in first grade of primary rose from 115% to 133%, meanwhile the gross enrolment rate increased from 64% to 101.4% and the completion rate has more than doubled from 29% to 64%. The gradual introduction of a fee-free policy for primary education in September 2010 contributed to this positive trend in access, especially for children from poorer households and has contributed to a reduction in gender disparities. In spite of these achievements, challenges remain. Barriers to access are driven by high costs to households, poor infrastructure, and socio-economic and cultural factors that constrain access for girls, and children from low income groups and hard to reach areas. A poor learning environment, underpinned by poor teaching skills and the limited availability of textbooks, undermine the quality of student learning. The Bank and other development partners (DPs) continue to provide support to primary education through the on-going Global Partnership for Education (GPE) funded Support to Basic Education Project and the Bank's Human Development System Strengthening as well as subjects on girls' education and education in conflict setting. A potential second GPE program is being considered in which the Bank's analytical work in early childhood development (ECD) can complement to provide a more comprehensive scope.

Secondary education

14. **Student performance in secondary education is poor.** Secondary education consists of a common stream (2 years) followed by four different streams: general, pedagogical and technical (4 years) that give access to higher education **(**university or non-university); and vocational (2 or 3 years) that leads to a professional certificate. The results of the *Examen d'Etat* (examination at the end of secondary education) (2011-13) showed poor pass rates in Math and Science, between 40%-60%. The poor state of student performance in Math and Science can be explained by the fact that teachers are poorly trained, pedagogical materials are lacking and laboratories are either in poor condition or non-existent. Textbooks for students are in very short supply and it is generally accepted that teachers do not have handbooks either. The quality of the teaching largely depends on the teacher's inventiveness and creativity.

15. **Junior and senior secondary education curricula need to be upgraded and mainstreamed.** Many curricula are outdated, incomplete, or of poor quality. School timetables vary (some curricula do not indicate the number of periods of required study) and field visits to schools (Kinshasa) observed noncompliance with official teaching time requirements or local rescheduling in line with realities on the ground. Recently developed programs such as *Informatique* (Computing) and *Education à la vie* (Life skills) have been introduced without consideration for existing learning programs and schedules, or guidance for their integration. The result is the existence of non-standardized, school-specific, timetables and confusion about

the number of periods that should be allocated to teaching each subject.

16. **Secondary TVET is inefficient and insufficiently aligned with the economy to drive economic development.** The technical and vocational streams both currently offer 39 programs in training and professional development. Analysis of the *Examen d'Etat* enrollment rates indicates that less than half of these programs enroll more than 1,500 students; some enroll fewer than 20 students nationwide; while others have zero enrollment and may not be operational. Many programs continue to utilize outdated curricula. There are on-going initiatives to support curriculum development in agriculture (Flemish Association for Development. Cooperation and Technical Assistance - VVOB) and in a range of subjects (Association for the Promotion of Education and Training Abroad/Belgian Technical Cooperation - APEFE/CTB).[4] While the new curricula for training in agriculture, developed with Belgian support, are being rolled out; others are still in the pilot phase. Initiatives to improve and update curricula are encouraging but support remains limited and has not been brought to scale.

17. **The image and attractiveness of secondary TVET has eroded over time.** TVET is perceived as a "second class" education and suffers from a negative image by youth and the general public. This is due to the irrelevance of its curricula, the poor alignment of programs with the needs of the private sector, and the poor returns to education accruing to graduates of the system. The current TVET programs are not attractive enough to mobilize and retain students. A poor learning environment, obsolete equipment, outdated pedagogical materials, and teaching that emphasizes theory rather than its practical application, exacerbate this situation. Over 80% of secondary students enroll in general or pedagogical programs, foregoing vocational and technical options entirely. In 2012-13, the share of students in secondary TVET represented 18.5% of total enrollment; 17.4% of which enrolled in the technical stream and 1.1% in the vocational stream. Both streams organize almost similar study options but students prefer the technical stream as it leads to obtaining the State Diploma that gives access to higher education.

18. **Financing of public secondary TVET is limited and relies primarily on households, the international community and self-generating revenues of the technical schools.** Public financing is inadequate, and there is no distinct budgetary allocation for secondary TVET. Since 2010, the government has ceased providing operating costs to the public schools, forcing schools to rely heavily on school fees to pay for the instructors' salaries. At present, 46% of secondary teachers are awaiting to be budgeted[5]. A number of schools have used training methods to generate revenues that very often are not in agreement with the pedagogy and the training programs schedule. A levy system exists wherein public enterprises are required to pay a training tax, corresponding to 3% of the salary of the workforce to the National Institute for Professional Preparation (*Institut National de Préparation Professionnelle* – INPP) under the Ministry of Labor. For private companies, the tax scale is 3% for companies that have 1-50 employees, 2% for companies of 51-300 employees, and 1% for companies of more than 300 employees. The administration of the training tax is opaque and inefficient.

[4] Curricula (called *référentiels*) in *Froid et climatisation*; *Maçonnerie*; *Plomberie-zinguerie*; *Menuiserie-charpenterie*; *Coupe et couture; Esthétique et coiffure; Mécanique automobile; Secrétariat-Administration* and *Electricité domestique*

[5] Total number of secondary teachers: 216,021 (of which 116,667 were budgeted and 99,354 were not budgeted). (Source: SECOPE)

Tertiary education

19. **Tertiary education offers both general higher education and higher level TVET**. While universities are responsible for general studies leading to bachelors, masters and doctoral degrees *(Licence-Maitrise-Doctorat – LMD)* in various disciplines, higher education institutes offer specialized studies aligned to specific skills. Secondary school teachers graduate from pedagogical higher institutions (HEIs) (*Instituts Supérieurs Pédagogiques – ISP)* and the Kinshasa-based National Pedagogical University (NPU) (for senior secondary); and pedagogical and technical higher institutes (*Instituts Supérieurs Pédagogiques et Techniques – ISPT*) (for technical education). Boundaries between universities and the higher education institutes are getting blurred as the latter are now organizing programs similar to those provided by the universities (3-year *graduat* and 5-year *licence*).

20. **The quality of tertiary TVET delivered is poor and is limited in terms of its relevance to the economy**. Despite an increase in demand for skilled workers, most students continue to graduate from programs that do not equip them with the relevant knowledge and skills to access employment and participate in economic growth. Programs that target the development of skills complementary to key growth sectors in the economy attract relatively few students (about 20% of total enrollment in 2013-14), with particularly low enrollment rates in agriculture (8%), construction (7%) and mining (1%). As a consequence, MESU seeks to improve the quality and relevance of its TVET, and expand vocational programs.

Overall TVET

21. **Responsibility for and oversight of DRC's overall TVET is scattered across various ministries and parastatals, undermining the development of a coherent national policy framework**. The multi-sectoral nature of TVET and lack of coordination in skills development has resulted in the development of different forms of TVET administered by different actors with vested interests. The mandates of these ministries overlap, contributing to confusion and tension, and undermining the development of coordinated policy interventions. Poor oversight and implementation is further complicated by the institutionalization of *de facto* formal, non-formal and informal TVET activities on the ground. The work of the Inter-ministerial TVET Commission established in 2008 (*Commission Interministérielle de l'Enseignement technique et de la Formation professionnelle – CIETFP)* to improve the coordination of TVET programs, has been stymied by these challenges and, so far, its impact has been limited.

The Government Education Sector Strategy and the National Education Law (2014)

22. **The recently developed Education Sector Strategy (ESS) and the National Education Law articulate an agenda for reform with a focus on more effectively aligning the supply of workers with labor market demand, and the provision of relevant knowledge and skills to Congolese youth to meet the evolving needs of DRC's economy.** For junior and senior secondary education, the reform agenda seeks to overhaul the entire curriculum to strengthen the teaching and learning of mathematics and science as well as literacy skills. Regarding secondary TVET, it focuses on the need to strengthen an effective partnership with the private sector to increase the relevance of training and its attractiveness as an education option. The objective is to boost enrollment in TVET with a goal of increasing the proportion of students enrolled from the current level of 19% to 45% by 2024. For tertiary TVET, the reform agenda seeks to develop new short-cycle courses of vocational programs (*formations professionalisantes*) that will provide graduates with skills that have practical

applications for the needs of the labor market. For both secondary and tertiary TVET, the ESS advocates the importance of effective public-private partnerships (PPPs) and the development of work-study programs with the private sector.

Donor Coordination and Financing

23. **Donor support to formal and non-formal TVET has been limited and with few actors currently present on the ground**. On the formal side, the Flemish Association for Development Cooperation and Technical Assistance (VVOB) has supported the development of curricula for agriculture with a participative approach. It has been adopted by MEPS-INC as part of the national curriculum. The project will make use of the same curricula and complement its implementation with additional pedagogical materials. The Belgian Technical Cooperation Agency (CTB) is introducing a pilot to support the government's program in developing sizeable TVET centers to serve as resource center to surrounding technical schools. In addition, it is supporting the development of a TVET strategy which has been on hold with the recent ministerial change. On the non-formal side, Japan and France are the main donors with most support going to INPP. Donor coordination is assured by the CIETFP with limited effectiveness due to lack of leadership and clear vision of TVET development.

C. Higher Level Objectives to which the project contributes

24. The project supports the reform agenda as prescribed by the National Education Law and contributes to the implementation of DRC's ESS.

25. The project will also contribute to the country's poverty reduction agenda through a focus on priority sectors for economic growth and job creation including agriculture, construction and extractive industries; and by targeting interventions to the poorest provinces. Agriculture continues to form the backbone of DRC's economy and is a major source of job creation. Studies show that growth in the agricultural sector is two to four times as effective in reducing poverty as growth in others sectors. Moreover, the project will support activities in other key growth sectors such as mining and construction with the potential for employment creation through spillover effects.

26. **The proposed project will contribute to achieving the World Bank's twin goals of ending extreme poverty and boosting shared prosperity.** Education has a significant impact on the income level of an individual and thus on poverty reduction. International evidence also demonstrates the link between the inculcation of relevant knowledge and skills through education, and increased labor productivity and higher output, with concurrent positive effects on improved livelihoods and economic growth. Countries that invest significantly in secondary and technical education achieve higher rates of economic growth compared to countries that do not (Lutz and al., 2008). Under the proposed project, the provision of quality secondary education and TVET in growth sectors, targeting a number of provinces with the highest levels of poverty and large populations, will boost the earnings of youth exponentially. A Mincerian regression, used to estimate the returns to education by level of education for both the poor and non-poor, shows high returns to education where individuals with higher levels of education can earn up to 176% more than those who have no education. This breakdown by poor and non-poor indicates that this project, which supports relevance TVET, is especially advantageous to the poor. Among the poor having completed TVET education, earnings are 125% higher than those having no education; in comparison, among the non-poor, TVET education only yields 108% higher earnings.

27. **The project is fully aligned with the Country Assistance Strategy (CAS) FY2013-FY2016 and its key principles.** The project contributes to the CAS's second strategic objective that seeks to accelerate private sector-led growth and job creation with a better educated student population. Moreover, it is aligned with the second pillar of the Poverty Reduction Strategy Paper (PRSP) which aims to diversify the economy to support accelerated growth and employment creation. In addition, the project assumes the key principles that guided the development of the CAS, notably: (i) selectiveness in the identification of development strategies and geographically targeted interventions to maximize impact; (ii) the use of government structures to implement Bank-financed projects to support state capacity-building and improve effectiveness; and (iii) the promotion of regional integration. The project design is also strongly aligned with the objectives of the Africa Regional Strategy[6] as it aims to support competitiveness and growth in DRC by strengthening core skills among secondary and tertiary students – which are necessary to developing a highly skilled workforce.

28. Furthermore, the project complements and builds on the recently completed Education Sector Project, financed by the Bank, as well as the on-going Support to Basic Education Project, financed by the GPE, for which the Bank is the supervising entity. Both projects were designed to support primary education. Building on those gains and as a continuum to the development of the education sector, the project extends support to the post-primary levels, prioritizing secondary education and TVET. In addition, it complements the Bank-financed Western Growth Poles Project in increasing employment in agriculture and the productivity of small and medium enterprises.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

29. The project is the first phase of a broader and longer-term agenda to assist the Government in improving the quality of post-basic education in general. As a first step, the project will support the government with the development of a key policy framework and focus on improving mathematics and science and build a foundation for relevant TVET.

30. The project's objectives are to: (i) improve the teaching and learning of mathematics and science in general secondary education, and (ii) enhance the relevance of TVET in priority sectors at secondary and tertiary education levels.

B. Project Beneficiaries

31. While some activities such as strategy development and the upgrading of curricula benefit the system country-wide, other specific interventions such as training, the upgrading and equipping of labs, the development of TVET programs, focus on six provinces and benefit a selected number of secondary schools and tertiary education institutes. The geographical targeting and the limited number of institutional beneficiaries are intended to support the achievement of tangible outcomes. Lessons learned through the implementation of this project will serve as the basis for the scaling up of successful initiatives to more institutions and provinces, as well as for broadening the scope for successful interventions (beyond Math, Science and the priority economic sectors). The six administrative provinces, selected based on a number of agreed upon criteria, are: Kinshasa, Bandundu, Kasai Occidental, Equateur,

[6] Africa's Future and the World Bank's Support to It, World Bank: Washington, DC

Province Orientale, and Katanga.

32. Beneficiaries of the project include:

- *Lower secondary and senior secondary scientific:* an estimated 2.1 million students will benefit from improved curricula in Science and Mathematics; an estimated 85,000 junior secondary teachers will benefit from practical and user-friendly teacher handbooks; and an estimated 13,500 senior secondary teachers of Math and Science will benefit from practical teacher handbooks and science kits as a package.
- *Secondary TVET*: an estimated 340,000 students will benefit from improved curricula; an estimated 25,000 instructors will benefit from practical teacher handbooks.
- *Tertiary TVET*: an estimated 17,931 students will benefit from newly developed vocational programs; 1,331 teaching staff will benefit from improved teaching conditions; and an estimated 1,433 students in the 6 ISPs will benefit from improved learning conditions.

C. PDO Level Results Indicators

33. The following indicators will be used to measure results for which the project is directly accountable during the six year implementation period.

PDO	Result indicators
(i) Improve the teaching and learning of mathematics and science in general secondary education	• Establishment and implementation of a student assessment system based on the new Math and Science curricula
(ii) Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels	• Percent of secondary technical students who find internships in their area of training • Percent of tertiary students who find internships in their area of training • Number of secondary TVET schools with at least 30% of the management committee members from the private sector • Number of tertiary TVET institutions with at least 30% of the management committee members from the private sector

III. PROJECT DESCRIPTION

34. As indicated above, the project represents the first phase of a broader effort to support the government in addressing supply side challenges at the post-primary level, building upon achievements made at the primary education level. It will focus on improving the quality of mathematics and science teaching and learning in secondary education; and on strengthening the relevance of secondary and tertiary TVET, complemented by system interventions to improve governance and steering of the sector.

A. Project Components

Component 1: Improve the teaching and learning of mathematics and science in general secondary education (US$101.2 million equivalent)

35. This component supports the strategic direction of improving the quality of secondary education expansion and the provision of a more suitable environment for teaching and learning of Math and Science.

Subcomponent 1.1: Development of secondary education strategic framework and strengthening of mathematics and science curricula for secondary education with improved teaching and learning conditions

36. **Development of a secondary education strategic framework.** Achievements made in primary education have resulted in a significant expansion of secondary education, positioning DRC's access above the SSA average since 2009. In 2012, the gross enrollment rate (GER) was 43.3% in DRC compared to 41.2% in SSA. But quality and internal efficiency lagged, with the rate of repeaters at 12% compared to 9% for the SSA average. The project will provide technical assistance (TA) to support the development of a strategic framework together with an implementation plan for secondary education. TA will help address the issues of quality improvement and equity in secondary education taking into consideration limited public resources, trade-offs and linkages with the labor market. In addition, the project will finance consultation workshops and activities related to the dissemination of the strategic framework and its implementation.

37. **Strengthening of Math and Science curricula.** Secondary education curricula have not kept pace with shifting socio-economic realities in DRC. Developed more than three decades ago, they have become obsolete in their content and teaching methodologies. The project will finance TA to support the upgrading and implementation of math and science curricula to integrate contemporary pedagogical methodologies. TA will also support the development of practical and user-friendly teaching materials (teachers' handbooks) which will facilitate effective teaching. In addition, science kits, together with teachers' handbooks, will be provided as a package to all math and science teachers in the estimated 4,500 secondary schools that have math and science options in DRC. The project will also support the design and delivery of a training program for inspectors and pedagogical advisors to help ensure that teachers in the schools understand the new curricula. The renewed curricula and programs will become national programs with countrywide implementation.

38. **Establishment and rehabilitation of science laboratories in selected secondary schools for a demonstration effect.** The project will finance the improvement and installation of science laboratories in selected secondary schools, including necessary civil works. Access to a modern science laboratory is critical for improving the quality of science teaching and learning in secondary education. The introduction of modern science labs nationwide is not fiscally or operationally feasible in the short to medium term. The project will (i) rehabilitate and equip approximately 36 schools with science laboratories in the six targeted provinces, and (ii) make provisions for small works and furnishing for the surrounding classrooms. Schools will be selected based on a set of core criteria, including the availability of math and science options, adequate infrastructure, and proximity to secondary teacher training institutes. These schools will serve as practice schools for math and science teachers being trained at the teacher training institutes, and will be part of both in-service and pre-service teacher training

(subcomponent 1.2).

Subcomponent 1.2: Upgrading mathematics and science curricula for in-service and pre-service training of secondary teachers at ISPs

39. **Improving the capacity of <u>future</u> Math and Science teachers.** The effective implementation of revised math and science curricula requires competent teachers in the classrooms with updated knowledge in these subjects. The revision of secondary education curricula will require a concurrent curriculum review for the secondary teacher training institutes (*Instituts Supérieurs Pédagogiques, ISP*). The institutes' *Sciences exactes* (Mathematics, Physics, Biology and Chemistry) curricula will be revisited and teacher training programs will be strengthened, including in-service training. The project will finance the upgrading of math and science curricula for the ISP, and refresher courses for professors at these institutes, based on the upgrading of general secondary education curricula. The project will also finance the development and distribution of relevant teaching materials and laboratory equipment, as well as small rehabilitation works.

40. The renewed curricula will be disseminated countrywide and benefit secondary ISPs which provide training in math and science. Moreover, in an effort to strengthen the professional development of teachers, the project will introduce a more structured pre-service training program based on a partnership between the secondary ISP of the six selected provinces and about 36 secondary schools with math and science options surrounding these institutes. The surrounding secondary schools will serve as practice schools for the placement of the institutes' students to complete their theoretical courses with practical application. As part of the partnership, students and teachers from these secondary schools could also have access to the institutes to practice in the laboratories and also to participate in the evaluation of research work undertaken by the institutes' students.

41. **Improving the capacity of <u>existing</u> math and science teachers**. Approximately 13,500 teachers are currently deployed country-wide to teach math and science in general secondary, but lack proper training. The project will support 6-week in-service training for approximately 8,600 math and science teachers in the six selected provinces. Training will take place at the secondary ISPs during summer recess. The project will support the ISP to develop an intensive in-service training program focused on familiarizing teachers with the new curricula, upgrading subject knowledge and exposing them to contemporary teaching methods. Teachers will be assessed on their knowledge and skills at the beginning and end of in-service training to evaluate the effectiveness of training programs and delivery. This activity will be rolled out from Year 3 of implementation, following the finalization of the new curricula. The project will finance international and national TA for the development of the 6-week intensive in-service training program, stipends to teachers taking the training, and costs related to the organization of the training sessions.

Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels (US$86.8 million equivalent)

42. This component uses a two-pronged approach to improve knowledge and skills in priority sectors to support accelerated economic growth; and to better align the delivery of TVET with labor market demand. The current TVET system in DRC does not provide Congolese youth with the knowledge and skills relevant to the needs of a growing and changing economy. Training programs are overly theoretical with insufficient attention paid to

workplace application. The majority of students from tertiary programs continue to graduate with poor qualifications and skills that undermine their ability to find employment. Despite a signed agreement between line ministries and the private sector to develop a partnership, the involvement of the private sector in contributing to the improvement of TVET has been limited.

43. With the two-pronged approach, this component provides support at the system level and the institutional level:

- *At the system level*: It will support the development and introduction of an enabling regulatory framework incorporating a number of reforms for the progressive development of a demand-driven TVET system.

- *At the institution level*: It will support the strengthening of relevance of TVET in a number of public secondary schools and tertiary institutions to cater more effectively to the labor market needs of the economic sectors covered by the project, using principles and approaches set in the reforms introduced at the system level.

Subcomponent 2.1: Development of a TVET Strategy and enabling framework

44. **Development of a coherent strategic policy framework for TVET education.** The project will support the development of a more coherent TVET policy framework to improve the governance of the system and more effectively align educational outcomes with labor market demand. The development of the policy framework could explore the feasibility of: (i) establishing a Skills Development Fund; and (ii) a National Center for Vocational Education and Training Development. The project will finance twinning arrangements with government entities in other countries to familiarize the Government of DRC with international best practices and lessons learned by others.

45. **Public-private partnerships (PPPs).** The project supports the revision of the current PPP agreements signed between MEPS-INC on one hand, and the MESU on the other hand, with the professional federations. Parties to the agreement need to clearly define their roles and responsibilities and formally commit to existing institutional, technical and financial arrangements. Further development and implementation of the PPP will include: (i) cooperation in organizing internships and training and private sector participation in curriculum development; (ii) financial management (FM); and (iii) monitoring of the PPP implementation. Signatories of PPPs will extend to the ministries in charge of education, participating in the project. The project will finance workshops and national TA to redraft the PPP framework, and a communication campaign to publicize the PPP.

46. **New management and operating model for secondary TVET schools.** The project will support the introduction of a new management and operating model for secondary TVET schools based on private sector participation and principles of accountability and results. The main reforms to be introduced with the model include: (i) effective PPP with participation of representatives of the private sector in school management committees to better identify and address skills shortages, to develop training programs which alternates academic study and practical work experience to participate in examinations and certification; (ii) a coherent FM framework linking needs and priorities to available resources and (iii) the use of performance based contracting. The project finances TA to propose a new management and operating model, workshops to discuss and gather stakeholders' views as well as communication campaigns to impart the new model.

47. **Certification of TVET training and quality of academic programs**. Innovative learning approaches introduced into TVET curricula and training programs require the development of a National Qualification and Certification framework as an instrument to: (i) validate professional experience; (ii) certify work-study programs and traineeships in enterprises; and (iii) include competency-based teaching methodologies and learning modules. At the tertiary level, quality assurance will be developed with the establishment of an independent Quality Assurance Agency. The project finances international TA to develop and implement the qualification framework and the establishment of the quality assurance agency, with the possibility of international experience exchanges.

Subcomponent 2.2: Enhancing the quality and relevance of secondary TVET in the priority sectors

48. This subcomponent focuses on improving the quality and relevance of TVET education at selected secondary schools, aligned to priority economic growth sectors, in the six targeted provinces. The project supports the revision of curricula and improving the supply of qualified secondary TVET instructors in the priority sectors. In addition, it provides block grants to pilot TVET delivery with increased private-sector participation and stronger Financial Management.

49. **Development and implementation of curricula and accompanying training programs.** The project supports TA and related activities for the development and implementation of TVET curricula in the three economic priority sectors covered by the project. For agriculture, the project adopts the new curricula designed by the government with VVOB[7] assistance, and supports the production of complementary pedagogical materials. For construction and extractive industries, the curricula will be developed with the competency-based approach. Design will focus on skills essential to employability, entrepreneurship and the practical workplace experience. Cross-cutting issues such as the promotion of gender equity and environmental sustainability will be integrated into curricula design.

50. **Provision of block grants in approximately 15 public secondary TVET schools.** The project supports the provision of block grants to the eligible schools to finance the implementation of school development plans (SDPs). SDPs are intended to encourage schools to be more responsive to the local needs of their economic environment and to promote more effective and transparent use of resources. An output-based model for financing and mutual accountability for results between the ministry governing TVET and the schools will be promoted.

51. The project finances TA to assist the selection committee of SDPs in the review and selection process. The project also finances TA to assist the schools with approved SDP in developing the full-fledged proposal. During the course of SDP implementation, the project will finance TA to monitoring progress. In addition, the Project will finance annual technical audits.

[7] VVOB supported the design of respectively 6 and 5 curricula for technical and vocational schools in agriculture; CTB financed the development of 10 *référentiels* in other sectors.

Subcomponent 2.3: Enhancing the quality and relevance of tertiary TVET in the priority sectors

52. The project supports: (i) the upgrading of skills of secondary TVET instructors, (ii) the replacement of current undergraduate programs with three-year programs, aligned to the LMD system; and (iii) the introduction of short institution-specific programs designed for particular competencies. The beneficiary institutions will develop these programs in line with a Performance Based Contract (PBC) entered into with the MESU.

53. **Upgrading knowledge and skills of secondary TVET instructors with the strengthening of two ISPTs.** The institutes for technical teacher training (*Instituts Supérieurs Pédagogiques et Techniques – ISPT*) training programs require upgrading to align the training of secondary TVET instructors with developments in secondary TVET and reforms in the development of vocational programs by the institutions of higher education. Based on a work plan submitted by ISPT Kinshasa and Likasi (in the Katanga province), the project will support the upgrading of the current curricula and training programs to align them with developments at the secondary and tertiary levels and refresher courses for the professors. It will also support the provision of equipment and rehabilitation works to shelter the equipment. A work plan for the ISPTs will be developed. PBCs will not govern the implementation of the two ISPTs' work plans.

54. **Replacement of the undergraduate programs in the priority sectors**. The project will support MESU in its efforts to reform the higher education programs in accordance with the LMD system. The new undergraduate programs will be 3-year professional degrees. Their objectives will be defined by competencies in collaboration with practicing professionals. Each program will be structured in terms of credited modules and courses according to the LMD system prescriptions. They will incorporate credited work-place training and a significant portion of the courses will be given by active professionals. This will ensure that graduates from these professional degrees will be well prepared to enter the labor market. Before being offered, these new programs will be evaluated by an independent agency and authorized by MESU. Thereafter, they will be generalized throughout the country.

55. **Introduction of short institution-specific programs.** The recently adopted National Education Law (2014) allows higher institutions to develop their own programs in response to specific needs perceived by the institutions. These institution-specific programs will be at the undergraduate level and their duration will not exceed three years. They do not need the approval of MESU. They will be professional programs designed to meet specific needs of the labor market and developed in close collaboration with the private sector. Curricula will integrate practical work experience. Professionals from the private sector will teach part of the academic courses. Also, the programs will be developed within the LMD system so that students could shift to the regular programs if necessary. Examples of such programs are programs to train people in the prevention of accidents in the workplace, and programs to prevent and reduce damages done by environmental disasters in the extractive industries.

56. PBCs will be used to finance the development of these new programs and at the same time to correct some of the weaknesses of undergraduate education including low internal efficiency, poor utilisation of ICT and lack of contacts with employers. PBCs are results-oriented and allocations are tied to the achievement of specific, measurable targets and indicators. PBCs are signed between MESU and the institutions. Both signatories have contractual obligations. MESU will make allocations as stated in the contract and the

institutions need to achieve their results as stated in the contract. Beneficiary HEIs, performing under PBC, were selected based on criteria (see Annex 2); some of which were applied upstream (staff availability, management capacity), others are based on commitments by means of formal letters addressed to the MESU.

57. The project finances the PBC signed between MESU and the selected HEIs as well as annual reviews and assessments of PBC implementation, leading to disbursement decisions. Annual allocations to finance the PBC will require the Bank's prior approval. In addition, the project supports the establishment of an independent Quality Assurance Agency (see Subcomponent 2.1); and provides TA to support the development and implementation of a framework with standards and principles of the LMD system.

Component 3. Project Coordination, Monitoring and Evaluation (US$12.0 million equivalent)

58. The project supports activities aiming to ensure effective project execution and coordination, and monitoring and evaluation of project outcomes. Consultancy services will be provided to expand knowledge on technically focused education and training subject matters, and evaluation work. Technical knowledge sought will also endeavor to strengthen the relevant technical departments within MEPS-INC, METP and MESU. The project will support additional implementation-related activities including, but not limited to, communication strategies and campaigns, data collection and monitoring, tracer surveys, audits, final evaluation, and safeguards monitoring.

B. Project Cost and Financing

59. The instrument for the proposed project is a six-year Investment Project Financing (IPF**)**, premised on an IDA credit of US$130 million equivalent and an IDA grant of US$70 million equivalent. A Project Preparation Advance (PPA) in the amount of US$2 million has been approved. The project is expected to be effective on October 31, 2015 with a closing date on December 31, 2021. The selected instrument is appropriate given the context of weak governance in the education sector, and limited implementation capacity within the three education ministries, including in financial management and procurement. This project is the first Bank investment provided to the METP and MESU. In addition, there are large targeted interventions that need to be tracked (renewal of curriculum, laboratory equipment, etc.) to measure project progress and a transaction-based disbursement modality is deemed appropriate. The project includes a subcomponent supporting tertiary institutions for which disbursements are made against performance-based contracting. This approach is selected as a means to accompany and support the institutions in adopting stronger links with the private sector and in assuming accountability for results in their operations.

Project Cost and Financing

60. Total project costs are presented in the following table, in USD million.

Project component	Cost	IDA Credit	IDA Grant	% financing
Component 1: Improve the teaching and learning of mathematics and science in general secondary education	101.2	65.8	35.4	100%
Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels	86.8	56.4	30.4	100%
Component 3: Project coordination, monitoring and evaluation	12.0	7.8	4.2	100%
TOTAL	200.0	130.0	70.0	100%

C. Lessons Learned and Reflected in the Project Design

61. **The design of the project and selection of priority areas were guided by analytical work.** The Bank's Country Economic Memorandum 2013 for DRC and its related background papers, especially "Resilience of an African Giant" and "Skills and Employment in DRC" highlighted the following: (i) the low contribution of human capital to productivity due to a weak education system in DRC; (ii) the importance of secondary education and TVET for the stage of development in DRC, and (iii) the critical role of infrastructure, agriculture and extractive industries in DRC economy and labor market. This has shaped the focus of the project, which informed the selection of priority areas.

62. **The supply-side constraints in agriculture TVET are informed by the ongoing work in agriculture.** The Bank's work supporting the government's agro-industrial parks program and analysis of demand and supply of skills in agriculture have also informed the project design. The lack of appropriate training and illiteracy are key issues in the active agriculture labor force, not only among seasonal workers and individual farmers but also among executives and owners of agro-businesses. The lack of funding, equipment, infrastructure and educational materials are often cited as key obstacles for effective training services, and around 70% of the training institutions find it difficult to recruit qualified trainers. The project includes activities to address these supply-side constraints – such as strengthening of the education level (math and science in secondary education), providing an enabling environment for technical teaching and learning (renewed curricula developed with the private sector, supporting educational materials and equipment), and strengthening pre-service teacher training at ISPT to produce qualified technical instructors.

63. **Project design in a post-conflict and/or fragile state should remain focused**. The recently completed Education Sector Project and the on-going Support to Basic Education Project in DRC emphasized the guiding principle of focus and selectivity in project design. The focus of this project has been sharpened to facilitate project implementation and the achievement of outcomes. The scope has been narrowed from the original government request of three disciplines to two and from four economic sectors to three. Geographic coverage has also been limited to six provinces. The project is designed as a first step to a longer-term reform process.

64. **Implementing reforms using the government's structures and systems with appropriate support.** Lessons from other education projects indicate that mainstreaming project implementation arrangements in government structures strengthens the capacity of executing ministries, builds stronger ownership of the reforms and is more likely to contribute to sustainable outcomes. This project balances this approach with the reality and lessons from the recent projects in DRC. Given the weak capacity and volatile environment, it was decided to combine government execution with targeted TA. One of the key requirements of the TA is an effective transfer of knowledge to the executing ministries.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

65. Three ministries are ultimately accountable for meeting the objectives of the project: MEPS-INC, METP and MESU.

66. **Strategic Direction**. A Steering Committee (SC) will be established. It is chaired by the Minister of EPS-INC, with the Ministers of ESU and ETP as Co-Chairs. The SC is further comprised of: the Secretary Generals (SGs) of MEPS-INC and MESU; representatives of the Ministry of Finance, the relevant Directorates and representatives of the private sector targeted by the project. The SC has the following responsibilities, to: (i) provide strategic direction to the project; (ii) approve the project annual work plans; and (iii) evaluate project progress. It will meet twice a year. The existing Technical Assistance Unit (*Cellule d'Assistance Technique* - CAT) within the MEPS-INC will assume the role of Secretariat. The SC will be established by a government decree.

67. **Overall coordination.** The CAT will be responsible for overall project coordination, evaluation, and reporting. The CAT was established with donor support to monitor the implementation of the *Interim Education Plan* and the harmonization/coordination of donor interventions; as a result, it has developed significant expertise in technical education issues. At present, it has capacities in education planning and economics, sector budgeting, training system development, monitoring and evaluation. The project will provide technical assistance to the CAT to further strengthen its knowledge in topics related to the development of education, including knowledge of the economics of education and labor market dynamics.

68. **Project implementation** will fall under the authority of the Secretary Generals of each education ministry. Technical Support Teams (TSTs) will be established to assist the SGs in the day-to-day operation and will be manned with staff with strong capacities in leadership, project programming, planning, synchronization, and monitoring of activities. Procurement and financial management qualification will also be included to be coherent with the capacities of the SGs' administration. The technical Directorates under the SGs will implement project activities that fall under their technical jurisdiction and will be strengthened with technical knowledge.

69. The HEIs, operating under PBC, will execute their own PBC. These institutions are autonomous. Each one will set up a PBC committee placed under the Rector/General Director to coordinate the part of the PBC that falls under its faculties or departments. The PBC committee will comprise: (i) a coordinator, (ii) a procurement focal point, (iii) a financial management specialist, and (iv) a monitoring and evaluation specialist. Once the PBC is

signed, after the World Bank's no-objection, each HEI will be in charge of procurement and financial management of its PBC.

70. For HEIs, not operating under PBC, the General Director will be responsible for the implementation of the institution's work plan. Procurement and financial activities will be assembled and centered at the SG level. This group of HEIs include the 6 ISPs and the 2 ISPTs.

71. **A recent government reshuffle (2014) has resulted in the establishment of a new Ministry for TVET (METP).** This Ministry is still in the process of establishing its administration and will adopt the same project implementation structure as MEPS-INC and MESU. For the time being, procurement and financial management responsibilities will rely on the set-up under the SG-MEPS-INC.

72. **The project will introduce specific grievance redress and accountability mechanism**. The mechanism will build on the grievance redress platform piloted in the on-going Support to Basic Education Project (PROSEB) and institutionalized by the creation of the national ICT enabled Education Information Management System (SIGE). The ICT platform will permit different actors in the secondary and vocational education system - parents, teachers, students, potential employers, etc. – to use the established accountability channels to report various transgressions in the use of project resources (e.g. lab or school rehabilitation) or misuse of power in the allocation of opportunities provided by the project (e.g. inclusion into teacher training programs, etc.). The model, piloted under PROSEB, can be adapted to the specific needs of the project and become part of the national data and accountability platform in the educational sector adding to the overall ecology of the ICT enhanced transparency in the education sector of DRC.

B. Results Monitoring and Evaluation (M&E)

73. **A robust M&E system will be developed to track progress and the achievement of outcomes.** The CAT, located within the MEPS-INC, will be responsible for the overall M&E of the project. The CAT has accrued significant experience in M&E through the implementation of on-going Bank and GPE-financed projects. Most of the data for monitoring project results will be drawn from regular reports compiled by the three ministries. The CAT will be responsible for ensuring adequate information flows between the ministries. PBC mechanisms in tertiary institutions are part of the M&E process, as allocations are tied to the achievement of specific, measurable performance standards and indicators. A comprehensive set of indicators has been developed to track progress towards the achievement of the PDO and intermediate level targets. Drawing on lessons learned from previously executed projects, a limited number of realistic indicators will be used to support the monitoring and implementation of this project.

74. **Specific M&E activities will complement and complete the flow of regular reports.** Routine reporting will be complemented by additional M&E exercises to improve the quality, type and nature of information gathering. These will include (i) the monitoring of the internship status for graduates from secondary and tertiary programs; and (ii) the assessment of ISP teachers' knowledge and pedagogical skills in the six targeted ISPs at the start of the intensive training program and the end of the program. Specific tools will be developed to effectively measure these results. In addition, two qualitative beneficiary surveys will be deployed to measure changes in the satisfaction with educational outcomes of employers (providing internship), youth, parents and teachers (baseline survey during Year 1 of implementation, a

midline beneficiary survey and a second one at project closure).

C. Sustainability

75. The following factors will contribute to the sustainability of the program:

- ***The project responds to Government priorities*.** It supports the Government reform agenda as encompassed by the ESS, which puts emphasis on strengthening human capital with the provision of skills and knowledge to youth for more effective participation in a globalized economy. Most important is the Government's commitment to support the education sector which has been translated in significant budget increase. Resources allocated to primary and secondary education have increased in absolute terms. During 2009-2014 the executed budget has tripled from US$142 million to US$445 million, and per student expenditure has doubled from US$12.4 to US$24.1.

- ***The reforms and structural changes encompassed by the project are owned by the Government***. Throughout project preparation and appraisal, there has been strong ownership which is essential in achieving results and sustaining change. In addition, the project components have integrated measures to trigger systemic and durable change; which include: (i) the use of PPPs to strengthen the responsiveness, accountability and relevance of TVET programs, and their financing; (ii) the incorporation of PBCs and results-oriented management model to build accountability and improve governance mechanisms; (iii) the implementation of revised and harmonized curricula at the levels of the secondary schools and the teacher training institutes to strengthen system-wide coherence; and (iv) the development of more efficient training programs for future teachers that integrate practical training as an essential part of secondary teacher development.

- As indicated in the "lessons learned" above, ***the use of government structures for implementation, complemented with effective TA, will build capacity and contribute to sustain the project outcomes.*** This approach will enable active and direct execution of the project by the technical Directorates of the three ministers, strengthen their experience and sustain the efforts.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

Risk Categories	Rating (H, S, M or L)
1.Political and Governance	H
2.Macroeconomic	M
3.Sector strategies and policies	S
4.Technical design of project or program	S
5.Institutional capacity for implementation and sustainability	H
6.Fiduciary	H
7.Environment and Social	M
8.Stakeholders	S
Overall	H

76. The overall risk rating is *High*. The rating is primarily informed by political and governance factors as well as a weak institutional environment for public administration.

77. ***Political risk***. Elections are due to be held in 2016 and may bring periods of instability and the reshuffling of government structures and responsibilities, with potentially negative consequences for the administration of the education system. *Mitigation measures include*: The partnership approach used during project preparation has garnered buy-in and alignment of stakeholders from the administration and also from other groups of critical stakeholders, notably the institutionally anchored stakeholders at the school levels, the private sector representatives, and faith-based networks. Moreover, project implementation arrangements rely heavily on the administrations of ministries that are relatively immune to ministerial reshuffling.

78. ***Weak governance across the system of public administration enables unethical practices.*** Oversight and implementation capacity weakness is evident across the entire edifice of education administration. Decision-making tends to be centralized, with low levels of participation and poor communication with devolved entities. Poor working conditions and relatively poor compensation for civil servants do not lend themselves to promoting a culture of accountability for results and create conditions amenable to corruption. *Mitigation measures include*: MEPS-INC, via the Ministry of Finance, is in the process of improving the release of budget allocations dedicated to reward good performance. This is an ongoing process that should be encouraged and followed by the other two ministries.

79. ***Weak institutional capacity for implementation***. The capacity of government structures for project management is generally weak with regard to planning and programming, procurement and financial management. Implementation arrangements are complex and span three ministries. *Mitigation measures include*: The project will provide TA to improve efficiency, quality of performance and sector knowledge; and ensure the effective transfer of competence to relevant technical Directorates and ministerial units. Project implementation arrangements incorporate the convening of systematic meetings and reporting to stimulate collaborative work across the three ministries in charge of education and relevant ministerial units.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

80. Quality and relevance of education and student learning outcomes are generally weak in DRC, as evidenced by assessment data, low pass rates on exams, and low student flow efficiency. Only about half of youth are literate after six years of schooling. At a given level of schooling, students are about two years behind their counterparts in Tanzania in terms of what they have learned. The literature linking cognitive skills with a country's economic growth is well-established (Hanushek and Wossman, 2007). Based on assumptions about the association between learning gains and lifetime earnings, the economic analysis of Component 1 finds that the economic benefit of a strengthened curriculum in general secondary education could be very considerable and far exceed the cost, particularly given the high number of students enrolled at that level who would benefit from the investment.

81. The economic analysis of Component 2 focuses on the two main institution-level activities: block grants financing comprehensive SDPs for 15 public secondary TVET schools and the development of new vocational programs in tertiary-level institutions. The investments in secondary TVET schools are comprehensive and have the potential to substantially improve the quality and relevance of training and the operating efficiency of the schools. The benefits were found to outweigh the costs under conservative assumptions. The economic analysis of the tertiary level institutions models a situation of 25,000 youth who benefit from the new academic programs as a result of the project, leading to an increase in lifetime earnings compared with traditional programs. Further, the system-level reforms will reinforce the impact of the institution-specific investments. For both components, there may also be substantial non-economic benefits through known social, health and child development outcomes of education.

82. More details on the economic analysis, the rationale for investment, and the fiscal impact of the project are included in the Economic and Financial Analysis in Annex 7.

83. *World Bank Value Added.* The World Bank has been engaged in the education sector in DRC for a significant period of time, working closely with the development partners and the government. With the objective to supply quality and relevance of general secondary education and technical education, project interventions will be associated with areas that go beyond education. With its organizational structure, the World Bank is positioned to provide world-class and integrated solutions to support the government in achieving the project development objective. The preparation of the project has already benefited from much of the World Bank's analytical work. During implementation, in addition to the World Bank's global practice in education, knowledge of global practices in agriculture, energy and extractive industries will be drawn to support the government in the development of curricula that can respond to the labor market needs in the related sectors. Besides, the World Bank's cross-cutting practices in jobs, fragility and conflict as well as public private partnership will promote a holistic coverage to the project development objective. The World Bank is also positioned to provide evidence-based solutions to the development of policies in general secondary education and technical education. It will facilitate twinning arrangements with other countries having succeeded in similar endeavors so that the government can learn from the experiences.

B. Technical

84. The project's focus on secondary education and TVET is appropriate given DRC's

development path that is shifting from a post-conflict reconstruction to an investment-led growth stage**.** Global evidence has shown that secondary and technical education are critical to achieving higher economic growth rates for countries in the same stage of development as DRC. A particular focus is given to mathematics and science given the relation between student performance in these disciplines and stronger capacity for further learning and skills acquisition. In addition, in order to foster sustainability and achieve an all-inclusive impact on learning, the project adopts a "whole school" concept. Mathematics and science curricula will be renewed, using contemporary pedagogical methods and complemented with modern science classrooms equipped with laboratories and with a greater number of more qualified teachers. Furthermore, using a performance-based approach in financing TVET at the secondary and tertiary levels in other settings has shown to lead to stronger governance and a more relevant and efficient provision system.

85. The Bank-financed technical assistance work on higher education development was used to shape the design of TVET delivery at the tertiary level, using PBC. A working paper on the structure and challenges in secondary and tertiary education also contributed to project design.

C. Financial Management

86. A Financial Management (FM) Assessment at the level of the SG/MEPS-INC, SG/MESU and the selected higher institutions was carried out according to the Bank's OP/BP 10.00. Details are provided in Annex 4.

87. *Financial Management Assessment at the level of the Secretary General of MEPS-INC.* The SG/MEPS-INC is currently managing the Support to Basic Education Project (P131120), financed under the GPE, for which the Bank is the supervising entity. It will be in charge of managing the first Designated Account (DA). The assessment of its financial management team showed some strengths including qualified personnel and an adequate financial and accounting system. To mitigate the fiduciary risk to the extent possible, the following actions have been agreed: (i) the recruitment of an additional Accountant to reinforce the FM team in managing the additional workload which will be generated by the project, (ii) the updating of the current manual of procedures in line with the new project specificities, (iii) the revisiting of the parameters of the financial management software (TOM2PRO) to take into consideration the specificity of the project, and (iv) the recruitment of an independent external auditor based on acceptable Term of References (TORs).

88. *Financial Assessment at the level of the Secretary General of MESU and the selected higher institutions.* The SG/MESU will be in charge of managing the second DA. The FM assessment conducted revealed weaknesses in personnel and system. In order to mitigate the fiduciary risks and enable the MESU to carry out FM activities, the following actions are required: (i) build a Financial Management team within the MESU as prefiguration of the future Direction of resource management *(Direction des Affaires Financières - DAF)*, staffed with a qualified and experienced Financial Manager, an Accountant, and an Internal Auditor; (ii) strengthen FM at each institution's level with an Accountant, placed under the Rector/General Director, under terms of reference acceptable to the Bank to facilitate the management of agreed performance based contracts; (iii) design of an appropriate internal control system; (iv) adopt a manual of financial and accounting procedures in form and substance acceptable to the Bank; (v) purchase a multi-project and multi-site financial and accounting management software which will have a working interface at both the MEPS-INC and MESU level as well

as at the related higher institutions level in a manner satisfactory to the Bank; (vi) establish a credible and effective Internal Audit function; (vii) recruit an independent external auditor in compliance with acceptable terms of reference to the Bank; and (viii) roll out a training plan which includes, inter-alia, training on the Bank disbursement procedures, and training on the Bank financial reporting arrangements.

89. The overall FM risk is considered **substantial**. Based on this overall residual FM risk, the project will be supervised at least twice a year to ensure that project FM arrangements still operate well and funds are used for the intended purposes and in an efficient way. In addition, the project accounts will be audited annually and reports submitted to the Bank not later than six months after the end of each fiscal year. Furthermore, the Bank will provide specific support in the upcoming process of the migration of FM units established within both MEPS-INC and MESU to the DAF.

D. Procurement

90. Project procurement activities fall under the MEPS-INC, the METP and the MESU**.** They will be carried at two levels: (i) at the level of the three Ministries (MEPS-INC, METP and MESU) and (ii) at the level of the Institutions governed by PBC. At the level of the three Ministries, procurement activities will be carried out by the procurement unit *(Cellule de Gestion des Projets et des Marchés Publics – CGPMP)* within the ministries that report to the General Secretary of the said Ministry. In anticipation of the development of a full administration under the METP, the administrative part of procurement activities will be entrusted to the CGPMP of MEPS-INC; however, the technical part and procurement decisions will remain with the METP. At the level of the institutions governed by PBC, the procurement activities will be handled by their respective procurement units. Most of them need to be formalized according to the procurement law. For the institutions not governed by PBC, procurement will be grouped and handled by the CGPMP of MESU.

91. Given: (i) the country context and associated risk; (ii) the low procurement capacity of the two Ministries through their CGPMP; and (iii) the very weak procurement capacity of the institutions governed by PBC due to the fact that most of them do not have a formal established procurement unit according to the procurement law, the procurement risk is rated **high**. Details are provided in Annex 4.

E. Social (including Safeguards)

92. The short, medium and long-term socio-economic impacts of the proposed project is expected to be largely beneficial. Immediate benefits will include: improved curricula, capacity building, and improved education facilities. Medium and long-term benefits will include, but not limited to: (i) increased access to improved education services; (ii) enhanced students competencies in Math and Science; (iii) increased earning potential of youth in poor provinces; and; (iv) better alignment between education and labor market.

93. Key beneficiaries include: participants in the education sector in the six selected provinces, lower secondary and university students, teachers and professors, school administrators (directors, pedagogical advisors, inspectors and other officials), parents, communities and indigenous people. Lower secondary and university students will benefit from improved curricula. Teachers and school administrators will benefit from capacity building. Parents and communities will benefit from better quality of post-basic education for

their children. Indigenous people will have enhanced opportunities for post-basic education. Poverty and equity concerns informed the selection of the provinces with high poverty incidence.

94. Involuntary Resettlement **(**OP 4.12) was triggered as Component 1.2 may induce land acquisition through rehabilitation of selected school infrastructure, renovation or establishing of new laboratories in existing space, which may lead to involuntary resettlement, or restrictions of access to resources or livelihoods; as the ownership of existing space and the potential presence of squatters have yet to be confirmed. To mitigate potential adverse impacts, a Resettlement Policy Framework (RPF) has been prepared and disclosed, in-country and at the Infoshop. Indigenous People (OP 4.10), was triggered as four of the project provinces, but Kinshasa, are home to indigenous people. To mitigate potential adverse impacts on indigenous people, an Indigenous Peoples Planning Framework (IPPF) has been prepared and disclosed, in country and at Info-shop. The social safeguards impacts identified are not expected to have long term or cumulative effects.

F. Environment and Safeguard Policies

95. The project was classified as EA Category "B" as the potential adverse impacts associated with projected activities are anticipated to be minor, site specific and limited to an acceptable level. Taking into account the nature and scope of activities, three environmental safeguard policies were triggered in addition to the two social policies mentioned above: OP/BP4.01 (Environmental Assessment), OP/PB4.04 (Natural Habitats) and OP/BP4.11 (Physical Cultural Resources). However, only one safeguard instrument will need to be prepared: an Environmental and Social Management Framework (ESMF). To mitigate potential issues related to Physical Cultural Resources, a specific chapter is included in the ESMF. Nevertheless, the project will not finance activities that affect or involve physical cultural resources.

96. Following consultation in the formulation of the ESMF and its finalization, the framework has been disclosed in-country and made available through the Info-shop on April 23, 2015. The ESMF outlines an environmental and social screening process, including institutional responsibilities for screening, review and clearance, and implementation of mitigation and monitoring measures, for future investments. The Financing Agreement requires the government to prepare and submit to the Bank for prior approval, all ESIAs and ESMPs in accordance with the ESMF. Details are provided in Annex 5.

97. The Climate and Disaster Risk Screening was done and filed on March 24, 2015 after the Concept review meeting because the screening tool was not yet available at the time of concept review.

G. Other Safeguards Policies Triggered (N/A)

H. World Bank Grievance Redress

98. Communities and individuals who believe that they are adversely affected by specific country policies supported as prior actions or tranche release conditions under a World Bank Development Policy Operation may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the WB's Grievance Redress

Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org"

Annex 1: Results Framework and Monitoring
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

Project Development Objectives	
PDO Statement	
The objectives of the project are to: (i) improve the teaching and learning of mathematics and science in general secondary education, and (ii) enhance relevance of technical and vocational education and training (TVET) in priority sectors at secondary and tertiary education levels.	
These results are at	Project Level

Project Development Objective Indicators

		Cumulative Target Values						
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
Establishment and implementation of a student assessment system based on the new mathematics and science curricula (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	Yes
Percent of secondary technical students who find internship	0.00	0.00	0.00	0.00	0.00	20.00	25.00	25.00

in their area of training (Percentage)								
Percent of tertiary students who find internship in their area of training (Percentage)	0.00	0.00	0.00	0.00	0.00	30.00	35.00	35.00
Number of secondary TVET schools with at least 30 percent of members of the management committee from the private sector (Number)	0.00	0.00	0.00	6.00	15.00	15.00	15.00	15.00
Number of tertiary TVET institutions (under performance-based contracts - PBCs) with at least 30 percent of members of the management committee from the private	0.00	0.00	0.00	2.00	5.00	6.00	6.00	6.00

sector (Number)								

Intermediate Results Indicators

		Cumulative Target Values						
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
Strategic framework and implementation plan for secondary education validated by the Government (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	Yes
New curricula for Math and Science for secondary general education developed and implemented (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Number of handbooks distributed nation-wide to secondary teachers teaching math and science	0.00	0.00	0.00	210500.00	210500.00	210500.00	210500.00	210500.00

(Number)								
Number of secondary schools having an equipped science laboratory (Number)	0.00	0.00	0.00	26.00	36.00	36.00	36.00	36.00
Renewed curricula for teaching of Math and Science developed and implemented by ISP (national program under the responsibility of MESU) (Yes/No)	No	No	No	Yes	Yes	Yes	No	Yes
Number of teachers trained with the summer intensive in-service training program in the 6 project provinces (Number)	0.00			2150.00	4300.00	6450.00	8600.00	8600.00
Public-private partnership framework	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

revised and adopted by the three ministries (Yes/No)								
Establishment of an independent Quality Assurance unit (Yes/No)	No	No	No	No	Yes	Yes	Yes	Yes
New curriculum in Agriculture, Construction and Extractive Industries ready for implementation (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	Yes
Number of contracts related to the approved school development plans signed (Number)	0.00		7.00	15.00	15.00	15.00	15.00	15.00
Curriculum for training of secondary TVET instructors renewed and implemented in the 2 ISPT(national	No	No	No	Yes	Yes	Yes	Yes	Yes

program under the responsibility of MESU) (Yes/No)								
Number of PBC having reached 70 percent of the agreed results (Number)			3.00	5.00	6.00	6.00	6.00	
Number of replaced undergraduate programs formulated in conformity with LMD system and approved by MESU (Number)	0.00		10.00	15.00	20.00	25.00	25.00	25.00
Number of new short cycle institution-specific programs (less than 3 years, not requiring MESU approval) (Number)	0.00	0.00	0.00	0.00	7.00	10.00	14.00	14.00
Tracer study conducted (Yes/No)	No	No	Yes				Yes	Yes
Number of	2100000.0	2163000.00	2227890.00	2301410.00	2381960.00	2465328.00	2551615.00	2551615.00

direct beneficiaries (students benefitting from the renewed Math and Sciences curricula) (Number)	0							
Of which % female (Percentage - Sub-Type: Supplemental)	62.00	62.00	62.00	63.00	63.00	63.00	64.00	64.00
An ICT platform to allow parents and teachers to undertake monitoring of school rehabilitation and proper use of science laboratories in the project schools (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes

Indicator Description				
Project Development Objective Indicators				
Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Establishment and implementation of a students' assessment system based on the new mathematics and science curricula	Development of students' learning assessment	yearly	project report	SG MEPS - INC
Percent of secondary technical students who find internship in their area of training	Percentage of students who find internship at the end of the training program	yearly	project report	SG METP
Percent of tertiary students who find internship in their area of training	Percentage of students who find internship at the end of a training program	Annual	MESU statistics, project progress report	SG - MESU
Number of secondary TVET schools with at least 30% of members of the management committee from the private sector	Share of members of the private sector in the schools management committee	Annual	Project report	SG - METP.
Number of tertiary TVET institutions with at least 30% of members of the management committee from the private sector	Share of members of the private sector in the institution management committee	Annual.	Project report	SG - MESU.

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data

				Collection
Strategic framework and implementation plan for secondary education validated by the Government	Development of the strategic framework with an action plan	Semi-annual	Project Reporting	SG MEPS-INC TSU/ CAT
New curricula for Math and Science for secondary general education developed and implemented	Math and Science curricula reviewed and upgraded	Semi-annual	Project reporting	SG MEPS-INC TSU/ CAT
Number of handbooks distributed nation-wide to secondary teachers teaching math and science	There are 85,000 junior secondary teachers. Each teacher will receive 2 handbooks, one in math and on in science. (170,000 handbooks). There are 25,000 senior secondary teachers teaching M & S. Each teacher will receive 3 handbooks (75,000 handbooks)	Semi-annual	Project reporting	SG MEPS-INC TSU/ CAT
Number of secondary schools having an equipped science laboratory	Science laboratories renovated or installed in the secondary schools	Semi-annual	Project reporting	SG MEPS-INC TSU/ CAT
Renewed curricula for teaching of mathematics and science developed and implemented by ISP (national program under the responsibility of MESU)	Mathematics and science curricula used to train general secondary teachers in ISP are reviewed, upgraded and implemented	Semi-annual	Project reporting	SG MESU TSU/ CAT
Number of teachers trained with the summer intensive in-service training program in the 6 project provinces	Teachers teaching math and science in the beneficiary secondary schools surrounding the 6 targeted ISP have taken the intensive in-service training program organized during the summer.	Semi-annual	Project reporting	SG MESU TSU/ CAT
Public-private partnership	The present framework has been updated	Semi-annual	Project reporting	SG METF/SG MEPS-INC

framework revised and adopted by the three ministries	and signed by MEPS-INC, METP and MESU.			TSU/ CAT
Establishment of an independent Quality Assurance unit	An independent Quality Assurance Unit is in place.	Semi-annual	Project reporting	SG MESU TSU/ CAT
New curriculum in Agriculture, Construction and Extractive Industries ready for implementation	Agriculture curricula developed by VVOB are complemented with pedagogical materials. Curricula for construction and extractive industries are renewed.	Semi-annual	Project reporting	SG MEPS-INC TSU/ CAT
Number of contracts related to the approved school development plans signed	The SDP submitted by the beneficiary ETP schools have been assessed and approved through a signed contract	Semi-annual	Project reporting	SG MEPS-INC TSU/SG METF CAT
Curriculum for training of secondary TVET instructors renewed and implemented in the 2 ISPT(national program under the responsibility of MESU)	Curricula in the 3 priority sectors used to train technical secondary teachers in ISPT are reviewed, upgraded and implemented	Semi-annual	Project reporting	SG MESU TSU/ CAT
Number of PBC having reached 70% of the agreed results	Number of PBC under execution that have reached 70% of the agreed results	Annual.	Project reporting.	SG MESU TSU/ CAT
Number of replaced undergraduate programs formulated in conformity with LMD system and approved by MESU	Number of programs in the 3 priority sectors that are replaced in conformity with LMD system.	Semi-annual	Project reporting	SG MESU TSU/ CAT
Number of new short cycle institution-specific programs (less than 3 years, not requiring MESU approval)	Number of short cycle that are developed by each beneficiary institution, responding to specific demands in the labor market.	Semi-annual	Project reporting	SG MESU TSU/ CAT

Tracer study conducted	(i) ISP and ISPT graduates being recruited as secondary school teachers, students graduating, (ii) students graduating from TVET secondary schools supported by the project, (iii) students graduating from undergraduate professional programs supported by the project, and (iv) students graduating from the short institution-specific programs supported by the project	Semi-annual	Project reporting	CAT
Number of direct beneficiaries (students benefitting from the renewed Math and Sciences curricula)	1.8 million students in lower secondary and 300,000 students in senior secondary with scientific options.	Annual	statistics	SG MEPS-INC
Of which % female	Number of females among the students benefitting from the renewed math and sciences curricula	Annual	statistics	No description provided.
An ICT platform to allow parents and teachers to undertake monitoring of school rehabilitation and proper use of science laboratories in the project schools	A platform for social participation and accountability between the beneficiaries and the administration is operational	Annual	project report	SG MEPS-INC, METP, MESU

Annex 2: Detailed Project Description
Country: Democratic Republic of Congo
Quality and Relevance of Secondary and Tertiary Education Project (P149233)

1. The proposed project will support post-primary education, as a continuum of the progress made in primary education by previous and ongoing implementation of International Development Association (IDA) and Global Partnership for Education (GPE) financed operations. After many years of decline of the post-primary education and training system, DRC currently faces challenges on both the supply and demand side of human capital development. On the supply side, there is need to reform the system to produce better quality and more relevant graduates; to improve the efficiency of the system; and to strengthen system and institutional governance. On the demand side, there are millions of out-of-school youth who either dropped out of school or finished school but could not find decent jobs and need to be reintegrated into the economy. In addition, the country needs a critical mass of a skilled labor force to achieve its goal of an economic transformation. Considering the size of the country and the magnitude of the challenge, the project takes on a phased approach, focusing on the supply side of the education system and putting in place systems for following up investments from the Government and the partners to address the demand side challenge.

2. Specifically, the project will focus on improving the quality of mathematics and science teaching and learning in secondary education, and the relevance and governance of TVET education provision at the secondary and tertiary levels. The project will extend its coverage to selected geographical areas, using pre-identified criteria agreed upon with the Government. TVET will focus on the provision of skilled workers to agriculture, extractive industries and construction, identified as priority sectors for the country's economic growth. New technologies will be considered in a cross-sectoral manner.

3. The project has two main components and a supporting component for project management, and M&E. The following table outlines the Project's components and sub-components

	Component		**Sub-component**	**Responsibility**
1	Improving the teaching and learning of mathematics and science in general secondary education	1.1	Development of secondary education strategic framework and strengthening of mathematics and science curricula for secondary education with improved teaching and learning conditions	MEPS-INC
		1.2	Upgrading mathematics and science curricula for in-service and pre-service training of secondary teachers at ISPs	MESU
2	Enhancing the relevance of TVET in priority sectors at secondary and tertiary education levels	2.1	Development of a TVET Strategy and enabling framework	METP
		2.2	Enhancing the quality and relevance of secondary TVET in the priority sectors	METP
		2.3	Enhancing the quality and relevance of tertiary TVET in the priority sectors	MESU
3.	Project coordination, monitoring and evaluation			MEPS-INC, METP, MESU, CAT

Component 1: Improve the teaching and learning of mathematics and science in secondary education (US$101.2 million equivalent)

4. This component supports the strategic direction for improving the quality of secondary education expansion and the provision of a more suitable environment for teaching and learning of Math and Science.

Subcomponent 1.1: Development of secondary education strategic framework and strengthening of mathematics and science curricula for secondary education with improved teaching and learning conditions

5. **Development of secondary education strategic framework.** Achievements made in primary education have resulted in a significant expansion of secondary education, positioning DRC's access above the SSA average since 2009. In 2012, gross enrolment rate was 43.3% in DRC compared to 41.2% in SSA. But quality and internal efficiency lagged, with the rate of repeaters at 12% compared to 9% for the SSA average. The project will provide technical assistance (TA) to support the development of a strategic framework together with an implementation plan for secondary education. TA will help address the issues of quality improvement and equity in secondary education taking into consideration limited public resources, trade-offs and linkages with the labor market. In addition, the project will finance consultation workshops and activities related to the dissemination of the strategic framework and its implementation.

6. **Strengthening of mathematics and science curricula.** Secondary education curricula have not kept pace with shifting socio-economic realities in DRC. Developed more than three decades ago, they have become obsolete in their content and teaching methodologies. The project will finance TA to support the upgrading and implementation of math and science curricula to integrate contemporary pedagogical methodologies. TA will also support the development of practical and user-friendly teaching materials (teachers' handbooks) which will facilitate effective teaching. In addition, science kits, together with teachers' handbooks, will be provided as a package to all math and science teachers in estimated 4,500 secondary schools that have math and science options in DRC. The project will also support the design and delivery of a training program for inspectors and pedagogical advisors to help ensure that teachers in the schools understand the new curricula. The renewed curricula and programs will become national programs with countrywide implementation.

7. **Establishment and rehabilitation of science laboratories in selected secondary schools for a demonstration effect.** The project will finance the improvement and installation of science laboratories in selected secondary schools, including necessary civil works. Access to a modern science laboratory is critical for improving the quality of science teaching and learning in secondary education. The introduction of modern science laboratories nationwide is not fiscally or operationally feasible in the short to medium term. The project will, therefore: (i) rehabilitate and equip approximately 36 schools with science laboratories in the six targeted provinces; and (ii) make provision for small works and furnishing for the surrounding classrooms. Schools will be selected based on a set of core criteria, including the availability of math and science options, adequate infrastructure, and proximity to secondary teacher training institutes. These schools will serve as practice schools for math and science teachers being trained at the teacher training institutes, and will be part of both in-service and pre-service teacher training (subcomponent 1.2).

Subcomponent 1.2: Upgrading mathematics and science curricula for in-service and pre-service training of secondary teachers at ISPs

8. **Improving the capacity of <u>future</u> Math and Science teachers.** The effective implementation of revised math and science curricula requires competent teachers in the classrooms with updated knowledge in these subjects. The revision of secondary education curricula will require a concurrent curriculum review for the secondary teacher training institutes (ISP). The institutes' *Sciences exactes* (Mathematics, Physics, Biology and Chemistry) curricula will be revisited and teacher training programs will be strengthened, including in-service training. The project will finance the upgrading of math and science curricula for the ISP, and refresher courses for professors at these institutes, based on the upgrading of general secondary education curricula. The project will also finance the development and distribution of relevant teaching materials and laboratory equipment, as well as small rehabilitation works.

9. The renewed curricula will be disseminated countrywide and benefit secondary ISPs which provide training in math and science. Moreover, in an effort to strengthen the professional development of teachers, the project will introduce a more structured pre-service training program based on a partnership between the secondary ISP of the six selected provinces and about 36 secondary schools that have math and science options and are in close proximity to these institutes. The surrounding secondary schools will serve as practice schools for the placement of the institutes' students to complete their theoretical courses with practical application. As part of the partnership, students and teachers from these secondary schools could also have access to the institutes to practice in the laboratories and also to participate in the evaluation of research work undertaken by the institutes' students.

10. **Improving the capacity of <u>existing</u> math and science teachers**. Approximately 13,500 teachers are currently deployed country-wide to teach math and science in general secondary, but lack proper training. The project will support 6-week in-service training for approximately 8,600 math and science teachers in the six selected provinces. Training will take place at the secondary ISP during summer recess. The project will support the ISP to develop an intensive in-service training program focused on familiarizing teachers with the new curricula, upgrading subject knowledge and exposing teachers to contemporary teaching methods. Teachers will be assessed on their knowledge and skills at the beginning and end of in-service training to evaluate the effectiveness of training programs and delivery. This activity will be rolled out from Year 3 of implementation, following the finalization of the new curricula. The project will finance international and national TA for the development of the 6-week intensive in-service training program, stipends to teachers taking the training and costs related to the organization of the training sessions.

Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels (US$86.8 million equivalent)

11. This component uses a two-pronged approach to improve knowledge and skills in priority sectors to support accelerated economic growth; and to better align the delivery of TVET with labor market demand. The current TVET system in DRC does not provide Congolese youth with knowledge and skills relevant to the needs of a growing and changing economy. Training programs are overly theoretical with insufficient attention paid to workplace application. The majority of students from tertiary programs continue to graduate with poor qualifications and skills that undermine their ability to find employment. Despite a signed agreement between line ministries and the private sector to develop a partnership, the involvement of the private sector in contributing to the improvement of TVET has been limited.

12. With the two-pronged approach, this component provides support at the system level and the institutional level:

- *At the system level*: It will support the development and introduction of an enabling regulatory framework incorporating a number of reforms for the progressive development of a demand-driven TVET system.

- *At the institution level*: It will support the strengthening of relevance of TVET in a number of public secondary schools and tertiary institutions to cater more effectively to the labor market needs of the economic sectors covered by the project, using principles and approaches set in the reforms introduced at the system level.

Subcomponent 2.1: Development of a TVET strategy and enabling framework

13. The reform agenda, as prescribed by the newly promulgated National Education Law (2014), incorporates the following key interventions. For TVET: (i) a renewed and strengthened public-private partnership (PPP) to ensure private sector consultation and involvement in the development of the system; (ii) a new management and operating model for secondary TVET schools with greater autonomy and accountability; (iii) a competency-based approach for curricula development and related teacher training program; (iv) the establishment of a system for TVET training certification; (v) a sustainable financing model; and (vi) the M&E of training activities. For tertiary education: (i) the replacement of current undergraduate programs with three-year programs, in alignment with the LMD system; (ii) the introduction of shorter institution-specific programs designed to develop specific competencies; and (iii) quality assurance in the delivery of academic programs.

14. **Development of a coherent strategic policy framework for TVET education.** The project will support the development of a more coherent TVET policy framework to improve the governance of the system and more effectively align educational outcomes with labor market demand. The development of the policy framework could explore the feasibility of: (i) establishing a Skills Development Fund; and (ii) a National Center for Vocational Education and Training Development. The project could finance twinning arrangements with government entities in other countries to familiarize the Government of DRC with international best practices and lessons learned by others.

15. **Public-private partnership (PPP).** The project supports the revision of the current PPP agreements signed between MEPS-INC on one hand, and the MESU on the other hand, with the professional federations. Parties to the agreement need to clearly define their roles and responsibilities and formally commit to existing institutional, technical and financial arrangements. Further development and implementation of the PPP will include: (i) cooperation in organizing internships and training and private sector participation in curriculum development; (ii) FM; and (iii) monitoring of the PPP implementation. Signatories of the PPP will extend to the Ministries in charge of education, participating in the project. The project will finance workshops and national TA to redraft the PPP framework and communications campaigns to publicize the PPPs.

16. **New management and operating model for secondary TVET schools.** The project supports the introduction of a new management and operating model for secondary TVET schools based on private sector participation and principles of accountability and results. The main reforms introduced with the model include: (i) effective PPP with participation of representatives of the private sector in school management committees to better identify and address skills shortages, to develop training programs which alternates academic study and

practical work experience to participate in examinations and certification; (ii) a coherent FM framework linking needs and priorities to available resources; and (iii) use of performance based contracting. The project finances TA to propose a new management and operating model, workshops to discuss and gather stakeholders' views as well as communications campaigns to impart the new model.

17. **Certification of TVET training and quality of academic programs**. Innovative learning approaches introduced into TVET curricula and training programs require the development of a National Qualification and Certification framework which enables to: (i) validate professional experience; (ii) certify work-study programs and traineeships in enterprises; and (iii) include competency-based teaching methodologies and learning modules. At the tertiary level, quality assurance will be developed with the establishment of an independent Quality Assurance Agency. The project will finance international TA to develop and implement the qualifications framework and the establishment of the Quality Assurance Agency, with possibility of international experience exchanges.

Subcomponent 2.2: Enhancing the quality and relevance of secondary TVET in the priority sectors

18. This subcomponent focuses on improving the quality and relevance of TVET education at selected secondary schools, aligned to priority economic growth sectors, in the six targeted provinces. The project supports the revision of curricula and improving the supply of qualified secondary TVET instructors in the priority sectors. In addition, it provides block grants to pilot TVET delivery with increased private-sector participation and stronger FM.

19. **Development and implementation of curricula and accompanying training programs.** The project supports TA and related activities for the development and implementation of TVET curricula in the three economic priority sectors covered by the project. For agriculture, the project adopts the new curricula designed by the Government with VVOB[8] assistance, and supports the production of complementary pedagogical materials. For construction and extractive industries, the curricula will be developed with the competency-based approach. Design will focus on skills essential to employability, entrepreneurship and the practical workplace experience. Cross-cutting issues such as the promotion of gender equity and environmental sustainability will be integrated into curricula design.

20. **Provision of block grants in approximately 15 public secondary TVET schools.** The project supports the provision of block grants to the eligible schools to finance the implementation of school development plans (SDP). SDPs are intended to encourage schools to be more responsive to the local needs of their economic environment and to promote more effective and transparent use of resources. An output-based model for financing and mutual accountability for results between the ministry governing TVET and the schools will be promoted.

21. The beneficiary schools will be required to develop an SDP proposal, presenting an in-depth description of the school and its strategic direction with objectives and intended results for a four-year support program, backed by a financing plan. The proposals will be reviewed by a committee incorporating participation from the private sector. SDPs will be weighed against the following criteria: (i) the relevance of the proposal in the context of the local and national economic environment and its potential contribution; (ii) the realism of the proposal;

[8] VVOB supported the design of respectively 6 and 5 curricula for technical and vocational schools in agriculture; CTB financed the development of 10 *référentiels* in other sectors.

(iv) the quality of the governance measures embedded in the proposal; and (v) the commitment of the school teaching and administrative staff. Once an SDP is approved, the schools will be required to develop a full-fledged proposal detailing the technical fields, the flow of students, rehabilitation and equipment needs, training needs, required investment and recurrent costs, and a financing plan with sources of funding.

22. In accordance with the approved SDP, each selected school will sign a contract with the ministry responsible for TVET, committing both parties to the contract which will include agreed quantitative and qualitative outcomes (such as enrollment rates, internships, signed partnership agreements, pass rates, girls' participation, etc.) and the details of funding to be provided.

23. Through the course of implementation, schools will be required to submit bi-annual reports to the ministry, presenting quantitative, qualitative and financial results for the purpose of monitoring progress of program implementation. Annual audits of each beneficiary schools will also be conducted.

24. The selection of public TVET schools that will benefit from block grants will be made in line with the following criteria: (i) the presence of operational programs of study (*filières)* targeted by the project; and (ii) the location of schools in an environment suitable to the development of a training model premised on PPPs. The final list of selected schools must conform to the profile of the education sector in DRC: of selected schools, 30 percent will be state-run schools and 70 percent will be faith-based schools.

25. The project finances TA to assist the selection committee of SDPs in the review and selection process. The project also finances TA to assist the schools with approved SDP in developing the full-fledged proposal. During the course of SDP implementation, the project will finance TA for monitoring progress. In addition, it will finance annual technical audits.

Subcomponent 2.3: Enhancing the quality and relevance of tertiary TVET in the priority sectors

26. TVET programs in higher education face similar challenges as those observed in **secondary** schools. The demand for higher-level skills increases with globalization; however, in DRC most tertiary level students continue to graduate from programs that do not provide them with the relevant knowledge and skills to find a job and thus participate in the country's economic growth. Furthermore, it is important to build consistency across the system and strengthen institutional flows and relevance between secondary and tertiary education. The institutes for technical teacher training (*Instituts Supérieurs Pédagogiques et Techniques* - (ISPTs)) play an essential role in the training of future secondary technical and vocational teachers. Their training should function in harmony with developments that occur in TVET secondary education (such as new curricula, teaching methods, etc.) and developments in higher education institutions programs.

27. The project supports: (i) the upgrading of skills of secondary TVET instructors, (ii) the replacement of current undergraduate programs with three-year programs, aligned to the LMD system; and (iii) the introduction of short institution-specific programs designed for particular competencies. The beneficiary institutions will develop these programs in line with a PBC entered into with the Ministry of Higher Education (MESU).

28. **Upgrading knowledge and skills of secondary TVET instructors with the strengthening of two institutes for technical teacher training (ISPT).** ISPT training

programs require upgrading to align the training of secondary TVET instructors with developments in secondary TVET and reforms in the development of vocational programs by the institutions of higher education.

29. The project will support the upgrading of two institutes in the provinces of Kinshasa and Katanga: the ISPT of Kinshasa and Likasi. Specifically, the project will support the following activities: (i) review of current curricula and training programs to align them with recent or upcoming developments at the secondary level (e.g., the agriculture curriculum) but also at tertiary level; (ii) refresher courses for teachers; and (iii) provision of relevant equipment to address the teaching and learning needs as well as some rehabilitation to shelter the equipment. A work plan for the ISPTs will be developed. PBC will not govern the implementation of the two ISPTs' work plans.

30. **Replacement of the undergraduate programs in the priority sectors**. The project will support MESU in its efforts to reform the higher education programs in accordance with the LMD system. The new undergraduate programs will be 3-year professional degrees. Their objectives will be defined by competencies in collaboration with practicing professionals. Each program will be structured in terms of credited modules and courses according to the LMD system prescriptions, will incorporate credited work-place training and a significant portion of the courses will be given by active professionals. This will insure that graduates from these professional degrees will be well prepared to enter the labor market. Before being offered, these new programs will be evaluated by an independent agency and authorized by MESU. Thereafter, they will be generalized throughout the country.

31. **Introduction of short institution-specific programs.** The National Education Law adopted in 2014 allows higher education institutions to develop their own programs in response to specific needs perceived by the institutions. These institution-specific programs will be at the undergraduate level and their duration will not exceed three years. They do not need the approval of MESU. They will be professional programs designed to meet specific needs of the labor market and developed in close collaboration with the private sector. Curricula will integrate practical work experience. Professionals from the private sector will teach part of the academic courses. Also, the programs will be developed within the LMD system so that students could shift to the regular programs if necessary. Examples of such programs are programs to train people in the prevention of accidents in the workplace, and programs to prevent and reduce damages done by environmental disasters in the extractive industries.

32. **Performance-Based Contracts (PBC)** will be used to finance the development of these new programs and at the same time to correct some of the weaknesses of undergraduate education: low internal efficiency, poor utilisation of ICT, lack of contacts with employers. PBCs are results-oriented and allocations are tied to the achievement of specific, measurable targets and indicators. PBCs are signed between MESU and the institutions. Both signatories have contractual obligations. MESU will make allocations as stated in the contract; the institutions need to achieve their results as stated in the contract. Beneficiary HEIs, performing under PBC, were selected based on criteria; some of which were applied upstream (staff availability, management capacity), others are based on commitments by means of formal letters addressed to the MESU.

33. Each beneficiary institution will submit a formal proposal to MESU. This proposal will include (i) an in-depth description of the institution and its strategic plan; (ii) the identification of the academic units (faculties/departments) in charge of the development of the academic programs; (iii) the strategic plans of these units; (iv) the proposed PBC of the institution including the commitments and targets of each unit; (v) the action plan of the

institution and its units; and (vi) the budget requested for each unit and for the coordination of the PBC. PBCs will have a duration of 5 years and will take into account the following indicators:

- **Design of new undergraduate and short programs**
  1. New undergraduate Licence developed, evaluated and accepted by the Ministry
  2. Number of short specific programs developed in priority sectors
  2. Enrollment rates (number of students) in above-mentioned programs
  3. Percentage of programs with work-place experience
- **Progress towards use of ICT**
  1. Percentage of teaching staff that put their courses (syllabi) online
  2. Percentage of students that have a personal computer
  3. Percentage of teaching staff that uses ICT when teaching
- **Collaboration with private sector**
  1. Number of established joint public-private program development committees
  2. Percentage of courses taught by professionally active staff from private sector
- **Improvement in internal efficiency**
  1. Repetition rates (% of students repeating one year in new programs)
  2. Dropout rates (% of students dropping out of newly-developed programs)
- **Improvement in the quality of teaching and learning**
  1. Percentage of teaching staff trained in the LMD system
  2. Percentage of syllabi assessed by students
  3. Presence of an internal operational quality assurance unit
  4. Number of laboratories well equipped to support teaching needs

34. The approval process is based on an ongoing technical discussion between the institution and the MESURS that seeks to improve and/or complete the proposal. Upon approval, both parties sign the PBC. The contract is then valid and MESURS will disburse an advance to allow the institution to start the realization of its PBC. The funds given to the institution will clearly indicate (i) the amounts awarded to each unit for developing the short cycle programs; and (ii) the amount provided to the institution for the coordination of the PBC. Expenditures are unconditional but are ineligible for the construction of new buildings and the payment of salaries/incentives to the regular staff of the institution. World Bank procedures will be used for the acquisition of goods and services in the execution of the PBC.

35. **Higher education institutions (HEIs)** will be in charge of the implementation of their PBCs. These institutions are autonomous. Each HEI will have to set up a PBC management team working under the responsibility of the Rector and comprising of: (i) a coordinator, (ii) a procurement focal point, and (iii) a financial management specialist and a monitoring and evaluation specialist. Once the PBC is approved by the Government and the World Bank, each HEI will be in charge of procurement and financial management of their PBC. Training will be provided through the project to reinforce procurement capacities.

36. During PBC implementation, each university will prepare a semi-annual strategic plan and PBC progress report. These reports will be consolidated yearly into a project implementation report. These reports will be used in the annual review of the PBCs and along with the external evaluation of PBC to agree on the performance of PCBs and the allocation for the PBC for the next year.

37. Beneficiary HEIs were selected based on criteria; some of these were applied upstream (staff availability, management capacity), others are based on commitments by means of formal letters addressed to the MESURS. For reasons of coherence, and in harmony with the

Secondary Education level, this Component will target the same growth sectors. The criteria for the selection of the institutions are presented below:

- **Upstream**:
  1. Availability of human capital (number of qualified teaching staff);
  2. Institutional capacity to manage a Performance-based Contract (PBC).
- **Downstream**: Make formal commitments to
  1. replace existing undergraduate programs by new three year programs designed and structured according to the LMD system and better aligned them with labor market requirements;
  2. develop short programs that respond to specific labor market needs;
  3. incorporate traineeships and practical work experience in undergraduate programs;
  4. closely collaborate with private sector to jointly develop new curricula and rely on professionally active staff from enterprises for some of the teaching;
  5. adhere to the terms and conditions of a PBC.

38. The project finances the PBC signed between MESU and the selected higher education institutions as well as annual reviews and assessments of PBC implementation, leading to disbursement decisions. The project also supports the establishment of an independent Quality Assurance Agency (see Subcomponent 2.1). In addition, it provides TA to support the development and implementation of a framework with standards and principles of the LMD system.

39. The higher institutions selected are presented below, by economic sectors, identified as growth areas:

	Agriculture and environment
	• University of Kinshasa
1	***Faculté d'Agronomie***
2	***Faculté de Pharmacie***
	• University of Lubumbashi
3	***Faculté de Médécine Vétérinaire***
	• University of Kisangani
4	***Centre de Biodiversité et Environnement***
	• Institut Supérieur d'Etudes Agronomiques - Kenge **• Institut Facultaire d'Agronomie de Yangambi (Kisangani)**
	Mines et Oil
	• University of Kinshasa
5	***Faculté des Sciences***
	• University of Lubumbashi
6	***Ecole Supérieure de Génie Industriel***
	Infrastructures
	• University of Kinshasa
7	***Faculté de Polytechnique***
8	**Institut Supérieur des Techniques Appliquées de Kinshasa (ISTA)**
9	**Institut National du Bâtiment et des Travaux Publics (INBTP)**
	Training of TVET secondary teachers
10	**Institut Supérieur Pédagogique et Technique (ISPT) de Kinshasa**
11	**Institut Supérieur Pédagogique et Technique (ISPT) de Likasi**

40. **Reinforcement of Quality Assurance (QA).** The project will support measures to evolve the development of the contemporary QA system, with the intention of establishing an independent QA agency. The mission of this agency will be the evaluation of institutions and programs, and it will form an integral component of an improved system for the regulation of higher education. Procedures and standards developed by the QA agency will guide local quality assurance units within institutions and help ensure quality for newly-developed programs. The project will provide support the establishment of the QA agency.

Component 3. Project coordination, monitoring and evaluation (US$12.0 million equivalent)

41. The project supports activities aiming to ensure effective project coordination, and M&E of project outcomes. Consultancy services will be provided to expand knowledge on technically focused education and training subject matters, and in evaluation work. Technical knowledge sought will also endeavor to strengthen the relevant technical departments within MEPS-INC, METP and MESU. The project will support additional implementation-related

activities including, but not limited to, communications strategies and campaigns, data collection and monitoring, tracer surveys, audits, and safeguards monitoring.

Complement to Annex 2
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

Selection Criteria

1. While some activities such as strategy development and the upgrading of curricula benefit the system country-wide, other specific interventions such as training, the upgrading and equipping of labs and the development of TVET programs focus on six administrative provinces and benefit a selected number of secondary schools and tertiary education institutes. The geographical targeting and the limited number of institutional beneficiaries are intended to support the achievement of tangible outcomes. Lessons learned through the implementation of this project will serve as the basis for the scaling up of successful initiatives to more institutions and provinces, as well as for broadening the scope for successful interventions (beyond Math, Science and the identified priority economic sectors).

2. In close coordination with the Government, criteria were discussed and agreed on for the selection of the provinces and the beneficiary institutions.

A. Selection of Provinces. The following set of criteria were used:

- Poverty rate (source: 1-2-3 Report on Employment, Informal Sector and Household Consumption, 2014);
- Consistency and synergy across the sector;
- Response to the government's agro-industrial parks program;
- Complementary with the Bank's Growth Poles project; and
- Capacity of the tertiary subsector (source: Statistical Yearbook for Higher Education, 2012/2013; and Results of HEI viability survey, Kapagama, Pascal (2011)).

3. Using a mix of the above criteria, the following six administrative provinces were selected: Katanga, Province Orientale, Kasai Occidental, Equateur, Bandundu and Kinshasa.

(i) For potential impact on poverty reduction: **Equateur** (78.3%)**, Bandundu** (75.9%), **Kasai Occidental** (74.8%), and **Province Orientale** (70.7%) having poverty above the national average of 60%.

(ii) For consistency across the sector, building on investments in primary education by the Bank and the GPE: **all the 6 provinces and Equateur and Kasai Occidental** for GPE; TVET synergy between secondary and tertiary: **Katanga, Province Orientale and Kinshasa.**

(iii) To respond to the government's agro-industrial program and the Bank's Growth Poles project: **Bandundu** for the Bukangalonzo Agribusiness Park particularly, and **all the 6 provinces** with economic activities in agriculture, construction and mining.

(iv) Capacity of the tertiary institutions to undertake reforms promoted under the project: **Katanga, Province Orientale and Kinshasa.**

B. Selection of HEI operating under performance-based contracting

4. Criteria were applied upstream (staff availability, management capacity), and downstream with commitments made to MESU by means of formal letters.

- **Upstream**:
  1. Availability of human capital (number of qualified teaching staff);
  2. Institutional capacity to manage a Performance-based Contract (PBC).
- **Downstream**: Make formal commitments to
  3. replace existing undergraduate programs by new three year programs designed and structured according to the LMD system and better align them with labor market requirements;
  4. develop short programs that respond to specific labor market needs;
  5. incorporate traineeships and practical work experience in undergraduate programs;
  6. closely collaborate with private sector to jointly develop new curricula and rely on professionally active staff from enterprises for some of the teaching;
  7. adhere to the terms and conditions of a PBC.

C. Selection of senior general secondary schools

5. The following criteria were discussed and agreed upon:

1. A public secondary school registered and budgeted;
2. A public secondary school that is not under the transformation process to become a technical school;
3. A public secondary school that offers the scientific options;
3. A public secondary school with adequate infrastructure (with laboratories even if they are not in operational condition): the aim is to select old renowned schools that have a long tradition of teaching Math and Science;
5. A public secondary school with easy access and proximity of the teacher training institute (5 km); and
6. In case of equality of choice, the number of girls will be the determinant factor.

Annex 3: Implementation Arrangements
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

1. Three ministries will be ultimately accountable for meeting the objectives of the project: MEPS-INC, METP and MESU.

2. **Strategic Direction**. A Steering Committee (SC) will be established under the Project. It is chaired by the Minister of MEPS-INC, with the Ministers of MESU and METP as Co-Chairs. The SC is further comprised of: the Secretary Generals (SGs) of MEPS-INC and MESU; and the representatives of the Ministry of Finance, the relevant Directorates and representatives of the private sector targeted by the project. The SC has the following responsibilities, to: (i) provide strategic direction to the project; (ii) approve the project annual work plans; and (iii) evaluate the project progress. It will meet twice a year. The existing Technical Assistance Unit (*Cellule d'Assistance Technique* - CAT) within the MEPS will assume the role of Secretariat. The SC will be established by a government decree.

3. **Overall coordination.** The CAT will be responsible for overall project coordination and evaluation as well as project reporting. The CAT was established with donor support to monitor the implementation of the *Interim Education Plan* and the harmonization/coordination of donor interventions; as a result, it has developed significant expertise in technical education issues. At present, it has capacity in education planning and economics, sector budgeting, training system development, and M&E. The project will provide TA to the CAT to further strengthen its knowledge in topics related to the development of education, including economics of education and labor market dynamics.

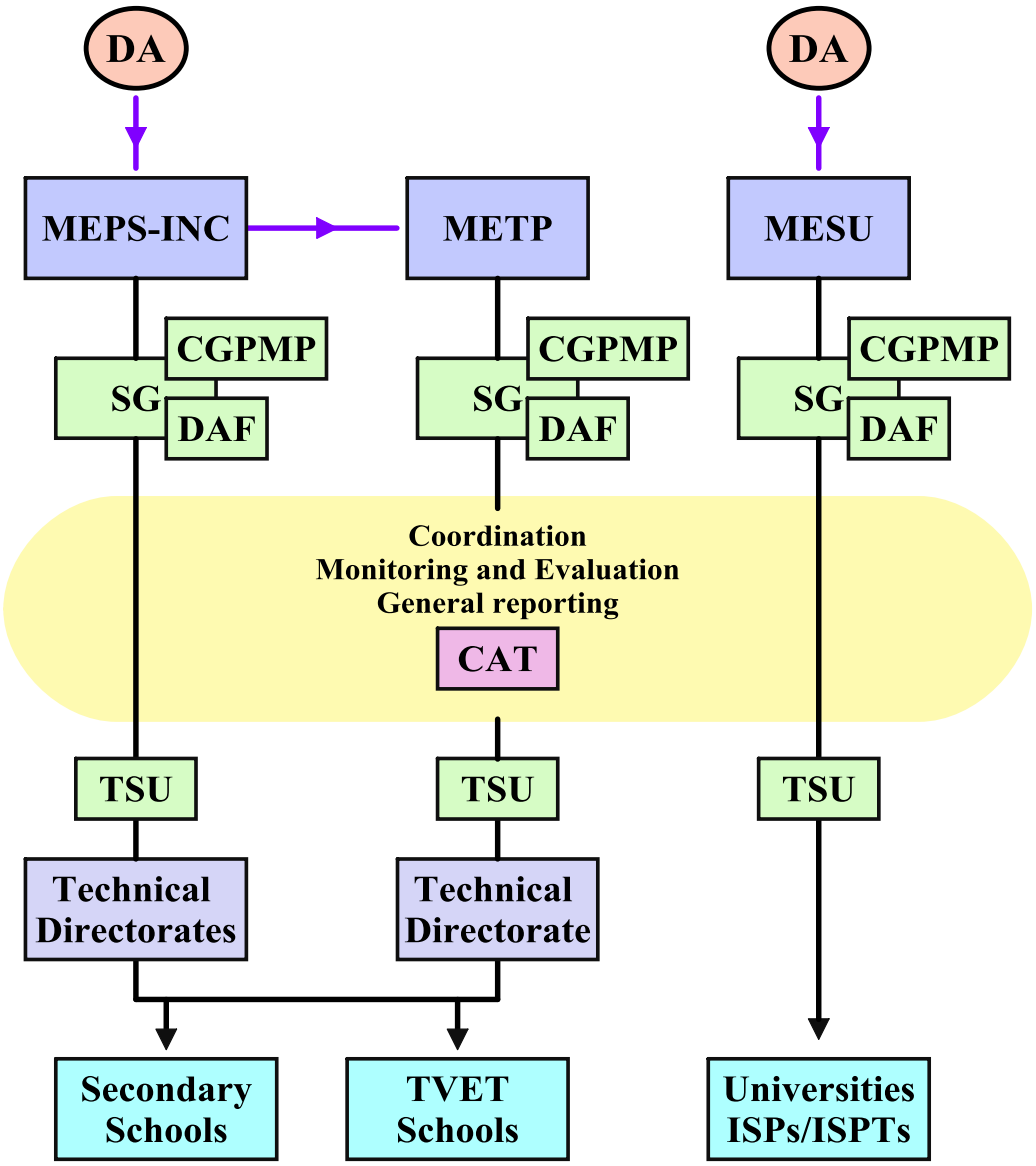
4. **Project implementation** will fall under the authority of the SGs of each education ministry. Technical Support Teams (TST) will be established to assist the SGs in the day-to-day operation and will be manned with staff with strong capacities in leadership, project programming, planning, synchronization, and monitoring of activities. Procurement and FM experience will also be included, in coherence with the capacities of the SGs administration.

5. The technical Directorates will implement project activities that fall under their jurisdiction, in synergy with one another towards the achievement of project objectives, and will be strengthened with technical knowledge.

6. In higher education, the higher education institutions (HEIs) will be in charge of the implementation of their performance-based contracts (PBC) signed with the MESU. These HEIs are autonomous. The project will support the strengthening of the governance bodies, management structures and systems. Each University will have to set up a PBC management team working under the responsibility of the Rector and comprised of (i) a coordinator, (ii) a procurement focal point, (iii) an FM specialist and an M&E specialist. Once the PBC is signed, after Bank's no-objection, each HEI will be in charge of procurement and FM of their PBC.

7. **A recent government reshuffle (2014) has resulted in the establishment of a new Ministry for TVET (METP).** This Ministry is still in the process of establishing its administration and will adopt the same project implementation structure as MEPS-INC and MESU. For the time being, procurement and FM responsibilities will rely on the set-up under the SG-MEPS-INC.

Chart 1: Implementation arrangements structure



Note: Arrows indicate flow of funds (from two Designated Accounts)

Annex 4: Financial Management, Disbursements and Procurement
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

Financial Management and Disbursements

1. The project development objectives are to: (i) improve the teaching and learning of mathematics and science in general secondary education; and (ii) enhance relevance of TVET in priority sectors in secondary and tertiary education levels. The project has three components: (i) Component 1: Improve the teaching and learning of mathematics and science in general secondary education; (ii) Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels; and (iii) Component 3: Project coordination, monitoring and evaluation.

2. The description of the components is detailed in Annex 2.

Country PFM situation and Use of Country System

3. The Country Financial Accountability Assessment (CFAA), the Public Expenditures Review (PER), and the Public Expenditure and Financial Accountability (PEFA) 2008 and 2012 showed an unsatisfactory economic and financial control environment including weak budgeting preparation and control, financial reporting, external audit and human resources. In-depth structural reforms are consequently required in the areas of economic governance, public expenditure management, financial sector and public enterprises to strengthen capacity in the public administration. To this end, with the support of the donor community, the Government of DRC has undertaken a series of Public Financial Management (PFM) reforms in budget preparation and execution, adhesion to Treasury forecasts, preparation of regular budget execution reports, and simplification of the national budget classification system.

4. The first critical step of these series of PFM reforms was the adoption in July 2011 of a new PFM Organic Law preceded by the adoption of a new Procurement code in December 2008. Additional decrees are being finalized to further clarify the organic Law. Yet, there is reason for cautious optimism; since it will take time for these reforms to yield substantial improvements in the management of public funds. As a result, the overall country fiduciary risk is still considered high. The repeated PEFA, concluded at the end of 2012, took stock of the areas of progress and revised the existing PFM strategy plan accordingly. The Strengthening PFM and Accountability Project (P145747), effective since May 2014, aims to strengthen the PFM system both at the central and some provinces levels. The outcomes of the Use of the Country national PFM Systems (UCS) assessment report which had been undertaken in April 2013 will be gradually implemented for Bank-financed projects. Concerning internal and external audits, discussions will be held with the Government to organize the working environment of the *Inspection Générale des Finances (IGF)* and the *Cour des comptes*.

5. In that vein, the proposed project will be entrusted to the SG of MEPS-INC and the SG of MESU in close collaboration with METP and other technical units of these ministries.

Risk Assessment and Mitigation Measures

6. The Bank's principal concern is ensuring that project funds are used economically and efficiently for the intended purposes. The risk can be explored in two ways: (i) the risk

associated to the project as a whole (inherent risk), and (ii) the risk linked to a weak control environment of the project implementation (control risk). These risks are described in further detail below.

Risk	Risk rating	Risk Mitigating Measures Incorporated into Project Design	Risk after mitigation measures	Conditions for effectiveness (Y/N)
INHERENT RISK	**S**		**S**	
Country level Poor governance and slow pace of implementation of PFM reforms that might hamper the overall PFM environment.	H	Some PFM reform programs are currently ongoing through IDA-financed projects Enhancing Governance Capacity (P104041), and Establishing Capacity for Core Public Management (P117382), in addition to the project "Strengthening PFM and Accountability" (P145747) effective since May 2014. These reforms will address the key new challenges the country is facing.	H	N
Entity level Lack of coordination of involved stakeholders, limited FM capacity of the SG/MESU in implementing World Bank-financed projects and overall political interference in the administration.	S	The financial management units established within both MEPS-INC and MESU will ensure the Project's financial management Follow-up the recruitment process of the financial management team at the MEPS-INC and MESU level in order to ensure that the recruited consultants have adequately high experience in financial management. Establish a manual of procedures, as part of the PIM which clarifies the roles and responsibilities of the various stakeholders. The PIM will define implementation procedures in line with adequate fiduciary requirements. Provide Technical Assistance to the financial management units established within both MEPS-INC and MESU by rolling out the fiduciary training plan which aims at strengthening the capacity of this entity's fiduciary staff and establishment of a credible internal audit unit reporting to the project steering committee.	S	N
Project level Weak coordination capacity,	S	The PIM will improve involved stakeholders' capacity.	S	N

lack of availability of different stakeholders involved in other tasks within their usual duties and risk of fraud and corruption.				
CONTROL RISK	**S**		**S**	
Budgeting Weak budgetary execution and control inducing budgetary overspending or the inefficient use of funds.	S	The PIM will pave the way for the Project activities planning and the related budgets preparation, as well as the collection of information from involved stakeholders.	S	N
Accounting Lack of reliable accounting system and little knowledge of the financial management procedures of the World Bank.	S	Purchase appropriate accounting software, customized to generate the financial reports of the project. Implement appropriate training sessions based on agreed accounting procedures.	S	N
Internal Controls and Internal Audit Weak compliance with FM procedures manual and of circumventing internal control systems	S	(i) Regular internal audit missions (technical and financial audit) will be conducted during the project implementation with a focus on fraud and corruption risk; (ii) Recruitment of an internal audit Consultant who will contribute to project's internal control environment strengthening; and (iii) establish a channel of collaboration between IGF and the project's internal audit unit to agree on project's risk mapping and work program.	S	N
Funds Flow Risk of misuse of funds and use funds to pay non eligible purposes Risk of misused and inefficient use of funds. Weak capacity in the disbursement procedures of the World Bank which could affect the disbursement rate.	H	Organize frequent controls of each actor in order to help prevent and mitigate the risk of diversion of funds. Payment requests will be approved for MEPS-INC by its Secretary General of MEPS-INC and its Financial Officer, and for MESU by its Secretary General and its Financial Officer Coordinator. Require the future FMs to ensure monthly submission of the withdrawal application.	S	N
Financial Reporting Delay and difficulties in the submission of acceptable IFRs to the World Bank due to weak capacity of the FM team and to the number of stakeholders involved in the project.	S	The Project's accounting software will facilitate the IFRs preparation Agreement on the format and content of the Interim Financial Report which will include the project specifics.	S	N
External Auditing External audit arrangements are not defined and lack of capacity of public institutions of control to assure the external audit of the project	S	Recruit an independent auditor based on TORs acceptable to IDA. DRC's Supreme Audit Institution (Cour des Comptes) should be involved in the selection process.	S	N

Governance and accountability Possibility of circumventing the internal control system with colluding practices as bribes, abuse of administrative positions, mis-procurement, is a critical issue.	H	(i)The TOR of the external auditor will comprise a specific chapter on corruption auditing; (ii) FM manual of procedures will include anti-corruption measures with a specific safety mechanism that enables individual persons and NGOs to denounce abuses or irregularities; (iii) Robust FM arrangements designed to mitigate the fiduciary risks; and (iv) Measures to improve transparency such as providing information on the project status to the public, and to encourage participation of civil society and other stakeholder will be built into the project design. The implementing agency will prepare a code of conduct including clear procedures for disciplinary action.	H	
Overall FM risk	**S**		**S**	

7. The overall risk rating at preparation is **Substantial**.

Strengths and Weaknesses

8. The main strengths of the system include: the existence of a PPA Advance request which will finance: (i) the recruitment of experienced FM staff; (ii) the setup of relevant accounting software, and (iii) and the adoption of the project operations manual.

Financial Management Action Plan to reinforce the control environment

Issue	Remedial action recommended	Responsible entity	Due date
Staffing	Recruitment of the Financial Management team comprising (1) for the Secretariat general of MESU (i) a qualified and experienced Financial Manager; (ii) a qualified and experienced Accountant; (2) for universities a qualified and experienced Accountant for each university; and (3) for MEPS-INC a qualified and experienced Accountant.	MEPS-INC, METP and MESU	Three months after effectiveness
Information system accounting software	Installation of accounting software acceptable to the World Bank and establishment of an accounting system acceptable to World Bank.	MEPS-INC, METP and MESU	Three months after effectiveness
Financial reporting: IFR	Format, content, and frequency of the IFR were discussed during project negotiation	MEPS-INC, METP and MESU	Done during negotiations
Administrative, Accounting and Financial Manual of procedures	Prepare the manual of procedures administrative, financial and accounting (as part of the PIM) that also includes detailed procedures describing the system to pay recurrent expenditure with specific sections on anti-corruption aspects.	MEPS-INC, METP and MESU	Received on April 22, 2015
Internal auditing	Recruitment of an internal audit Consultant who will contribute to the project internal control environment strengthening.	MEPS-INC, METP and MESU	Six months after effectiveness
External financial auditing	Recruitment of the external auditor acceptable to IDA	MEPS-INC, METP and MESU	Six months after effectiveness

9. **Governance and anticorruption considerations.** In the context of the project, the following governance and anti-corruption measures will contribute to enhance transparency and accountability during project implementation: (i) ensure an effective implementation of the fiduciary mitigation measures which should contribute to strengthen the control environment; (ii) ensure the appropriate representation and oversight of the Steering Committee involving key actors; (iii) guarantee transparency in the implementation of Project's activities and ensure the involvement of the stakeholders and public during the project implementation; (iv) ensure that the TOR of both the internal audit unit and external auditor will include a specific chapter

on corruption auditing; (v) ensure that the FM manual of procedures will include anti-corruption measures with a specific safety mechanism that will enable individual persons and NGOs to denounce abuses or irregularities; and (vi) finally, support the development of an Anti-corruption action plan will be prepared in addition to the robust FM arrangements designed to mitigate the fiduciary risks.

10. **Staffing and Training**: MEPS-INC as well as METP and MESU and related universities will retain staffing resources that are adequate to support project operations and activities and are sufficient to maintain accounting records relating to project financed transactions and to prepare the project's financial reports. The FM function will be carried out by a team composed of: (1) at the MESU level: (i) a qualified and experienced FM expert in charge of the supervision of all project's FM activities managed by this Ministry; (ii) an experienced Accountant; (iii) an Internal Auditor; and (iv) a qualified and experienced Accountant for each involved university; (2) at MEPS-INC level: (i) a qualified and experienced Accountant to reinforce the FM team in terms of the workload which the new project will generate. The staff will be recruited through a competitive process in compliance with World Bank rules and procedures. The teams will have the overall FM responsibility over budgeting, accounting, reporting, disbursement, internal control, and auditing. MEPS-INC as well as MESU and related universities FM staff will have their capacity reinforced over the project implementation vis-à-vis the rolling out of the training plan that includes training on IDA disbursement procedures, and training on IDA financial reporting arrangements, among others.

11. **Budgeting:** The FM unit of MEPS-INC as well as METP and MESU in close collaboration with other technical units of these Ministries will prepare annual work plans and budgets for implementing project activities taking into account the project's objectives. The work plan and budgets will identify the activities to be undertaken and the role of respective parties in implementation. Annual work plans and budgets will be consolidated into a single document by the FM unit of MEPS-INC with the support of the FM teams, which will be submitted to the World Bank for no objection not later than November 30 of each year proceeding the year the work plan should be implemented. The consolidation will be done after the FM unit of MEPS-INC ensures, through other technical units of MEPS-INC as well as MESU and related universities, that the plan and budget are appropriate for making progress towards meet the project objectives.

12. **Accounting Policies and Procedures:** The Project Implementation Manual (PIM) will detail and document the project accounting, policies and procedures as well as the responsibilities of all stakeholders involved. A "multi-projects" and "multi-sites" accounting software will be purchased and customized to facilitate processing of financial information and to prepare interim quarterly financial statements as well as annual financial statements. FM staff will also be trained to ensure optimal use of the software application. Detailed FM documentation will be maintained in the Project files of the implementing entities.

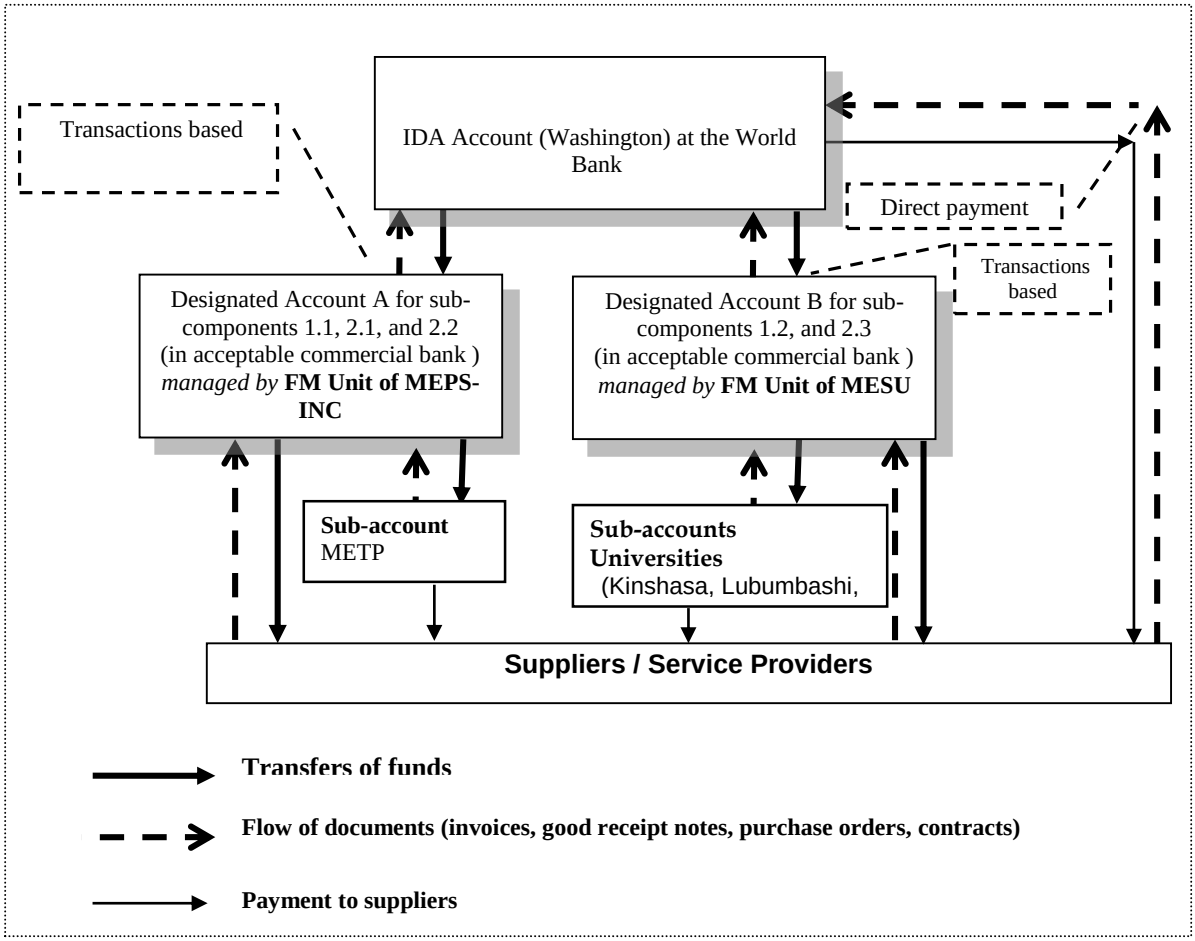
13. **Internal Control and Internal Auditing:** MEPS-INC as well as METP and MESU will ensure that staffing arrangements in place are sufficient to ensure adequate internal controls, preparation, approval and recording of transactions as well as segregation of duties. Internal control procedures will be detailed in the PIM. An internal auditor will be recruited to maintain a sound control environment that will be described in the PIM. In line with DRC Use of Country System (UCS) Report to fully rely on the IGF for project's internal audit, the project's internal control system could be strengthened by establishing a channel of collaboration between Finance General Inspection and the project's internal audit unit to agree on project risk mapping and work programs.

14. **Funds Flow and Disbursement Arrangements:** Two Designated Accounts (DA) will be opened in a commercial bank on terms and conditions acceptable to IDA under the fiduciary responsibility of the MEPS-INC and the MESU and overall oversight by the CAT/ MEPS-INC. A first pooled Designated Account (DA.A) will be used to finance eligible expenditures in sub-components 1.1, 2.1, and 2.2 of the Project. A second segregated Designated Account (DA.B) will be used to finance eligible expenditures in sub-components 1.2, 2.1, and 2.3 of the Project. These DAs will be managed according to the disbursement procedures described in the PIM and the Disbursement Letter (DL) for the Project. The ceiling of the account will be specified in the DL estimated to be the equivalent of four months of project cash needs and will take into account the Project's disbursement capacity. These DAs will be used to finance all eligible project expenditures under the different components. Payments will be made in accordance with the provisions of the manual of procedures (i.e. two authorized signatures will be required for any payment). MEPS-INC will open sub account for METP (while METP is establishing its administration). MESU will open sub accounts at the beneficiary universities. These sub-accounts will be used to pay suppliers and consultants selected through acceptable Bank procurement procedures. Replenishment of these accounts will be done at least once a month by the project upon submission of acceptable supporting documents. Payments from the sub-accounts will be subject to acceptable arrangements for the Bank. The DAs will be replenished against withdrawal applications supported by Statements of Expenditures (SOEs) and other documents evidencing eligible expenditures as specified in the DL. All supporting documents should be retained by MEPS-INC, MESU and METP and readily accessible for review by periodic IDA implementation support missions and external auditors.

Disbursement arrangements

15. **Disbursement method:** Upon Credit/Grant effectiveness, transaction-based disbursements will be used during the first year of project implementation. Thereafter, the option to disburse against submission of quarterly unaudited Interim Financial Reports (also known as Report-based disbursements) could be considered subject to the quality and timeliness of the IFRs submitted to the Bank and the overall FM performance as assessed in due course. In the case of the use of the report-based disbursement, the DA ceiling will be equal to the cash forecast for two quarters as provided in the quarterly unaudited Interim Financial Report. The option of disbursing the funds through direct payments to suppliers/contractors for eligible expenditures will also be available for payments equivalent to twenty percent (20%) or more of the DA ceiling. Another acceptable method of withdrawing proceeds from the IDA grant is the special commitment method whereby IDA may pay amounts to a third party for eligible expenditures to be paid by the Recipient under an irrevocable Letter of Credit (LC).

Diagram of the Flow of Funds



16. **Disbursement of Funds to other Service Providers and Suppliers*:*** MEPS-INC as well as MESU will make disbursements to service providers and suppliers of goods and services in accordance with the payment modalities, as specified in the respective contracts/conventions as well as the procedures described in the Administrative, Accounting, and Financial Manual, as part of the project Operations Manual. In addition to these supporting documents, the Project will consider the findings of the internal audit unit while approving the payments. MEPS-INC and MESU, with the support of its internal audit unit, will reserve the right to verify the expenditures ex-post, and refunds might be requested for non-respect of contractual clauses. Misappropriated activities could result in the suspension of financing for a given entity.

17. **Disbursements by category:** The table below sets out the expenditure categories to be financed out of the IDA Credit and Grant. This table takes into account the prevailing Country Financing parameter in setting out the financing levels. In accordance with Bank standard procurement requirements, contracts will continue to be approved "all taxes included" for local expenditures.

Category	Amount of the Credit Allocated (expressed in SDR)	Percentage of Expenditures to be Financed by the Credit (inclusive of Taxes)	Amount of the Grant Allocated (expressed in SDR)	Percentage of Expenditures to be Financed by the Grant (inclusive of Taxes)
(1) (a) Goods, works, non-consulting services, consultants' services, Operating Costs, Training and Workshops for Components 1.1, 2.1, 2.2(i) and 3 of the Project	47,600,000	65%	25,600,000	35%
(b) Goods, works, non-consulting services, consultants' services, Operating Costs, Training and Workshops for Components 1.2 and 2.3(i), 2.3(iv) and 2.3(v) of the Project	9,000,000	65%	4,800,000	35%
(2) Block Grants for TVET Institutions under Component 2.2(ii) of the Project;	17,900,000	65%	9,600,000	35%
(3) Block Grants for Higher Education Institutions under Component 2.3(ii) and (iii) of the Project	18,800,000	65%	10,200,000	35%
(4) Refund of Preparation Advance	1,000,000	Amount payable pursuant to Section 2.07 of the General Conditions	600,000	Amount payable pursuant to Section 2.07 of the General Conditions
TOTAL AMOUNT	94,300,000		50,800,000	

18. **Financial Reporting and Monitoring:** The FM team of MEPS-INC in close collaboration with other technical units of the MEPS-INC, METP and MESU will prepare a consolidated quarterly IFR. This consolidated IFR will include specific IFRs prepared by METP and each university for designated accounts and the related project account. The format of periodic IFRs to be generated from the financial management system will be developed using the World Bank's Financial Management Practices in WB-financed Investment Operations. This format was agreed during negotiations. The quarterly IFR includes: (i) the

statements of sources and used funds, and utilization of funds per category; (ii) the updated procurement plan; (iii) the physical progress, (iv) expenditure types and implementing agent, showing comparisons with budgets; (v) Designated Account activity statements and explanation notes to the IFR; and (vi) and the summary of missions of internal audit as well as implementation status of the recommendations of internal or external audit and supervision missions. The IFR will be prepared and submitted to IDA, 45 days after the end of each quarter. In compliance with International Accounting Standards and IDA requirements, the Project will produce consolidated annual financial statements. These include: (i) a Balance Sheet that shows Assets and Liabilities; (ii) a Statement of Sources and Uses of Funds showing all the sources of Project funds, expenditures analyzed by Project component and category expenditures; (iii) a Designated Accounts Activity Statement; (iv) an Implementation Report containing a narrative summary of the implementation progress of the Project; (v) a Summary of Withdrawals using SOE (transactions-based disbursement) listing individual withdrawal applications by reference number, date and amount; and (vi) Notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements. The financial statements will be submitted for audit at the end of each year or at any other periods to be stated.

19. **External Auditing:** The project's financial statements and internal control system will be subject to external annual audit by an independent external auditor which will be recruited on the basis of TORs acceptable to IDA. The external auditor will give an opinion on the annual financial statements in accordance with international financial, accounting and auditing standards. In addition to audit reports, the external auditor will also produce a management letter on internal control to improve the accounting controls and compliance with financial covenants under the financing agreement. The project will be required to submit, not later than six months after the end of each fiscal year, the annual audited financial statements of the previous year. In compliance with DRC UCS Report, DRC's Supreme Audit Institution (*Cour des Comptes*) could start being involved in the process of the external auditors' selection and their reports reviewing. In line with the new access to information policy, the project will comply with the disclosure policy of the Bank of audit reports (for instance making available to the public without delay after receipt of all reports final financial audit, including audit reports qualified) and place the information on its official website within one month after acceptance of final report by IDA.

20. **Implementation support Plan:** The World Bank's FM implementation support mission will be consistent with a risk-based approach, and will involve a collaborative approach with the entire Task Team. Based on the current overall residual FM risk, the project will be supervised twice a year to ensure that project FM arrangements still operate well and funds are used for the intended purposes and in an efficient way. A first implementation support mission will be performed six months after project effectiveness. Afterwards, the missions will be scheduled by using the risk based approach model and will include the following actions: (i) monitoring of the FM arrangements during the supervision process at intervals determined by the risk rating assigned to the overall FM Assessment at entry and subsequently during Implementation (in implementation status reports - ISRs); (ii) integrated fiduciary review on key contracts, (iii) review of the IFRs; (iv) review of the audit reports and management letters from the external auditors and follow-up on material accountability issues by engaging with the task team leader, Client, and/or Auditors, including the monitoring of the quality of the audits (internal and external) to ensure that they cover all relevant aspects and provide enough confidence on the appropriate use of funds by recipients; (v) physical supervision on the ground specially; (vi) assistance to build or maintain appropriate financial management capacity; and (vii) transaction reviews of expenditures incurred (reviews undertaken during supervision missions).

21. **Conclusions of the FM Assessment:** The overall residual FM risk at preparation was considered Substantial. The proposed FM arrangements for this project are considered adequate to meet the Bank's minimum fiduciary requirements under OP/BP10.00.

Procurement

General: Procurement rules to be applied

22. **Applicable guidelines**: Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines including: (i) Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits" dated January 2011, revised July 2014; (ii) Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011, revised July 2014; (iii) Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (October 15, 2006 and revised in January 2011); and (iv) the provisions stipulated in the Financing Agreement. The various items under different expenditure categories are described in general below. For each contract to be financed by the Grant and Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The procurement plan would be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Reference to the National Procurement Regulatory Framework

23. For all contracts awarded through NCB method, the Bank may authorize the use of the national institutions and regulations that comprise the law including its texts of application, the institutions set up for the control and regulation and the institutions responsible for procurement activities implementation. The NCB procedures currently in force in DRC deviate slightly from the World Bank Procurement Guidelines NCB procedures for procurement of Works, Goods and services (other than consultants services); thus, they have been already reviewed and appropriate modifications have been proposed to assure economy, efficiency, transparency, and broad consistency with the provisions included in Section I and paragraphs 3.3 and 3.4 of the Bank Procurement Guidelines (refer to the paragraph below).

Requirements for National Competitive Bidding (NCB)

24. The procedures to be followed for NCB shall be those set forth in the Recipient's Procurement Code of April 27, 2010, as revised from time to time in a manner deemed acceptable to the Association, subject, however, to the modifications described in the following paragraphs required for compliance with the Procurement Guidelines:

(a) **Standard Bidding Documents**: All standard bidding documents to be used for the Project under NCB shall be found acceptable to the World Bank before their use during the implementation of Project;

(b) **Eligibility**: Eligibility of bidders and acceptability of their goods and services shall not be based on their nationality and/or their origin; and association with a national firm shall not be a condition for participation in a bidding process. Therefore, except for the ineligibility situations referred to in paragraphs 1.10(a) (i) and 1.10(a) (ii) of the Procurement Guidelines, the eligibility of bidders must be based solely on their qualification, experience and capacity to carry out the contract related to the specific bidding process ;

(c) **Advertising and Bid Preparation Time**: Bidding opportunities shall be advertised at least in a national newspaper of wide circulation and on the website of the Recipient's Procurement Regulator (*Autorité de Régulation des Marchés Publics*) and bidders should be given at least 30 days from the date of invitation to bid or the date of availability of the bidding documents, whichever is later;

(d) **Criteria for Qualification of Bidders**: Qualification criteria shall only concern the bidder's capability and resources to perform the contract taking into account objective and measurable factors. Such criteria for qualification of bidders shall be clearly specified in the bidding documents;

(e) **Bid Evaluation and Contract Award**: A contract shall be awarded to the substantially responsive and lowest evaluated bidder provided that such bidder meets the qualification criteria specified in the bidding documents. No scoring system shall be allowed for the evaluation of bids, and no "blanket" limitation to the number of lots which can be awarded to a bidder shall apply. The criteria for bid evaluation and the contract award conditions shall be clearly specified in the bidding documents;

(f) **Preferences**: No preference shall be given to domestic/regional bidders; to domestically/regionally manufactured goods; and to bidders forming a joint venture with a national firm or proposing national sub-contractors or carrying out economic activities in the territory of the Recipient;

(g) **Publication of Contract Award**: Information on all contract awards shall be published in at least a national newspaper of wide circulation or in the Recipient's Procurement Regulator (*Autorité de Régulation des Marchés Publics*) web-site;

(h) **Fraud and Corruption**: In accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the World Bank's policy to sanction firms or individuals found to have engaged in fraud and corruption as set forth in the Procurement Guidelines;

(i) **Inspection and Audit Rights**: In accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the World Bank's policy with respect to inspection and audit of accounts, records and other documents relating to the bid submission and contract performance;

(j) **Requirement for administrative documents and/or tax clearance certificate:** The bidding documents shall not require foreign bidders to produce any administrative or tax related certificates prior to confirmation of awarding a contract;

(k) **Modifications of a Signed Contract:** Any change in the contract amount which, singly or combined with all previous changes, increases the original contract amount by fifteen (15) percent or more must be done through an amendment to the signed contract instead of signing a new contract.

Items to be procured and the methods to be used

25. **Advertisement**: General Procurement Notice (GPN), Specific Procurement Notices (SPN), Requests for Expression of Interest, and results of the evaluation and contracts award should be published in accordance with advertising provisions in the following guidelines: "Guidelines: Procurement under IBRD Loans and IDA Credits" dated January 2011, revised July 2014; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated January 2011, revised July 2014. For this purpose, the CAT will prepare and submit to the Bank a General Procurement Notice (GPN). Specific Procurement Notice (SPN)

for all goods, non-consulting services and works to be procured under International Competitive Bidding (ICB) and Requests for Expressions of Interests for all consulting services costing the equivalent of US$200,000 and above will be published in "Dg Market", on the Bank's external website, and in the national press, in addition to other media with wide circulation. All other specific procurement notices and other requests for expression of interest shall be published at a minimum in the national press with wide circulation

26. **Procurement of goods, and non-consultancy services**: goods procured under this project include mainly items that will contribute in bettering the work conditions of the implementing agency and institutions to be supported by the project and to strengthen the education system. Non-consultancy services include training and workshops in the region and abroad. Depending on the size of the contracts, goods and non-consultancy services procured under this project will be done either under ICB using Bank procurement rules that include the related SBD or under NCB using National Standard Bidding Documents agreed with or satisfactory to the Bank. Small value goods may be procured under shopping procedures. Direct contracting may be used where necessary if agreed in the procurement plan in accordance with the provisions of paragraph 3.7 to 3.8 of the Procurement Guidelines. The following additional methods may be used where appropriate: Performance Based Procurement, Procurement under Public Private Partnership (PPP) Arrangements.

27. **Procurement of works**: works procured under this project include rehabilitation of science laboratories and small rehabilitation of the surrounding classrooms. Depending on the size of the contracts works procured under this project will be done under NCB using National Standard Bidding Documents agreed with or satisfactory to the Bank. Small value works may be procured under shopping procedures. Direct contracting may be used where necessary if agreed in the procurement plan in accordance with the provisions of paragraph 3.7 to 3.8 of the Procurement Guidelines.

28. **Selection and employment of Consultants:** consultancy services required for the project would cover advisory services, consultancies and technical assistance and studies. The selection method for consultant services will be Quality and Cost Based Selection (QCBS) method whenever possible. Contracts for specialized assignments estimated to cost less than US$200,000 equivalent may be contracted through Consultant Qualification (CQ). The following additional methods may be used where appropriate: Quality Based Selection (QBS); Selection under a Fixed Budget (FB); and Least-Cost Selection (LCS).

- Short lists of consultants for services estimated to cost less than the equivalent of US$100,000 per contract for ordinary services and US$200,000 for design and contract supervision may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. However, if foreign firms express interest, they will not be excluded from consideration.
- Single Source Selection (SSS) may be employed with prior approval of the Bank and will be in accordance with paragraphs 3.8 to 3.11 of the Consultant Guidelines. This category may cover: (i) SSS of consultant services for strategic educational policies.

29. All services of Individual Consultants (IC) will be procured under contracts in accordance with the provisions of paragraphs 5.1 to 5.6 of the Guidelines.

30. **Operating Costs:** Operating costs shall consist of operations and maintenance costs for vehicles, office supplies, communication charges, equipment, utility charges, travel

expenses, per diem and travels costs, training costs, workshops and seminar and associated costs, among others. Operating costs will not include salaries of civil servants.

31. **Training and Workshops.** Training and workshops will be based on capacity needs assessment. Detailed training plans and workshops activities will be developed during project implementation, and included in the project annual plan and budget for Bank's review and approval.

Implementation arrangements for procurement and capacity assessment

1) Implementation arrangements

32. **Guiding principles of the implementation of the procurement**: The Government and the World Bank agreed to mainstream the implementation of the project into the existing legal entities and structures and will be framed by the following principles: (i) each Ministry will be made more responsible and accountable in project implementation with a focus on strengthening country systems; (ii) equity; and (iii) performance-based agreements which make providers accountable for delivering specific results. Procurement activities of the project will be carried out at two levels: (i) at the level of the three Ministries (MEPS-INC, METP and MESU); and (ii) at the level of the institutions governed by PBC and Institutions not governed by PBC (ISPTs). At the level of the three Ministries, procurement activities will be carried out by the procurement unit (*Cellule de Gestion des Projets et des Marchés Publics – CGPMP)* within the two Ministries (MEPS-INC, and MESU) that reports to the General Secretary of the said Ministry. In anticipation of an operational administration within the METP, the procurement activities of the METP will be handled by the CGPMP of MEPS-INC together with the procurement activities of its own Ministry. However, for all procurement activities under the METP, the technical matters and the procurement decisions will be endorsed and approved by the METP. At the level of the institutions governed by PBCs, the procurement activities will be handled by their procurement unit. For the institutions not governed by PBC, procurement activities will be grouped and handled by the CGPMP of MESU.

2) Assessments of the risks and the related mitigation measures

33. An assessment of the capacity of the different procurement units to implement procurement actions for the project was carried out by a World Bank procurement team in February 2015. The assessment reviewed the organizational structure of the procurement units for implementing the procurement under the Project. The assessment found acceptable the procurement capacities of the CGPMP of the MEPS-INC. This CGPMP is currently implementing the procurement activities under the Support to Basic Education Project under the Global Partnership for Education (P131120) and has been reinforced by the procurement staff of the former Education Sector Project (PARSE). But, due to the workload of this project, its procurement capacity will not be sufficient to implement the procurement activities under MEPS-INC and METP.

34. The assessment found that the CGPMP of MESU has currently limited capacity and does not have the required staff with necessary qualifications and experience to handle the project procurement activities. Although the staff has attended procurement training according to the national procurement law its experience is limited to procurement of small value contracts with no experience in procurement according to the World Bank procurement guidelines. The assessment found that almost all the institutions governed by PBC do not have a formal established procurement unit according to the procurement law. Added to this is that

their procurement experiences are limited to unclear and not transparent shopping procedures. The way the shopping procedures are used is not acceptable in a Bank financed project.

35. The key issues and risks concerning procurement for implementation of the project have been identified and include:

a) The administrative system as it operates in practice creates opportunities for informal interference in the procurement process by senior officials – creating opportunities for waste, mismanagement, corruption, collusion and fraud;
b) Government officials likely to be involved in project procurement through tender committees and the national control system ensuring that the rules are respected and able to handle complaints from bidders may not be familiar with procurement procedures according to World Bank guidelines and rules;
c) Control and regulation mechanism according to the provisions of the Country procurement law and its application procedures could delay the procurement process if mandatory reviews are required;
d) CGPMP of MEPS-INC does not have enough capacity to implement additional procurement activities under this project;
e) CGPMP of MESU has no experience to implement procurement activities for this project;
f) The institutions governed by PBC do not have a formal established procurement unit according to the procurement law. They have no experience to implement procurement activities for this project. Procurement experiences are limited to unclear and not transparent shopping procedures. The filing system is not appropriate.

36. The overall unmitigated risk for procurement is **High**. Proposed corrective measures which have been agreed to mitigate the risk are summarized in the following table.

Table 1: Action plan corrective measures

Ref	Tasks	Responsibility	Due date
1	Prepare a specific Project Implementation Manual that will include procurement methods to be used in the project along with their step by step explanation as well as the standard and sample documents to be used for each method.	MEPS-INC, METP and MESU	by Negotiations (done)
2	Organize a launch workshop involving all stakeholders	MEPS-INC, METP and MESU	3 months after effectiveness
3	Identify the root cause of procurement delays at national level and propose appropriate solutions (global)	MEPS-INC and MESU	At project mid-term review
4	Assign exclusively a core staff in the CGPMP dedicated to procurement activities of the project who will be accompanied by technical assistance.	MEPS-INC and MESU	By effectiveness
5	Set up a formal procurement unit within the institutions governed by PBC	MESU	By effectiveness
6	Recruit two individual Consultants with strong experience in World Bank procurement procedures who will provide technical assistance to the two CGPMPs and the procurement units within the institutions governed by PBC. Their main role will be to support, train and coach the two CGPMPs and the procurement units within the institutions governed by PBC.	MEPS-INC, MESU and institutions governed by PBC	Three months after effectiveness
7	Recruit a firm to provide technical assistance (Contract management) of the procurement of works.	MEPS-INC, MESU	Three months after effectiveness

Frequency of Procurement Supervision

37. In addition to the prior procurement review carried out by the Bank, the procurement specialist recommends at least one mission every six months for the first two years and one mission every year for the next years to provide support to the implementation of procurement activities. This support will include not only the organization and functioning of the procurement team of the different procurement units but also the implementation of procurement activities listed in the procurement plan. One post-review of procurement activities will be carried out every year. As agreed with the Government, contracts will be published on the web. Annual compliance verification monitoring will also be carried out by an independent consultant and would aim to:

(a) verify that the procurement and contracting procedures and processes followed for the project were in accordance with the Financing Agreement;

(b) verify technical compliance, physical completion and price competitiveness of each contract in the selected representative sample;

(c) review and comment on contract administration and management issues as dealt with by the implementation entity;

(d) review capacity of the implementation entity in handling procurement efficiently; and

(e) identify improvements in the procurement process in the light of any identified deficiencies.

38. **Contract Management and Expenditure Reports**: As part of the Procurement Management Reports (PMR), the CAT will submit contract management and expenditure information in quarterly reports to the World Bank for the project. The procurement management report will consist of information on procurement of goods, works and consultants' services and compliance with agreed procurement methods. The report will compare procurement's performance against the plan agreed at negotiations and as appropriately updated at the end of each quarter. The report will also provide any information on complaints by bidders, unsatisfactory performance by contractors and any information on contractual disputes if any. These contract management reports will also provide details on payments under each contract, and will use these to ensure no contract over-payments are made or no payments are made to sanctioned entities.

Procurement planning

39. The Government has prepared a Procurement Plan for the first 18 months of the project implementation which provides the basis for the procurement methods. This plan was agreed between the Client and the Bank during negotiations. It will also be available in the project's database and in Bank's external website. The Procurement Plan will be updated in agreement with the Project Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Table 2: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value Threshold (US$)	Procurement Method	Contracts Subject to Prior Review (US$)
1. Works	≥10,000,000	ICB	All
	<10,000,000	NCB	All contracts ≥ 5.000.000
	<200,000	At least three quotations	None
	All amount	Direct contracting	All
2. Goods	≥1,000,000	ICB	All
	<1,000,000	NCB	All contracts ≥500,000
	<500,000	Shopping from all major brands of vehicles dealers or distributors of petroleum products	Shortlist of: (i) vehicles dealers; and (ii) distributors of petroleum products. The technical specifications of vehicles.
	<100,000	Shopping	None
	All amount	Direct contracting	All
3. Services			
	≥200,000		All
Firms	<200,000	CQ	None
	All amount	SSS	All
	≥100,000	IC	All
Individual Cons.	<100,000	IC	None
	All amount	SSS	All
All TORs regardless of the value of the contract are subject to prior review.			

Note: (ICB: international competitive bidding; NCB: national competitive bidding; CQ: Consultants qualification; SSS: Single source selection; IC: individual consultant.

Details of the Procurement Arrangements Involving International Competition

1) Goods and Non Consulting Services

List of main contract packages to be procured following ICB and direct contracting

1	2	3	4	5	6	7	8	9
Ref. No.	**Contract name**	**Estimated Cost USD**	**Procurement Method**	**Prequalifi-cation (Yes/No)**	**Nationale Preference (Yes/No)**	**Review (Priori / Post)**	**Expected Bid Opening Date**	**Com-ment**
1	Provision of 18,000 science kits to 4500 schools	36,000,000	ICB	No	No	Prior	8/29/2015	
2	Provision of 40,500 math, science and biology teacher's handbooks to 13500 teachers in senior secondary school and 170,000 math and science teacher's handbooks to 85000 teachers in junior secondary school	1,052,500	ICB	No	No	Prior	8/29/2015	
3	Equipment and materials for science laboratories	3,600,000	ICB	No	No	Prior	9/03/2015	
4	laboratories Equipment for ISP	3,600,000	ICB	No	No	Prior	9/03/2015	

2) Consulting Services

List of main consulting assignments with short-list of international firms

1	2	3	4	5	6	7
Ref. No.	**Contract name**	**Estimated Cost USD**	**Method**	**Review (Priori / Post)**	**Proposal submit date**	**Comment**
1	TA to support the development of a strategic framework together with an implementation plan for secondary education.	1,200,000	QCBS	prior	12/27/2015	
2	TA to support the upgrading and implementation of math curricula methodologies.	750,000	QCBS	prior	12/02/2015	
3	TA to support the upgrading and implementation of science curricula.	750,000	QCBS	prior	12/02/2015	
4	TA to support the development of practical and user-friendly teacher's math handbook	600,000	QCBS	prior	6/28/2016	
5	TA to support the development of practical and user-friendly teacher's science handbook	600,000	QCBS	prior	6/28/2016	
6	Upgrading of math and science curricula for the TTI	300,000	QCBS	prior	2/26/2016	
7	Development of relevant teaching materials	250,000	QCBS	prior	2/26/2016	
8	TA to develop 6-week intensive in-service training program	400,000	QCBS	prior	2/12/2016	

1	2	3	4	5	6	7
Ref. No.	**Contract name**	**Estimated Cost USD**	**Method**	**Review (Priori / Post)**	**Proposal submit date**	**Comment**
9	TA to develop of a more coherent TVET policy framework	700,000	QCBS	prior	10/26/2015	
10	TA for the development and implementation of TVET curricula and teachers handbook in the three economic priority sectors covered by the project	1,100,000	QCBS	prior	10/15/2015	
11	TA to assist the selection committee of SDPs in the review and selection process	250,000	QCBS	prior	2/27/2016	
12	AT for monitoring progress of the SDP	240,000	QCBS	prior	7/27/2016	
13	TA Review of current curricula and training programs to align them with recent or upcoming developments at the secondary and tertiary levels	500,000	QCBS	prior	7/08/2016	
14	TA to support the development and implementation of a framework with standards and principles of the LMD system	200,000	QCBS	prior	4/26/2016	
15	TA to develop and implement the qualification framework and the establishment of the quality assurance agency	200,000	QCBS	prior	6/16/2016	
16	Technical Unit Managers (2)	792,000	IC	prior	11/30/2015	
17	Accountants (3)	163,440	IC	prior	11/30/2015	
18	ITA Thematic Specialists	252,000	QCBS	prior	11/30/2015	
19	Monitoring and Evaluation Specialist	468,000	IC	prior	01/31/2016	
20	ITA Thematic Specialist in Higher Education	216,000	IC	prior	03/01/2016	
21	Financial management specialist	288,000	IC	prior	11/30/2016	
22	Establish a monitoring and evaluation system	600,000	QCBS	prior	03/1/2016	
23	Delegated Contract Management	1,000,000	QCBS	prior	10/31/2016	
24	Audit of project account	240,000	QCBS	prior	2/06/2016	
25	Midterm evaluation	200,000	IC	prior	11/30201/	
26	End of project evaluation (ICR)	200,000	IC	prior	07/03/2021	

Annex 5: Environmental and Social Safeguards
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

Environment and Safeguard Policies

1. The project was classified as EA Category "B" as its potential adverse impacts associated to projected activities are expected to be minor, site specific and manageable at an acceptable level. Taking into account the nature and the scope of activities, three environmental safeguard policies were triggered in addition to the two social policies. There are OP/PB4.01 (Environmental Assessment), OP/PB4.04 (Natural Habitats), and OP/PB4.11 (Physical Cultural Resources). However, only one safeguard instrument needs to be prepared: an Environmental and Social Management Framework (ESMF). To mitigate potential issues related to Physical Cultural Resources, a specific chapter is included in the ESMF. Nevertheless, the project will not finance activities that affect or involve physical cultural resources.

2. The Environmental and Social Management Framework (ESMF) after its elaboration, has been consulted upon and disclosed in the Democratic Republic of Congo and at the Infoshop on April 23, 2015. The ESMF outlines an environmental and social screening process, including institutional responsibilities for screening, review and clearance, and implementation of mitigation and monitoring measures, for future investments. This screening process consists of (i) an environmental and social screening form to determine potential adverse environmental and social impacts and record the outcome of consultations; (ii) an environmental and social checklist with generic mitigation measures to be adapted to the specific investment; (iii) a summary of the Bank's safeguard policies; (iv) an Environmental and Social Management Plan (ESMP), including environmental monitoring indicators and capacity building activities; (v) Environmental Guidelines for Contractors; and (vi) generic environmental impact assessment terms of reference. It is also designed to serve as a guide for developing Environmental and Social Impact Assessments (ESIAs) and ESMPs as needed.

Social and safeguard policies

3. ***Social Benefits.*** The socio-economic impacts of the proposed project are expected to be largely beneficial in the short, medium, and long term. Immediate benefits will include: improved curricula, capacity building, improved school infrastructure, and improved education facilities. Medium and long term benefits will include, but not be limited to: i) enhanced curricula: stronger literacy and numeracy capacities; ii) gender parity, provisions of basic academic competencies; and iii) access to improved education services.

4. Key beneficiaries consist of: participants in the education sector in the six selected provinces (Kinshasa, Province Oriental, Katanga, Bandundu, Equateur and Kasaï-Occidental): a) secondary education and university students; b) teachers; c) school administrators (directors, pedagogical advisors, inspectors and other officials); d) parents and communities; and e) indigenous people. Junior secondary and university students will enjoy improved curricula. Teachers and school administrators will benefit from capacity building, new employment opportunities and incomes. Parents and communities will benefit from increased opportunities to provide qualified higher education to their children. Indigenous people will have enhanced opportunities to school their children and improve their collective literacy.

5. ***Gender, Poverty and Equity***. The project will benefit all teachers and students irrespective of age, gender or ethnicity. The project is expected to further strengthen the reduction of the gender disparity started by the ongoing Bank financed Basic Education Project. Data from the Basic Education project suggest that: 72 percent of females aged 15 – 24 years attend an educational institution, compared to 78 percent of males. The 2011 Gender Inequality Index suggests that only 10.7 percent of adult women reached secondary or higher levels of education, while the male equivalent was 36.2 percent. Analyses of the socio-economic impacts induced by the gender disparity have revealed that 20 percent of children of mothers without formal education die before they are 5 years old compared to 10 percent of children of mothers with secondary education. Training of teachers should ensure gender equity. Poverty and equity concerns informed the selection of the six project provinces: (Kinshasa, Province Oriental, Katanga, Bandundu, Equateur and Kasaï-Occidental).

6. ***Consultations – Communications*.** The identification, design and preparation of the project has been participatory at several levels: at national level, at provincial level, as well as at the donor level. The results of the public consultations carried out confirm a solid support for the implementation of the project. Furthermore, continuous consultations with local, provincial and national administrations will be part of the project implementation and monitoring strategy. Additional consultations have been carried out in conjunction with the preparation of the safeguards instruments.

7. ***Social Safeguards Policies triggered*.** Involuntary Resettlement **(**OP 4.12) was triggered as component 1.2, may induce land acquisition through rehabilitation of selected school infrastructure. To mitigate potential adverse impacts, a Resettlement Policy Framework (RPF) has been prepared and disclosed, in country and at Info-shop. Indigenous People (OP 4.10), was triggered as four of the project provinces, but Kinshasa, are home to indigenous people. This was identified in the Bank's Strategic Framework for Pygmy Development in DRC. To mitigate potential adverse impacts on indigenous people, an Indigenous Peoples Planning Framework (IPPF) has been prepared and disclosed, in country and at the Infoshop. The social safeguards impacts identified, are not expected to have long term or cumulative effects.

DRC Government Institutional Capacity for Safeguard Policies

8. The government demonstrated its commitment to safeguards compliance, during the preparation and implementation of the Sector Development Project and the Support to Basic Education Project. An ESMF, an RPF and an IPPF were prepared by the client and disclosed prior to appraisal. DRC government's capacity to monitor or implement safeguards polices is, however, weak. Environmental policies and their compliance are governed by the Ministry of Environment and Sustainable Development *(Ministère de l'Environnement, et du Développement Durable – MEDD)*. The MEDD has three departments in charge of environmental monitoring and management: i) *Le Groupe d'Etudes Environnemental du Congo (GEEC)*; ii) *le Centre National d'Information sur l'Environnement* (CNIE) ; and iii) *La Cellule de Réglementation et Contentieux Environnementaux* (CRCE). The GEEC is responsible for safeguards compliance of all projects in the country. The unit is, however, understaffed, has limited capacity despite several donor funded capacity building investments, and still largely relies on donor funds to carry out its field supervisions duties.

9. The TST staff will regularly monitor all safeguards requirements and report in the periodic project progress reports. The Bank's supervision missions will also include environmental and social safeguards specialists. The Financing Agreement requires the

Government to prepare and submit to the Bank for prior approval and disclosure any required ESIAs and ESMPs in accordance with the ESMF.

Annex 6: Implementation Support Plan
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

1. Based on the project's nature, scope and the implementation capacities of the country, the implementation support will be tailored to provide timely support through: (i) day-to-day implementation support; (ii) semi-annual and annual project reviews, and (iii) technical support. The implementation support plan will be reviewed once a year and adapted to ensure that it meets the implementation support needs.

2. **Day-to-day implementation support:** The task team, comprised of staff located at headquarters, based in DRC and other countries, will work seamlessly to provide close and regular monitoring of project progress. With its country knowledge and fruitful dialogue built over the years with the authorities, the task team will be able to generate trust with the counterparts and anticipate potential issues for which solutions will be found on a common ground. During the first year of implementation, monthly meetings will be organized with the CAT, the Technical Support Teams (TST) and the technical Directorates to monitor project progress, with a particular attention to the activities related to curriculum development for the teaching of Math and Science in secondary schools and for the teacher's training programs of the ISP and ISPT.

3. **Semi-annual and annual project reviews**: Twice a year (in January and July), joint-reviews will be held with the Government to assess project progress to coincide with the period of presentation of the project's annual work plans and the performance review of the secondary technical development plans and the higher education institutions PBCs. Financial and procurement reviews will also maintain this regularity in order to maintain a coherent approach in assessing project progress.

4. **Technical support missions:** These will be carried out in specific areas where international expertise is needed to provide quality in the activities and build technical knowledge with the national counterparts. Specific areas of focus include: curriculum development with modern pedagogical and technological approaches, textbooks production and provision, autonomous management of technical education and vocational training centers, and governance of institutions.

Table 1: Focus of support during project implementation

Time	Focus	Skills Needed	Resource Estimate in work-weeks
First twelve months	Development of curricula in mathematics and sciences (MS) for secondary schools	Education specialist (in curriculum)	6
	Development of technical curricula in the priority sectors	Education specialist Technical specialists in the priority sectors	4 2
	Development of curricula in MS for training of secondary teachers in the ISPs	Education specialist (in curriculum)	4
	Development of curricula for training of secondary technical teachers in the ISPTs	Education specialist (in curriculum)	4
	Strategic options for secondary education development	Education economist	3
	Arrangement for twinning with other countries for TVET development	TVET specialist Partnership/organization exchange	5 3
	Assessment of HEIs performance-based contracts	Higher education specialist Labor market economist	6 4
	Team leadership, fiduciary support	Project management, procurement and financial management specialists	20 10 10
12-48 months	Implementation of the renewed curricula: (i) M&S in secondary schools (ii) M&S in ISPs (iii) technical subjects in ISPTs	 Education specialist Education specialist Education specialist	 10 5 3
	Development, implementation and assessment of technical secondary development plans	Education specialist Labor market economist	12 12
	Implementation of the Quality Assurance Agency	Higher education – governance specialist	4
	Team Leadership, fiduciary support	Project management, procurement and financial management specialists	40 20 20

Annex 7: Economic and Financial Analysis
Country: Democratic Republic of Congo

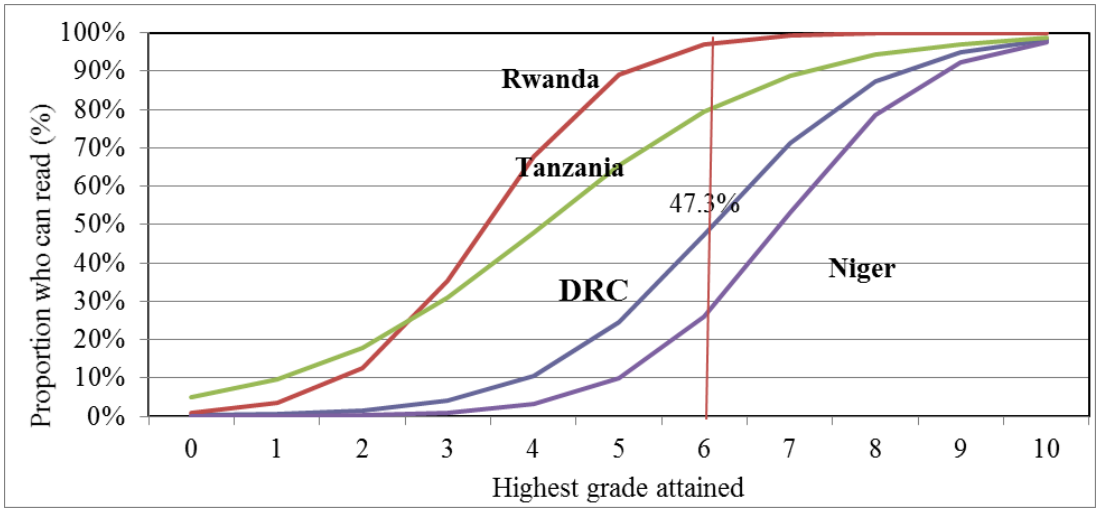
Quality and Relevance of Secondary and Tertiary Education Project (P149233)

I. Introduction

1. The Democratic Republic of Congo ranks among the countries with the absolute lowest human development outcomes in the World. The education system faces many challenges that will require large and sustained investments for years to come, not least due to the large size of the system and demographic pressures. In spite of many challenges, the education system has displayed some very positive trends. With gross enrollment rates in primary education now over 100 percent, access to post-primary education has grown substantially at all levels between 2005 and 2012: the gross enrollment rate increased from 56 to 66 percent for junior secondary, from 38 to 57 percent for senior secondary, and from 4 to 8 percent for tertiary education[9]. These trends were accompanied by an increase in the public financing of education from 7 to 15 percent of total government spending between 2002 and 2012. As a result, educational coverage is now close to the average for Sub-Saharan Africa. Quality of the learning environment and student earning outcomes, however, are weak as evidenced by assessment data, low pass rates on exams, and weak student flow efficiency[10].

2. Figure 1 provides an illustration of the comparatively low quality of education. The figure, which is extracted from the recent Country Status Report, compares the number of years of schooling needed in DRC, as compared with several other SSA countries, in order for most youth to be able to read. In DRC, only about half of youth were literate after six years of schooling according to this measure. Figure 1 also indicates that students in DRC at a given level of schooling are about two years behind students in Tanzania in terms of what they have learned, but 6-12 months ahead of students in Niger.

Figure 1: Proportion of youth who can read by highest educational attainment, circa 2007



Source: Government of DRC: Country Status Report. Draft 2014. Based on analysis of household survey data (age group 15-24).

[9] Based on World Bank staff analysis of household survey data from survey 1-2-3 2004/05 and 2011/12.
[10] RESEN 2014.

II. Project objective

3. The objectives of the project are to: (i) improve the teaching and learning of mathematics and science in general secondary education, and (ii) enhance relevance of TVET in priority sectors in secondary and tertiary education levels.

III. Rationale for public investment, the fiscal impact analysis and bank's value added

4. Despite increasing public financing for education in DRC, households still finance a very large part of the costs of education in DRC.[11] The project will not fundamentally change how education is financed in the participating schools, but will encourage schools to be more transparent about their revenues and how these are used in the financing of the school. Thus, from the perspective of students, there will continue to be cost-sharing of education with households, but students will receive a more relevant education of improved quality, and thus receiving a better return on their investment.

5. The rationale for public investment and for the proposed project is based on several factors: (i) national curricula and other system-level building blocks of a performing national education system (such as regulatory frameworks, government capacity for setting policy and M&E, teacher training system, national assessment systems, etc.) are to a great extent public goods that are not likely to be financed by private sources; (ii) the considerable positive externalities of education to society as a whole; and (iii) the lack of affordability (and lack of credit) of most families to increase their education spending beyond current levels.

6. For component 1, the fiscal impact is related to the increased operating cost at central level to carry on the improved national assessments and other mechanisms put in place under the project. At school level, there will be an increased cost of running laboratories. A mechanism should also be foreseen to periodically replace and replenish the teaching and learning materials at school level. It is not expected that there will be an impact on teacher costs from component 1.

7. For component 2, since the project will not fundamentally change how participating schools are financed, the fiscal impact is expected to be small. Yet, the project may lead to a greater student intake and completion in participating schools, which could put pressure on budgets. Also, new laboratories/facilities may increase operating costs.

8. The World Bank has been engaged in the education sector in DRC for a significant period of time, working closely with the development partners and the government. Its value added for financing this project lies in the technical assistance which the Bank can provide to support the project's design and implementation. This is particularly important given the project's focus on quality and relevance, or "software", rather than on school inputs or other more simple investments. With the objective to supply quality and relevance of general secondary education and technical education, project interventions will be associated with areas that go beyond education. With its organizational structure, the World Bank is positioned to provide world-class and integrated solutions to support the government in achieving the project development objective. The preparation of the project has already benefited from much of the World Bank's analytical work. During implementation, in addition to the World Bank's global practice in education, knowledge of global practices in agriculture, energy and extractive industries will be drawn to support the government in the development of curricula that can

[11] Other sources of financing include donations (such as from the international community) and self-generating revenues in the case of the technical schools.

respond to the labor market needs in the related sectors. Besides, the World Bank's cross-cutting practices in jobs, fragility and conflict as well as public private partnership will promote a holistic coverage to the project development objective. The World Bank is also positioned to provide evidence-based solutions to the development of policies in general secondary education and technical education. It will facilitate twinning arrangements with other countries having succeeded in similar endeavors so that the government can learn from the experiences.

IV. Economic analysis

9. Table 1 provides an overview of the project components and main expected benefits.

Table 1: Key project components, costs, and economic benefits expected as a result

Component of project	Description	Allocation of project budget/direct beneficiaries	Benefits (monetary and non-monetary) as compared with no project	
			Within project period	Long term
Component 1	Improve the teaching and learning of mathematics and science in general secondary education	US$101.2 million About 2.1 million students in general secondary (and future cohorts)	Improved learning achievement in math and science for students in general secondary education Beginning to build a pipeline of students with improved math and science skills to enroll in TVET and other post-secondary and tertiary levels, or to enter the labor market	Higher labor market productivity/average earnings in adulthood for students with improved math and science skills (and higher GDP growth) Improved ability to reap the benefits of technology and science Sustainable system improvement to benefit future student cohorts Potentially improved completion and retention rates (more efficient system) Healthier families Reduction in risk of conflict in society
Component 2	Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels	US$ 86.8 million About 340,000 students in secondary TVET schools will benefit from better learning conditions About 25,000 students in tertiary TVET institutions will benefit from newly developed vocational programs About 4,300 students in the 6 ISPs will benefit from improved learning conditions	More relevant technical and vocational education and training system More graduates with relevant skills Skills bottlenecks for growth reduced in priority growth sectors	Higher labor market productivity/average earnings in adulthood for students (and higher GDP growth) Bottlenecks to growth/productivity/job creation in priority growth sectors Job creation Healthier families Reduction in risk of conflict in society
Component 3	Project coordination, monitoring and evaluation	US$ 12 million	Project well-managed and coordinated. Synergies with other reforms/investments realized.	

10. Component 1: Improve the teaching and learning of mathematics and science in general secondary education. Through this component, the project addresses urgent issues of quality and relevance in general secondary education, which is comprised of a 2-year junior secondary cycle (*'tronc commun'*) and the 4-year senior secondary school cycle. By strengthening the curriculum in mathematics and science, the objective is to improve critical skills of youth in areas that have been identified as important for economic growth in DRC. The choice of mathematics and science is also founded in a desire for a more modern curriculum in line with 21st century foundational skills needs. Like many governments across the world, DRC is recognizing the need for attracting more youth into science and technology fields, which build substantially on numeracy skills.

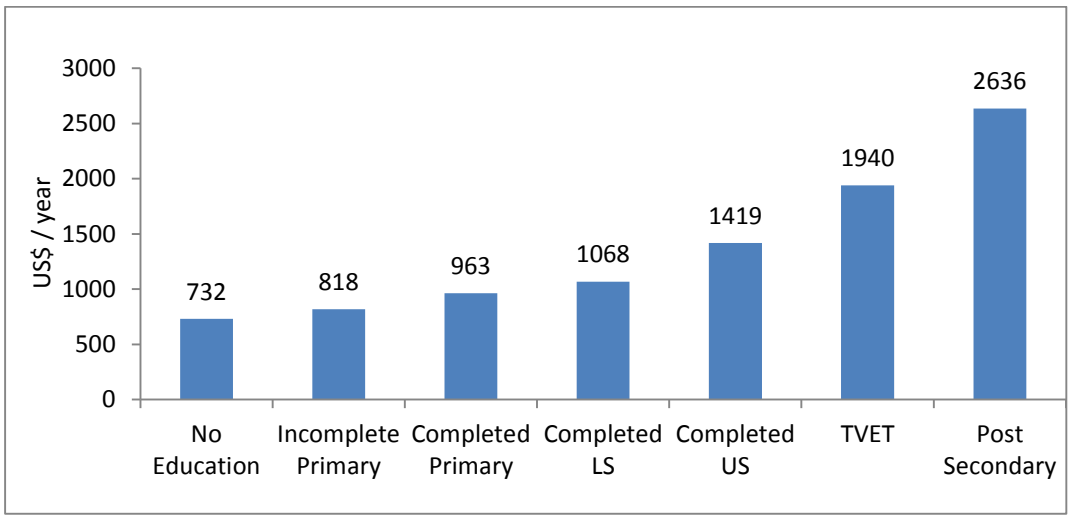
11. Beneficiaries: The beneficiaries include an estimated 2.1 million students at the secondary level (i.e., the majority of students in enrolled in general secondary education in DRC). Students will benefit from an improved curriculum, from teachers with improved subject-matter and teaching skills (trained through the project) and who have improved teaching tools (teacher's handbooks) in mathematics and science. A reduced number of students will benefit from science laboratories to be installed in select schools. The enhanced curriculum will be available to future cohorts of students also. The costs include the project costs estimated at US$ 101.2 million.

12. Benefits/link with higher earnings: The literature linking cognitive skills with economic growth of nations is well-known (Hanushek and Wossman 2007). The international literature broadly associates one year of average learning gains with an increase of 10 percent in lifetime earnings. In DRC, recent WB staff estimates based on the 2012 Demographic and Health Survey indicate that the returns to education in DRC may be lower (except in the case of post-secondary/tertiary education), at around 8 percent increase in lifetime earning per additional year of schooling.

13. Earnings data in DRC: As shown in Figure 2 based on 2011/12 household survey data, average annual earnings do consistently increase with higher levels of education in DRC. Particularly upper secondary education, TVET and post-secondary education lead to higher average earnings in the labor market in DRC, while returns to education are quite low for primary and lower secondary education. World Bank 2014 found that the returns to primary and lower secondary education in DRC are low even compared with other SSA countries.[12]

[12] World Bank (2014): Skills and Employment in the Democratic Republic of the Congo: A Review of Recent Trends in the Labor Market. A Background Paper to DRCs Country Economic Memorandum.

Figure 2: Average annual earnings by highest of education, DRC 2011/12



Source: World Bank staff analysis of household survey 1-2-3 HBS 2011/2012 based on ages 15-64.

14. Estimation of expected learning gains as a result of reform. For the purpose of the economic analysis, it is estimated that the reform in general secondary has the potential to lead to a learning gain equivalent to one academic quarter (a fourth of an academic year). Given the gap between countries' learning shown in Figure 1, this seems to be a conservative assumption. If a year of general secondary leads to an 8 percent increase in lifetime earnings in DRC (another conservative assumption), it follows that one quarter of learning is roughly equivalent to a 2 percent increase in lifetime earnings. Table 2 shows the results of the economic analysis given these assumptions and finds that the economic benefit of a strengthened curriculum and student orientation could be very considerable, particularly given the high number of students enrolled at that level. If lifetime earnings increase by 2 percent (compared with current average lifetime earnings of junior secondary), the total economic benefit could be as much as US$714 million. It should be noted that the results in Table 2 are conservative estimates, since subsequent cohorts of students in secondary education after the project period would also benefit from the improved curriculum.

Table 2: Estimation of costs and economic benefits of improving the teaching and learning of math and science in general secondary education

Level of education	Assumption about learning gain as a result of reform	Increase in lifetime earnings per student (in percent/2015 US$)	Total increase in lifetime earnings (in 2015 US$)
General secondary	Learning gain equivalent to one academic quarter for 2,100,000 students	2 percent/US$ 340	US$ 714 million

15. As indicated in Table 1, there are potentially also other benefits of an improved curriculum in secondary education, including the building of a pipeline of students for subsequent levels of education and for the labor market with stronger skills in mathematics and science. Further, there could also be considerable non-monetary benefits associated with the reform, through more efficient student flow and possibly higher completion rates. Higher completion/attainment rates are associated with a variety of benefits to families, including lowering their risk of poverty, and improving health and other human development outcomes.

Component 2: Enhance the relevance of TVET in priority sectors at secondary and tertiary education levels

16. Component 2 will intervene both at system level and institution level:

- *At the system level*: develop and introduce an enabling regulatory framework with a number of critical reforms that establish the foundations for the development of a demand-driven TVET system. About 340,000 students will benefit from this system-level regulatory reform.

- *At the institution level*: support the strengthening of the governance and relevance of TVET in the priority sectors for the economy in a number of public secondary schools and tertiary institutions, using principles that will enable the institutions to assume the reforms.

17. The economic analysis focuses on the two main institution-level activities of Component 2: (a) Block grants financing comprehensive school development plans for 15 public secondary TVET schools to directly benefit an estimated 45,000 students over the course of the project; and; (b) Performance-based contracts with tertiary-level TVET institutions for the development of new vocational programs to directly benefit an estimated 25,000 students.

Block grants to 15 secondary TVET schools

18. The project will finance the development and implementation of a comprehensive development plan for each of the 15 secondary TVET schools. The investments have the potential to substantially improve the quality and relevance of training and the operating efficiency of the schools. Average enrollment in each school is around 1,400 students, and with around 500 new students enrolling every year, the project can directly benefit around 3,000 students at each school over the project period (not counting that the improvements will also potentially benefit students enrolling after the project period). The unit cost for these investments is about US$3 million per school or around US$1000 per student.

19. Figure 2 indicates that the labor market in DRC does reward TVET skills, with average annual earnings at around US$1,940 per year. Due to the substantial investment per student in these schools, and the potential transformative effect of such a comprehensive approach, the economic analysis has modeled a 5% increase in lifetime earnings of each student beneficiary as a result of the project. Under these assumptions, the economic benefit would amount to about US$70 million for the 15 schools (Table 3).

Table 3: Estimation of costs and economic benefits of restructuring 15 public secondary TVET schools

	5 percent increase in lifetime earnings (US$)	Net present value of increased lifetime earnings (discounted to 2015 US$ at a 3 percent discount rate)	
		Per student	All students
45,000 students who benefit from improved quality and relevance	US$98 / year for 30 years	US$1,554	US$69.9 million

Development of short institution-specific programs in response to labor market needs through performance-based contracting

20. The subcomponent will finance the development of new academic programs through performance-based contracts with higher education institutions. The programs will be at the undergraduate level and their duration will not exceed three years. They will be closely aligned with labor market needs. A number of universities, faculties and institutes have been pre-identified (see Table 4). These have a current enrollment of 17,703 students.

Table 4: Students in Selected Institutions (Academic Year 2013-2014)

	Student enrollments
Agriculture and environment :	*3,584*
Université de Kinshasa	1,905
Faculté d'Agronomie	1,035
Faculté de Pharmacie	870
Institut Facultaire d'Agronomie de Yangambi	779
Université de Lubumbashi	174
Faculté de Médecine Vétérinaire	174
Université de Kisangani	726
Centre de Biodiversité et Environnement	726
Mining and oil :	*3,982*
Université de Kinshasa	3,099
Faculté des Sciences, option : Géologie	758
Faculté de Pétrole et Gaz	2,341
Université de Lubumbashi	883
Ecole Supérieur de Génie Industriel	883
Infrastructure :	*10,137*
Université de Kinshasa	1,273
Faculté de Polytechnique	1,273
Institut Supérieur des Techniques Appliquées de Kinshasa	4,746
Institut National du Bâtiment et des Travaux Publics de Kinshasa	4,118
Total	17,703

Source: Administrative data.

21. As shown in Table 5, the economic analysis modeled a situation of 25,000 youth who benefit from the new academic programs as a result of the project. The economic analysis assumes that these youth would have attended regular programs in the absence of the project, and that their participation in the new programs yields a benefit corresponding to a 5 percent increase in lifetime earnings compared with the earnings expected after participating in the regular programs. In this case, the net present value of the economic benefit would be US$52.5 million, compared with an investment of US$42 million. Further, the system-level reforms will reinforce the impact of the institution-specific investments. As for the Component 1, there could also be substantial non-economic benefits of the investments in Component 2, some of which are indicated in Table 1.

Table 5: Estimation of costs and benefit of new academic programs in higher education

	5 percent increase in lifetime earnings (US$)	Net present value of increased lifetime earnings (discounted to 2015 US$ at a 3 percent discount rate)	
		Per student	All students
25,000 students who benefit from improved relevance/new programs	US$132 / year for 30 years	US$2,100	US$52.5 million

Annex 8: Secondary and Tertiary Education System
Country: Democratic Republic of Congo

Quality and Relevance of Secondary and Tertiary Education Project (P149233)

Challenges Facing the Education System

1. The current education system was initially designed to instruct a small privileged group of students. The system, therefore, urgently needs to be revitalized in order to provide the large number of youth with more relevant knowledge and skills needed by the (local) labor market in a context of a changing society.

2. Specifically, reforms to secondary education in DRC need to focus on the following:

3. *Removing barriers to secondary education*. The new (draft) *Loi-Cadre de l'Enseignement National* (January 2014) establishes a basic education cycle of 8 years that integrates junior secondary with primary. This is expected to: (i) increase significantly the number of students that have access to junior secondary education; and (ii) subsequently broaden and reinforce the human capital base. However, the new Law explicitly states that the cycle should be fee-free. Evidence shows that the fee abolition policy for primary education is not effective; that households throughout DRC continue to contribute to teacher salary top-ups across all primary grades countrywide, and that the *Test national de fin d'études primaires* (TENAFEP) fee (primary exit exam) constitutes a significant barrier for a fluid transition to the secondary level of education.

4. *Improving the quality and relevancy of the teaching and learning process.* First, it is clear that the quality of secondary education is in large part a result of the level of the learning achievement of primary school leavers. Analysis of the pedagogical stream (*humanités pédagogiques*) reveals an inefficient and unproductive system for training qualified and capable primary teachers. In addition, low pay and limited career advancement opportunities do not attract or retain teachers. Second, secondary curricula and examination systems have become irrelevant. Some have not been revised for decades while others (in particular those used in the technical stream) entirely depend on the ingenuity of the teacher (and in some instances, there is no curriculum at all). Some ongoing initiatives (VVOB for agriculture and CTB for TVET Strategy) may need to be accelerated and/or replicated.

5. *Undertaking structural reforms to ensure a more efficient use of available resources.* Targeted structural reforms and subsequent efficiency gains are likely to mobilize part of the resources required to finance the reform agenda; these include: (i) a return to a rigorous school mapping across the education system (and stop the mushrooming of schools and offices); (ii) a reform of the pedagogical stream (less and better schools to produce capable teachers); and (iii) a complete rethink of the technical and vocational stream. The latter is likely to include the development of relevant curricula in general senior secondary schools (*cycle long*) or occupation-specific training modules in TVET institutions (*cycle court*); targeted support to less but more performing TVET schools; an optimal use of teachers (teaching load, pupil-to-teacher ratios and more efficient teacher deployment); priority-setting for appropriate labor market orientation and employment preparation in line with national development policies, etc. In addition, there is a need to: (i) develop a National Vocational Qualification and Certification Framework for formal, non-formal, informal and industrial routes (that builds on the existing model developed by the Interministerial Committee (IC) with support from APEFE/CTB); and (ii) implement a harmonized sub-sector strategy involving all Ministries that cover vocational

and technical training, alongside representatives of the private sector (and put a halt to fragmented and parallel TVET programs).

Current Structure of the Education System

6. **In DRC, secondary education mainly consists of a *cycle court* and a *cycle long***. The first two years (formerly called *cycle d'orientation* (CO); today it is called *tronc commun*) are common to all streams. The *cycle court professionnel* offers 38 options that lead directly to a *Brevet d'Aptitude Professionnelle (BAP*); the *cycle long* (called *humanités*) has three streams: general, pedagogical and technical that all give access to higher education (university or non-university). The 'general' and 'pedagogical' streams both organize 5 options; the stream 'technical' currently offers a total of 39 options. The system still contains some 'relics from the past' such as the *Cycle court Arts et Métiers* (Arts and Crafts), formerly called *Métiers féminins*, still operational in a couple of provinces with some 1,500 students (2012-13), and certified by a Certificate of professional competence (*Certificat d'Aptitude Professionnelle - CAP*) (Diagram 1). The current DRC curriculum has a traditional 6-2-4 structure: 6 years of primary, 2 years of junior secondary and 4 years of senior secondary

7. **DRC's senior non-TVET stream is composed of two cycles: a general (*cycle général*) and a pedagogical stream (*cycle normal*).** The general stream has two options (literary and scientific) and is a heritage of the former Belgian system (called *humanités* or 'humanities' from Latin *studia humanitatis*) with strong elitist-oriented components (e.g., classical studies). The pedagogical stream dates from the 1960s when it was part of a government strategy to address the critical shortage of qualified Congolese teachers after Independence; it is mainly composed of a general option (called *humanités pédagogiques*) and a 'normal' option that is a relic of the unsuccessful 1984 reform[13] that started piloting normal schools (*écoles normales pilotes*) in the towns of Kinshasa and Kisangani. The pedagogical option mainly prepares primary school teachers that graduate with a D6 diploma (*Diplôme d'Etat* – having completed 6 years of secondary). In 2013, half of secondary students graduated from this pedagogical section (estimated at some 280,000 students), which raises concerns about the efficiency and quality of pre-service primary teacher preparation. The same stream also organizes two additional minor options (*éducation physique* for future gym teachers and *pédagogie maternelle/préscolaire* for early years teachers); both options face similar challenges of efficiency (with, at country level, only 56 and 42 graduates, respectively, in 2013) (Diagram 2).

8. **The recently promulgated *National Education Law* (2014) adopts an 8-2-2 structure for primary and secondary education.** The new structure includes 8 years of basic education, 2 years of junior secondary and 2 years of senior secondary. This reform is in line with the policies adopted in many SSA countries that seek to better align national curricula to the changing global economy in terms of providing relevant knowledge and skills beyond the basic education cycle. If carefully planned, financed and implemented, this change is expected to lead to a deep transformation of both the secondary curriculum and the governance of the system; including: (i) a better alignment of secondary education with the new demands of the economy; (ii) subsequent curriculum change and increased flexibility within the existing secondary programs to provide students with a range of relevant study options; and (iii) the development of a better articulated framework for TVET and non-TVET secondary education including the financial sustainability for such a reform. However, it needs to be highlighted

[13] The *National Commission for Reform* (CNR) was unable to implement the reform agenda. First-hand witnesses from that period report weak technical capacity of the CNR and the absence of financial resources to support the reform program (Correspondence and assessment reports written by Sister Scaillet in 1984-6).

that one of the risks of extending basic education from 6 to 8 years is the potential for misunderstanding that (in light of a weak performing primary system) more time will be allotted to develop the same skills (basic numeracy and literacy) that were expected during the 6 year period. It should, therefore, be clearly highlighted that the two additional years should serve to strengthen the human capital on the premise that learners have the basic skills for further development.

Diagram 1. Structure of secondary education in DRC
(as of June 2014)

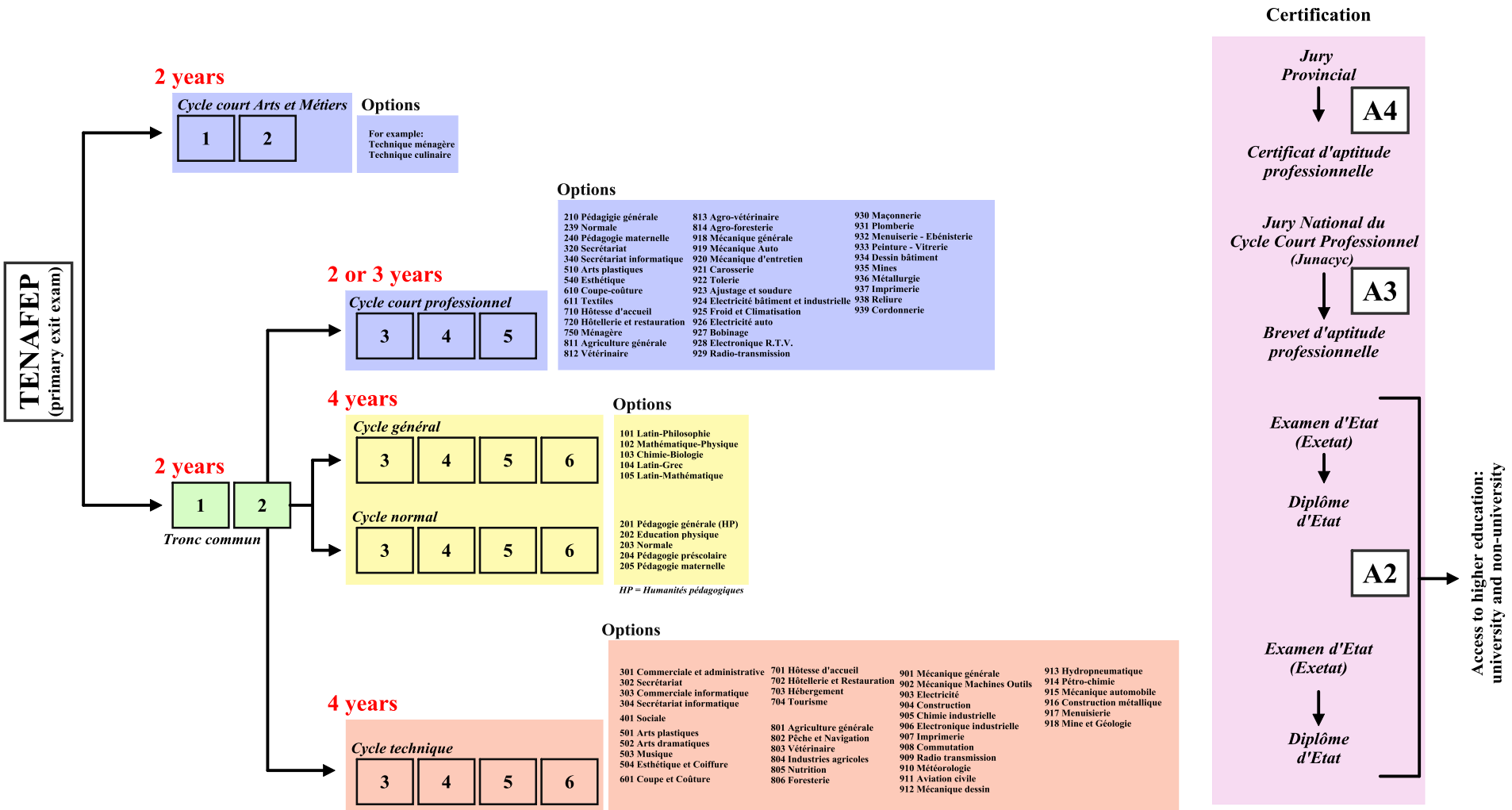
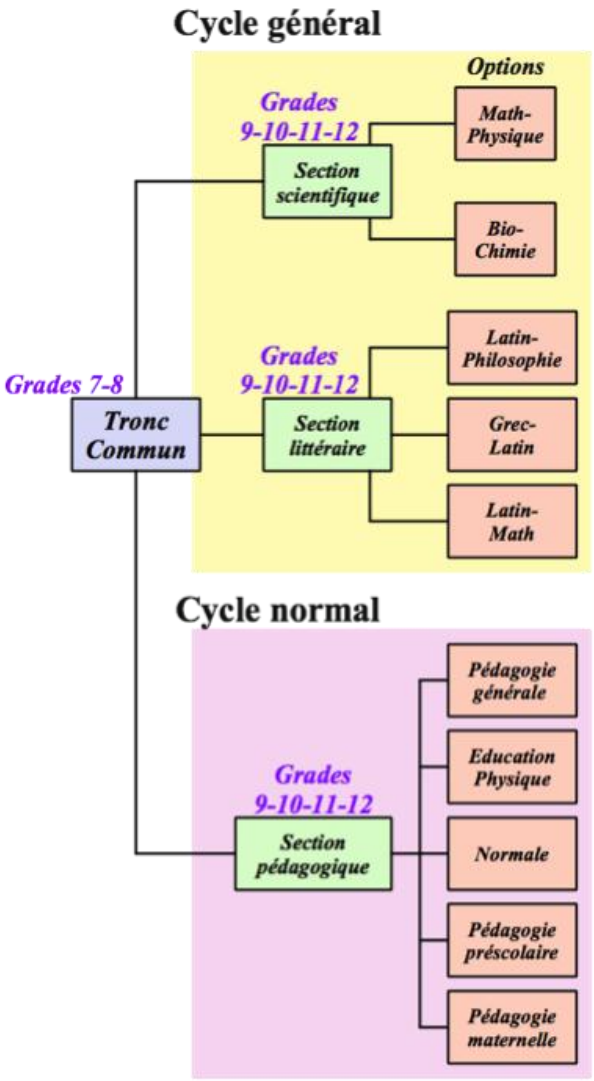


Diagram 2. Structure of non-TVET secondary



9. **The public education system is characterized by a hybrid architecture in which faith-based organizations play an important role and exercise a high level of *de facto* autonomy**. Since 1977, the State (MEPSP) relies on two major pillars to enforce its authority: one is managed by the State itself (*écoles non-conventionnées*, also called *écoles officielles*); the other is run by faith-based groups (*écoles conventionnées*). Initially composed of Catholic, Protestant, Kimbanguist and Islamic schools, today they are assembled under the umbrella of the *Association des Coordinateurs Nationaux des Ecoles conventionnées* (ACNEC) that gathers 15 different "school networks". Faith-based groups manage 76% of all secondary public schools (2012/13) in which the part of the Protestants (composed of more than 45 different communities) is close to 42% (but 37% when looking at student enrollment). A mere 2% of secondary students are currently enrolled in private schools, 41% of which in the capital Kinshasa. Faith-based groups continue to strengthen their strategic position (76.6% of enrolled secondary students today compared to 74.4% in 2007/8), operating as *de facto* autonomous actors within an increasingly deconcentrated education system (Figures 1-2). It is of importance to highlight that these faith-based groups are part of the public education system and, as such, benefit from public financing for the salaries of their teachers and the operating costs of their schools and administrative offices.

Figure 1. Number of public secondary schools (2012/13) (disaggregated by 'network')

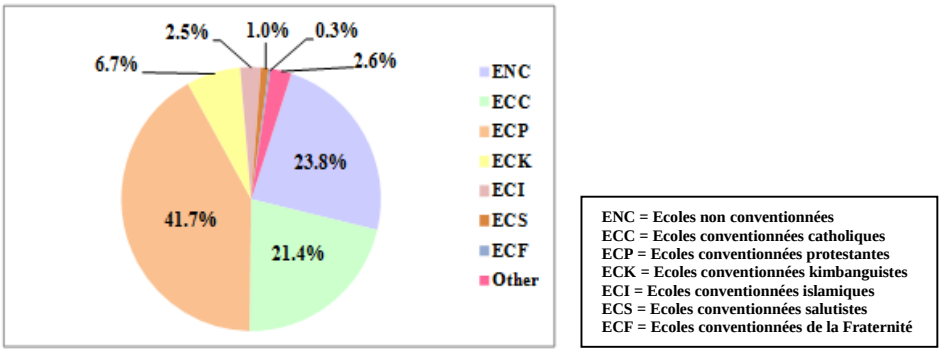
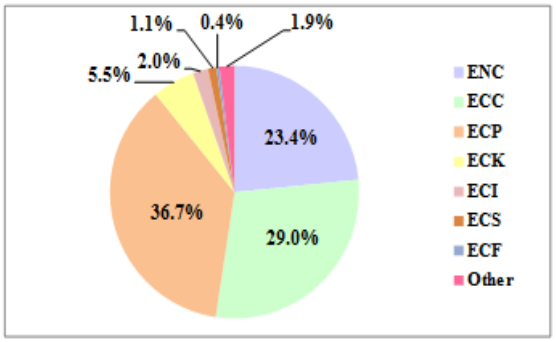


Figure 2. Number of students in public secondary schools (disaggregated by 'network')



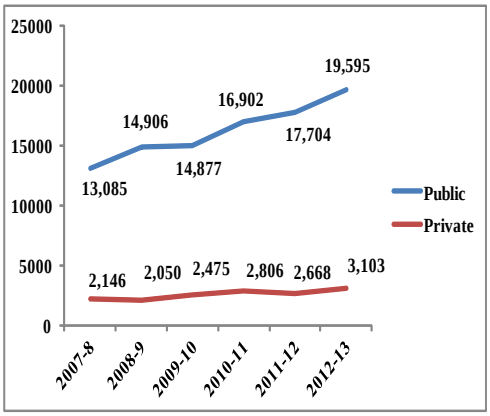
10. **The dimensions of DRC primary and secondary education sector are gigantic and likewise proportionate to the challenges.** It is important to rightly measure the proportions of DRC education system and related scope of challenges: 60,000 schools, more than half a million teachers and some 15 million students (Tables 1-4). Issues of access, quality, and governance can only be addressed with significant institutional, technical and financial resources. The dimensions of the sector, its complex institutional architecture and decennia of neglect require structural reform policies to make the system more cost-efficient, performing and sustainable.

Table 1. Dimensions of primary and secondary education

	Schools		Teachers		Students	
Preprimary	**1.640**	**3%**	**5.221**	**1%**	**139.241**	**1%**
Primary	**38.253**	**64%**	**303.240**	**55%**	**11.191.360**	**76%**
Secondary	**19.595**	**33%**	**241.728**	**44%**	**3.336.574**	**23%**
Total	**59.488**		**550.189**		**14.667.175**	

Table 2. Number of public and private secondary schools (2007-13)

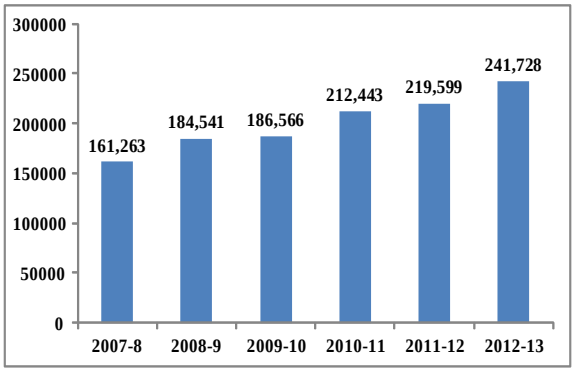
	2007-8		2008-9		2009-10		2010-11		2011-12		2012-13	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Kinshasa	624	1,043	647	872	670	1,019	730	1,231	761	1,197	753	1,319
Bas-Congo	838	110	852	94	864	98	915	108	1,007	123	1,085	139
Bandundu	3,183	45	3,235	44	3,240	37	3,679	35	4,117	33	4,864	38
Equateur	1,902	69	2,078	60	2,029	87	2,306	106	2,372	92	2,529	107
Orientale Prov	1,246	76	1,468	120	1,513	115	1,788	157	1,488	125	1,548	170
Nord-Kivu	944	84	1,008	96	1,010	143	1,093	176	1,135	175	1,203	180
Sud-Kivu	770	97	986	53	901	140	1,097	176	1,062	162	1,134	233
Maniema	416	4	540	13	544	7	899	15	799	20	832	40
Katanga	1,213	306	1,504	403	1,469	499	1,439	405	1,830	403	2,216	230
Kasaï-Occidental	1,055	88	1,358	114	1,483	128	1,717	149	1,783	130	2,110	159
Kasaï-Oriental	894	224	1,201	181	1,183	202	1,239	248	1,350	208	1,321	488
Totals	13,085	2,146	14,877	2,050	14,906	2,475	16,902	2,806	17,704	2,668	19,595	3,103



Source: Statistics MEPSP

Table 3. Number of teachers in public secondary schools (2007-13)

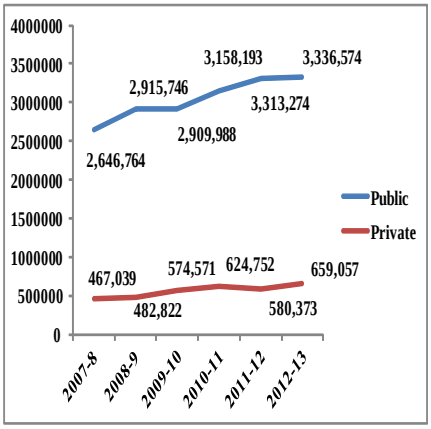
	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13
Kinshasa	12,911	13,086	13,798	14,756	14,870	14,377
Bas-Congo	11,616	11,687	12,147	12,827	14,723	15,815
Bandundu	45,282	45,560	45,359	52,862	59,236	70,118
Equateur	18,427	21,922	20,703	24,400	24,707	26,472
Orientale Province	12,614	16,242	16,688	20,250	16,045	17,372
Nord-Kivu	11,989	12,684	13,909	14,875	15,529	16,130
Sud-Kivu	9,049	11,857	10,821	13,059	12,358	12,871
Maniema	4,180	5,929	6,244	10,170	8,793	9,349
Katanga	13,271	16,794	16,363	16,423	19,420	22,124
Kasaï-Occidental	10,807	14,653	16,090	18,285	18,616	21,669
Kasaï-Oriental	11,117	14,127	14,444	14,536	15,302	15,431
Totals	161,263	184,541	186,566	212,443	219,599	241,728



Source: Statistics MEPSP

Table 4. Number of students in public/private secondary schools (2007-13)

	2007-8		2008-9		2009-10		2010-11		2011-12		2012-13	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Kinshasa	279,542	231,980	287,246	210,602	281,270	244,911	291,401	275,971	276,293	262,271	268,195	273,821
Bas-Congo	163,972	17,694	167,327	15,586	172,961	15,937	189,226	17,197	213,096	18,350	216,307	21,557
Bandundu	501,998	4,890	495,014	4,659	481,705	4,432	536,851	5,175	664,071	4,719	662,545	4,465
Equateur	269,346	12,104	293,733	9,689	289,843	13,830	319,981	17,022	338,699	14,348	331,709	18,848
Orientale Prov	237,619	15,094	288,803	23,349	282,844	26,958	320,521	36,749	251,745	28,284	263,086	35,042
Nord-Kivu	233,719	17,550	249,079	20,364	283,948	28,458	293,779	37,889	289,972	36,206	289,209	37,303
Sud-Kivu	207,733	20,254	240,756	10,307	219,622	30,637	247,751	34,634	233,970	31,578	229,145	38,092
Maniema	70,226	405	95,101	614	93,656	824	151,042	2,003	119,959	3,844	116,066	7,657
Katanga	286,250	85,320	328,470	127,394	324,434	143,126	295,803	114,566	359,658	113,090	414,324	130,280
Kasaï-Occidental	183,572	13,949	227,231	18,928	246,060	19,470	269,217	23,756	294,063	19,667	293,598	22,461
Kasaï-Oriental	212,787	47,799	242,986	41,330	233,545	45,988	242,621	59,790	271,748	48,016	252,390	69,531
Totals	2,646,764	467,039	2,915,746	482,822	2,909,888	574,571	3,158,193	624,752	3,313,274	580,373	3,336,574	659,057



Source: Statistics MEPSP

11. **The secondary education system continues to grow dramatically**. Analysis indicates the disproportionate growth of schools compared to enrollment growth: the number of schools has grown almost as twice as fast as the number of students (Table 5). This finding is corroborated by the steady decrease of the student-teacher ratio (from 18 to 15) between school year 2007/8 and 2012/13 (Table 6). Following DRC standards and policy, the minimum class size is 25 students; the maximum 50. This impressive but likely inefficient expansion of the system is mainly due to: (i) the presence of multiple actors (many of them faith-based) that have authority for opening schools and recruiting teachers; (ii) non-compliance with rigorous school mapping (e.g., competition between religious streams, political considerations, etc.); and (iii) accreditation of schools that are not budgeted.

Table 5. Growth of the secondary system (2001-2013)

		2001-2	Growth	2007-8	Growth	2012-13
Schools	Public *Non conventionné*	1,761	96.3%	3,456	34.8%	4,659
	Public *Conventionné*	5,269	82.7%	9,629	55.1%	14,936
	Private	1,227	74.9%	2,146	44.6%	3,103
Teachers	Public *Non conventionné*	23,747	76.1%	41,822	38.5%	57,933
	Public *Conventionné*	70,870	68.5%	119,441	53.9%	183,795
	Private	15,784	74.5%	27,545	43.8%	39,596
Students	Public *Non conventionné*	353,452	92.2%	679,240	15.0%	780,999
	Public *Conventionné*	1,045,861	88.1%	1,967,524	29.9%	2,555,575
	Private	216,131	116.1%	467,039	41.1%	659,057

Source: CSR 2005; Statistics MEPSP

Table 6. Student-teacher ratio in public secondary schools (2007-2013)

	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13
Kinshasa	22	22	20	20	19	19
Bas-Congo	14	14	14	15	14	14
Bandundu	11	11	11	10	11	9
Equateur	15	13	14	13	14	13
Orientale Province	19	18	17	16	16	15
Nord-Kivu	19	20	20	20	19	18
Sud-Kivu	23	20	20	19	19	18
Maniema	17	16	15	15	14	12
Katanga	22	20	20	18	19	19
Kasaï-Occidental	17	16	15	15	16	14
Kasaï-Oriental	19	17	16	17	18	16
Average	18	17	17	16	16	15

Source: Computed from Statistics MEPSP

Major risks related to uncontrolled growth

12. **Half of the total number of secondary teachers and schools are currently not on payroll.** It is estimated that about 52 percent of secondary teachers presently working in public schools are not on payroll (*non mécanisés* and *non payés*); 51 percent of the secondary schools are not budgeted (meaning all teachers from these schools are not on payroll but are paid by households). Calculated on the basis of the net salary (May 2014), the regularization of secondary teachers would correspond to an annual cost of more than US$10 million (Table 7-8)

Table 7. Number of teachers/schools not on payroll (as of May 2014)

	Number of teachers	On payroll	Not on payroll	Number of schools	On payroll	Not on payroll	Not on payroll (%) Teachers	Schools
Kinshasa	14,377	18,579	-4,202	753	596	157	-29.2%	20.8%
Bas-Congo	15,815	10,450	5,365	1,085	821	264	33.9%	24.3%
Bandundu	70,118	26,597	43,521	4,864	2,437	2,427	62.1%	49.9%
Equateur	26,472	9,271	17,201	2,529	1,128	1,401	65.0%	55.4%
Orientale Prov	17,372	7,749	9,623	1,548	714	834	55.4%	53.9%
Nord-Kivu	16,130	6,549	9,581	1,203	506	697	59.4%	57.9%
Sud-Kivu	12,871	7,344	5,527	1,134	573	561	42.9%	49.5%
Maniema	9,349	3,891	5,458	832	435	397	58.4%	47.7%
Katanga	22,124	8,142	13,982	2,216	807	1,409	63.2%	63.6%
Kasaï-Occidental	21,669	10,021	11,648	2,110	940	1,170	53.8%	55.5%
Kasaï-Oriental	15,431	6,657	8,774	1,321	697	624	56.9%	47.2%
Total	241,728	115,250	126,478	19,595	9,654	9,941	52.3%	50.7%

Source: SECOPE; Statistics MEPSP

Table 8. Monthly salary of secondary teachers (Payroll of May 2014)

Average monthly salary secondary teacher	
Salary envelope May 2014:	9,676,359,209
Total number of school-based staff:	115,250
Average gross teacher salary (CDF)	83,960
Average gross teacher salary (USD)	90
Income tax (IPR) (*Impôt professionnel sur les rénumérations*)	
On salary envelope May 2014:	577,980,500
Average per teacher (CDF)	5,015
Average net teacher salary (CDF)	78,945
Average net teacher salary (USD)	85

Source: Computed from payroll SECOPE

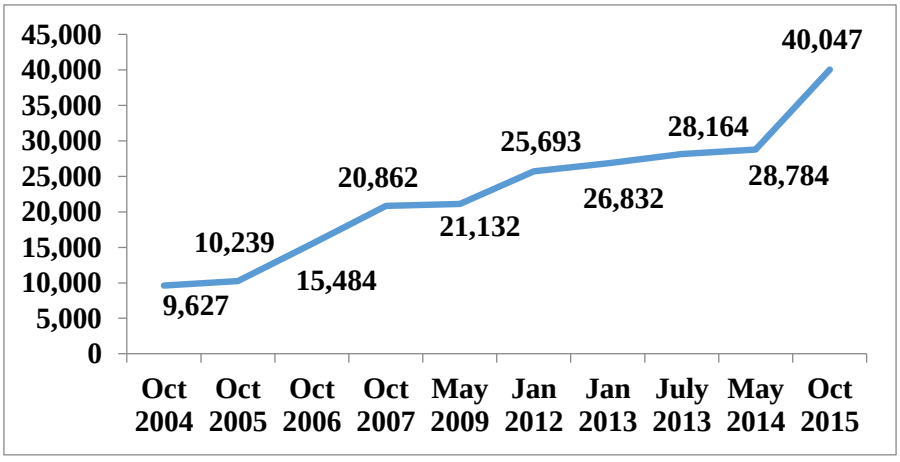
13. **Absence and implementation of a coherent policy for a sustainable financing of the system inevitably jeopardizes its expansion and improvement**. Despite a commitment to a more coherent regularization process of schools and teachers (for instance, prioritizing the regularization of primary school teachers in the context of a fee abolition policy), SECOPE/MEPSP continue adding secondary schools, offices and administrative staff onto payroll (Tables 9-10). As of October 2014, an estimated *one-third* of primary school teachers were unpaid but the system continues to significantly increase the number of paid administrative staff (a 40 percent increase between May-October 2014). Evidence from school fee practices indicates that unbudgeted schools and offices seek to finance their salaries, operating and investment costs using household contributions; newly established offices, deprived of adequate buildings, occupy classrooms in schools reducing available space for children. In a context of scarce resources and the need for their efficient use, such practices are incoherent with a cost-effective and sustainable development of the system. As a consequence, systemic reform of secondary education is likely to remain an illusion if major pending issues such as the regularization of primary teachers, the effective implementation of the fee abolition policy, and the uncontrolled expansion of administrative offices remain unaddressed.

Table 9. Registration process (2013-14)

	Secondary		Offices	
	Number of schools	Number of teachers	Number of offices	Number of staff
Janv 2013	9.488	114.175	1.786	26.832
Feb 2014	9.619	115.133	1.878	28.595
May 2014	9.654	115.250	1.888	28.784
Oct 2014	9.885	116.667	2.122	40.047

Source: SECOPE Paie désagrégé

Table 10. Growth of administrative staff (2004-14)

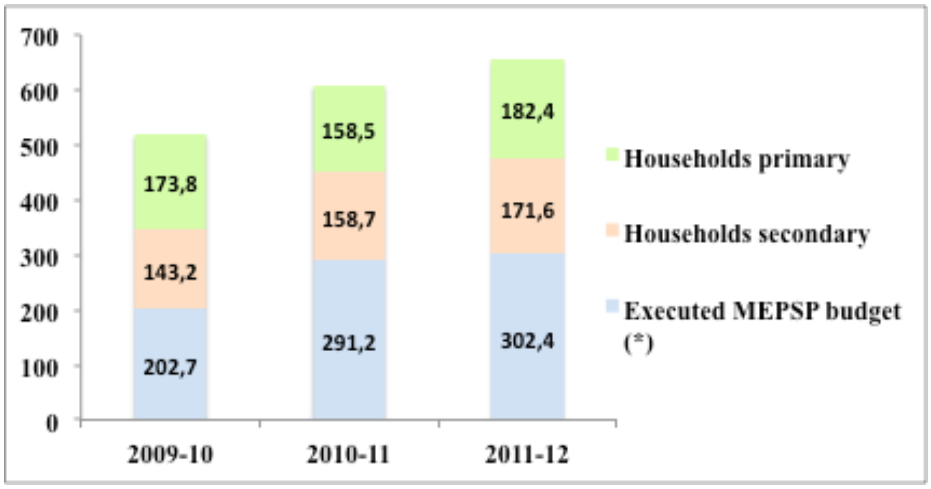


Source: SECOPE

Household contributions to education

14. **Despite an increase of the MEPSP budget, households continue to finance more than half of the education budget.** In 2009-12, household contributions to the MEPSP budget represented respectively 61 percent (2009-10), 52 percent (2010-11) and 54 percent (2011-12) of the total cost. Analysis indicates only a *temporary* decrease of household contributions at the primary level in 2010-11 (corresponding to the launch of the fee abolition policy in Grades 1-3); however, at the same time household expenditure for secondary education augmented proportionally. This trend was confirmed in 2011-12: household contributions continued to grow across the system (Table 11). Evidence shows that obstacles to an effective fee abolition policy are mainly institutional and linked to the currently poor overall governance of the system (e.g., uncontrolled growth, system complexity, weak technical capacity, etc.) It is evident that substantial financial resources are required to replace the school fees but it is also clear that actions can be taken in the short-term to make the system more cost-efficient and financially sustainable.

Table 11. Executed MEPSP budget (domestic resources) and household contributions (millions of USD) (2009-2012)



(*) ***Executed MEPSP budget (domestic resources only)***
Source: Ministry of Budget (DPSB), MEPSP Statistics, provincial decrees on school fees and estimates on the teacher salary top-ups.

Impact of the school fee abolition policy on the cost of secondary education

15. **School fees in secondary schools have almost doubled since the start of the primary fee abolition initiative in school year 2010/11.** Comprehensive analysis of school fee policy and practice across DRC (including central and decentralized levels, 'church- and state-run' networks) indicates an auto-regulation of the system and a clear weight shift of the cost from lower grades to higher ones, including secondary education (Table 12). This practice is mainly the result of the non-replacement of the cost of education by public financing (operating costs of schools and offices, salaries and salary top-ups and exam fees).

Table 12. Average annual school fees per student (USD) (compared to GDP per capita)

	2008-9	2009-10	2010-11	2011-12
Primary Grades 1-5	**15.7**	**16.8**	**14.3**	**14.0**
Primary Grade 6	**19.4**	**21.1**	**22.2**	**24.1**
Secondary Grades 1-5	**23.0**	**34.6**	**36.4**	**41.3**
Secondary Grade 6	**43.0**	**63.8**	**66.8**	**74.3**
Techn. and Vocat. Grades 1-5	**27.5**	**39.1**	**40.3**	**46.3**
Techn. and Vocat. Grade 6	**47.5**	**68.2**	**70.7**	**79.3**
Average primary	**17.6**	**19.0**	**18.3**	**19.1**
Average secondary	**35.3**	**51.4**	**53.6**	**60.3**
GDP per capita	**175**	**162**	**186**	**208**

Source: Provincial decrees on school fees and estimates of "frais de motivation".
Source PIB: IMF, World Economic Outlook Database, avril 2012.

Internal efficiency of the system

16. **School fees in general but particularly the high exam fees constitute a major barrier for equitable access to respectively junior secondary education and secondary graduation (including TVET)**. Comparison of enrollment and participation statistics for TENAFEP and *Examen d'Etat* show average losses of 8% indicating students may enroll but then not participate because of the fees (estimated in 2012 at US$6 for the TENAFEP and US$33 for the *Examen d'Etat*). In addition, (secondary) schools may require the settlement of any outstanding school fees as a precondition for enrollment. This is likely to affect the most vulnerable, especially girls. The impact of the TENAFEP exam on completion is illustrated below (Tables 13-14).

Table 13. Estimated transition rates from primary to secondary (school years 2009/10-2012/13)

School year	Boys	Girls
2009-10	**64.4%**	**62.6%**
2010-11	**67.9%**	**61.5%**
2011-12	**73.8%**	**73.9%**
2012-13	**74.8%**	**71.6%**
Average	**70.2%**	**67.4%**

Source: Computed from TENAFEP data and Statistics MEPSP

Table 14. Estimated loss of male and female pupils in Grade 6 (school year 2011-12)

Boys	Male pupils enrolled in 6th grade of primary (school year 2011-12)	Number of male candidates enrolled for TENAFEP 2012	Number of male participants in TENAFEP 2012	Number of male successfull candidates	New male entrants to 1st grade of secondary (school year 2012-13)	Loss of male pupils (%) *before TENAFEP enrollment*	Loss of male pupils (%) *before TENAFEP test*	Loss of male pupils (%) *after TENAFEP test*	Total loss after TENAFEP	Transition rate from primary to secondary (boys)
Kinshasa	65,752	65,177	63,147	53,647	53,924	-0.87%	-3.11%	-15.04%	-19.0%	81.0%
Bas-Congo	41,195	37,729	35,873	32,370	33,271	-8.41%	-4.92%	-9.77%	-23.1%	76.9%
Bandundu	102,469	88,498	81,673	75,552	78,571	-13.63%	-7.71%	-7.49%	-28.8%	71.2%
Equateur	75,392	75,228	67,233	59,726	52,813	-0.22%	-10.63%	-11.17%	-22.0%	78.0%
Province Or	75,509	73,504	66,307	54,978	49,975	-2.66%	-9.79%	-17.09%	-29.5%	70.5%
Nord-Kivu	53,326	57,513	52,196	47,205	40,386	7.85%	-9.24%	-9.56%	-11.0%	89.0%
Sud-Kivu	47,211	46,929	43,833	36,197	31,928	-0.60%	-6.60%	-17.42%	-24.6%	75.4%
Maniema	19,616	18,728	18,089	15,830	16,339	-4.53%	-3.41%	-12.49%	-20.4%	79.6%
Kasaï-Or	68,299	58,651	52,725	48,182	42,942	-14.13%	-10.10%	-8.62%	-32.8%	67.2%
Kasaï-Occ	56,743	52,284	47,227	41,370	47,633	-7.86%	-9.67%	-12.40%	-29.9%	70.1%
Katanga	101,628	96,589	87,272	75,100	79,761	-4.96%	-9.65%	-13.95%	-28.6%	71.4%
Angola	(na)	423	388	377	(na)	(na)	-8.27%	-2.84%	-11.1%	88.9%
Tanzanie	(na)	881	854	576	(na)	(na)	-3.06%	-32.55%	-35.6%	64.4%
HCR	(na)	1,439	1,372	1,324	(na)	(na)	-4.66%	-3.50%	-8.2%	91.8%
Totals	707,140	673,573	618,189	542,434	527,543	-4.7%	-8.2%	-12.3%	-25.2%	74.8%

Girls	Female pupils enrolled in 6th grade of primary (school year 2011-12)	Number of female candidates enrolled for TENAFEP 2012	Number of female participants in TENAFEP 2012	Number of female successfull candidates	New female entrants to 1st grade of secondary (school year 2012-13)	Loss of female pupils (%) *before TENAFEP enrollment*	Loss of female pupils (%) *before TENAFEP test*	Loss of female pupils (%) *after TENAFEP test*	Total loss after TENAFEP	Transition rate from primary to secondary (girls)
Kinshasa	67,579	66,754	63,045	54,206	54,295	-1.2%	-5.6%	-14.0%	-20.8%	79.2%
Bas-Congo	32,333	32,020	28,447	25,687	24,492	-1.0%	-11.2%	-9.7%	-21.8%	78.2%
Bandundu	84,599	73,569	67,597	61,514	61,717	-13.0%	-8.1%	-9.0%	-30.2%	69.8%
Equateur	48,047	45,913	41,154	34,310	28,806	-4.4%	-10.4%	-16.6%	-31.4%	68.6%
Province Or	57,346	54,705	48,917	38,192	33,403	-4.6%	-10.6%	-21.9%	-37.1%	62.9%
Nord-Kivu	47,025	50,729	46,271	41,703	35,780	7.9%	-8.8%	-9.9%	-10.8%	89.2%
Sud-Kivu	40,975	39,619	36,985	30,478	25,728	-3.3%	-6.6%	-17.6%	-27.6%	72.4%
Maniema	15,603	14,555	13,499	11,606	10,409	-6.7%	-7.3%	-14.0%	-28.0%	72.0%
Kasaï-Or	49,727	41,895	37,097	32,837	27,872	-15.7%	-11.5%	-11.5%	-38.7%	61.3%
Kasaï-Occ	37,425	33,752	29,404	26,084	24,776	-9.8%	-12.9%	-11.3%	-34.0%	66.0%
Katanga	70,212	64,195	57,847	49,616	47,245	-8.6%	-9.9%	-14.2%	-32.7%	67.3%
Angola	(na)	516	474	454	(na)	(na)	-8.1%	-4.2%	-12.4%	87.6%
Tanzanie	(na)	1,087	778	504	(na)	(na)	-28.4%	-35.2%	-63.6%	36.4%
HCR	(na)	1044	924	870	(na)	(na)	-11.5%	-5.8%	-17.3%	82.7%
Totals	550,871	520,353	472,439	408,061	374,523	-5.5%	-9.2%	-13.6%	-28.4%	71.6%

Source: TENAFEP; Statistics MEPSP

17. **Similar to SSA estimates, enrollment and completion rates are low**. It is estimated that less than 50 percent of the pupils enter junior secondary school; only 30 percent of the students enter senior school. Final year of senior secondary enrollment rates are particularly low in the technical stream (20 percent), especially for girls. Estimates on the survival of a cohort of students in the vocational stream (*Cycle court professionnel*) show similar findings: only 30% of the boys and 10% of the girls complete the 5-year cycle (Tables 15-16). Further, available data from the *Examen d'Etat* (2011-2013) indicate that on average 60% of the participants graduate. This would then signify that less than one in five students complete their primary and secondary cycles (and this figure does not integrate the number of students that do not participate at the *Examen d'Etat* because of the high exam fees).

Table 15. Estimated enrollment/completion rates (from primary to senior secondary)

	Primary			Secondary			
	Enrollment 1st Grade	Enrollment 6th Grade		Enrollment junior secondary	Enrollment senior secondary	Enrollment last year of senior secondary	
Boys	10	7	TENAFEP	4.9	3.7	General Normal Technical	3.3 3 2.5
Girls	10	6		4	2.7	General Normal Technical	2.1 1.9 1.8

Computed from TENAFEP data and Statistics MEPSP

Table 16. Survival of a cohort of students (vocational stream)

School year	Boys	Girls
2007-8	9,268	5,563
2008-9	6,509	3,849
2009-10	8,812	3,097
2010-11	5,315	1,819
2011-12	2,551	504

Source: Statistics MEPSP 2007/8-2011/12

Study options in general secondary

18. **Current non-TVET secondary education offers only limited opportunities for learning.** Choices are further non-elective and do not offer differentiated tracks. General education organizes 2 sections (literary and scientific) and 5 study options (of which only 3 are operational); normal education is almost exclusively dedicated to primary teacher preparation. This signifies that non-TVET secondary students only have 4 options: the literary section (*Latin-Philosophy*), the scientific section (*Math-Physics* and *Chemistry-Biology*) and the pedagogical section. In addition, Grade 12 graduation rates (2013) seem to indicate that students seek to adopt the pedagogical section, deemed to be less stringent to compensate for this lack of choices and alternatives: (i) 72% of non-TVET students are enrolled in the pedagogical section; (ii) 18% in *Chemistry-Biology*; and (iii) a mere 10% in the remaining 7 study options. In the literary section, study options *Latin-Greek* and *Latin-Mathematics* have become irrelevant with less than 100 students countrywide (Table 17). Finally, graduation figures show a very low pass rate across the two sections (average of 45%) raising concerns about the efficiency of the teaching and learning. Data on the quality of secondary education are scarce and anecdotal; universities and the private

sector regularly complain about the poor performance of secondary graduates (for instance when applying for a job). These findings, however, are not underpinned by academic research that analyzes the causes.

Table 17. Enrollment and graduation rates (2013)
(General and normal secondary)

		Number of participants		Number of successful candidates	Loss (number)	Loss (%)
	Cycle long général					
101	Latin-Philosophie	26808		16627	10181	38,0%
102	Mathématique-Physique	11391		6627	4764	41,8%
103	Chimie-Biologie	71097	28%	34348	36749	51,7%
104	Latin-Grec	20		20	0	0,0%
105	Latin-Mathématique	69		28	41	59,4%
	Total	109385		57650	51735	47,3%
	Cycle long normal					
201	Pédagogie générale	279968		117702	162266	58,0%
202	Education physique	96	72%	56	40	41,7%
203	Normale	1836		857	979	53,3%
204	Pédagogie maternelle/préscolaire	60		42	18	30,0%
	Total	281960		118657	163303	57,9%
	Total General	391345		176307	215038	54,9%

19. **Non-TVET curricula need to be reviewed, rewritten and distributed in schools.** The MEPSP website (www.eduquepsp.cd) publishes a series of non-TVET curricula (*programmes scolaires*). However, many of these are outdated, incomplete, nonexistent or of poor quality; moreover, their availability on the website of the Ministry is not synonymous with accessibility as access to power and/or the internet (computer) remain the privilege of a few. School timetables seem to vary (some curricula do not indicate the number of periods) and field visits in schools (Kinshasa) either show noncompliance with official time slots or a locally decided rescheduling in line with the schools' realities. Recently developed programs such as *Informatique* (Computing) and *Education à la vie* (Life skills) seem to have been introduced without prior reflection (and guidance) on their interaction with existing programs/time schedules. The result is the existence of non-standardized timetables and confusion about the number of periods allocated to each teaching subject (Table 18).

20. **Textbooks exist but may need to be reviewed and are generally inaccessible.** On top of the high secondary school fees, textbooks, if available, are an extra high cost for households making education generally inaccessible. A recent initiative of the MEPSP, called MASCO s.p.r.l. (*Manuels Scolaires*), compels all secondary schools (TVET and non-TVET) to purchase a standardized set of books at a very high price (about US$2,000 per school); this process is still ongoing but has built increased resentment from schools and parents essentially because of the irrelevant book titles, the compulsory nature of the operation and opaque financial management. As secondary schools mainly operate on school fees they transfer the cost to the parents.

Table 18. Timetables for the literary and scientific sections (Grades 9-12) (as of 2014)

Teaching subjects	*Section Scientifique*								*Section Littéraire*			
	Option Math-Physique				*Option Bio-Chimie*				*Option Latin-Philosophie*			
	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9	Grade 10	Grade 11	Grade 12
Religion	1	1	1	0	1	1	1	0	1	1	1	1
Education civique et morale	1	1	1	1	1	1	1	1	1	1	1	1
Français	5	5	5	4	5	5	5	4	5	6	5	6
Anglais	3	1	4	2	3	1	3	2	3	3	6	5
Histoire	2	2	2	2	2	2	2	2	2	2	2	2
Sciences naturelles												
Géographie	2	2	2	2	2	2	2	2	2	2	2	2
Mathématiques	5	3	5	4	5	3	5	4	4	4	3	3
Technologie												
Education physique et sportive	1	1	1	0	1	1	1	0	1	1	1	1
Musique												
Dessin												
Dessin scientifique	2	4	1		2	4		4				
Sociologie africaine	2				2				2			
Economie politique		1				2				2		
Initiation esthétique			2				2				2	
Philosophie				2				2				2
Physique	3	4	3	3	3	4	4	4	0	2	2	2
Chimie	3	3			3	3	4	4	2	1	1	2
Biologie	1	4	4	2	1	4	5	2	1	2	2	3
Latin									6	6	6	7
Informatique	1	1	1	1	1	1	1	1	1	1	1	1
Education à la vie	1	1	1	1	1	1	1	1	1	1	1	1
Total	33	34	33	24 *(to be checked)*	33	35	37	34	33	36	36	39

Study options in secondary level TVET

21. **TVET does not seem to efficiently address the future skills needed to underpin the economic development of DRC.** The technical and vocational streams (*Cycle long* and *Cycle court*) both currently offer about 40 different training and professional development options. Analysis of the *Examen d'Etat* enrollment and participation rates indicates that less than half (17) of these options enroll more than 1500 graduates; some do not enroll more than 20 graduates nationwide (such as, for instance, *Latin-Grec* in the 'general' stream, *Pédagogie maternelle* in the 'pedagogical' stream, and *Météorologie*, *Hébergement*, *Musique*, *Tourisme* etc. in the 'technical' stream); still others with zero enrollment may not be operational (*Mécanique dessin*) (Tables 19-20). Further, most options do not have appropriate curricula; of more concern, curricula may be nonexistent and hence the quality of the learning entirely relies on the creativity of teachers (absence of national curricula and clear standards of achievement evidently questions the quality and the fairness of the examination process). Ongoing initiatives (with support from VVOB and CTB) try to address these issues: (i) MEPSP developed relevant curricula for agriculture (6 for the 'technical' stream: *Pêche et Navigation*; *Agriculture générale*; *Nutrition*; *Vétérinaire*; *Industries agricoles* - reducing agriculture curricula/options from 10 to 6; and 5 for the 'vocational' stream: *Transformation des produits agricoles-Nutrition de base*; *Elevage-Véterinaire*; *Engins agricoles, Agriculture Foresterie* and *Productions horticoles*); and (ii) APEFE/CTB supported the development of 10 additional curricula (*référentiels*); these are: *Froid et climatisation*; *Maçonnerie*; *Plomberie-zinguerie*; *Menuiserie-charpenterie*; *Coupe et couture; Esthétique et coiffure; Mécanique automobile; Secrétariat-Administration* and *Electricité domestique.*

Agriculture curricula are in the process of generalization; the others are still in a piloting phase. Interviews conducted at VVOB and CTB reveal the need for a major shift from 'piecemeal' initiatives to systemic change. This mainly includes: (i) a more harmonized and stronger donor intervention for effective structural reform and related (political) commitment by MEPSP and line ministries, such as Budget and Finance; (ii) clear policies on priorities and relevant routes for development (building on the national/provincial *Annuaires* developed by CTB that have started analysis of the labor markets and the demand side); (iii) a more comprehensive and well-defined delineation of roles and responsibilities involving all Ministries that cover TVET (such as *Affaires sociales*, *Emploi* and *Jeunesse et Sport*). Following the opinion of VVOB and CTB, the presence of more 'influential' actors (such as the World Bank, and likely the private sector) may be necessary to trigger the needed reform and make their support more efficient. For instance, it took some 8 years to develop the agriculture curricula; however, data from the *Examen d'Etat* indicate that this option is not 'cost-effective' (representing a mere 3% of all graduates in 2013).

Table 19. Enrollment at the *Examen d'Etat* (2013)

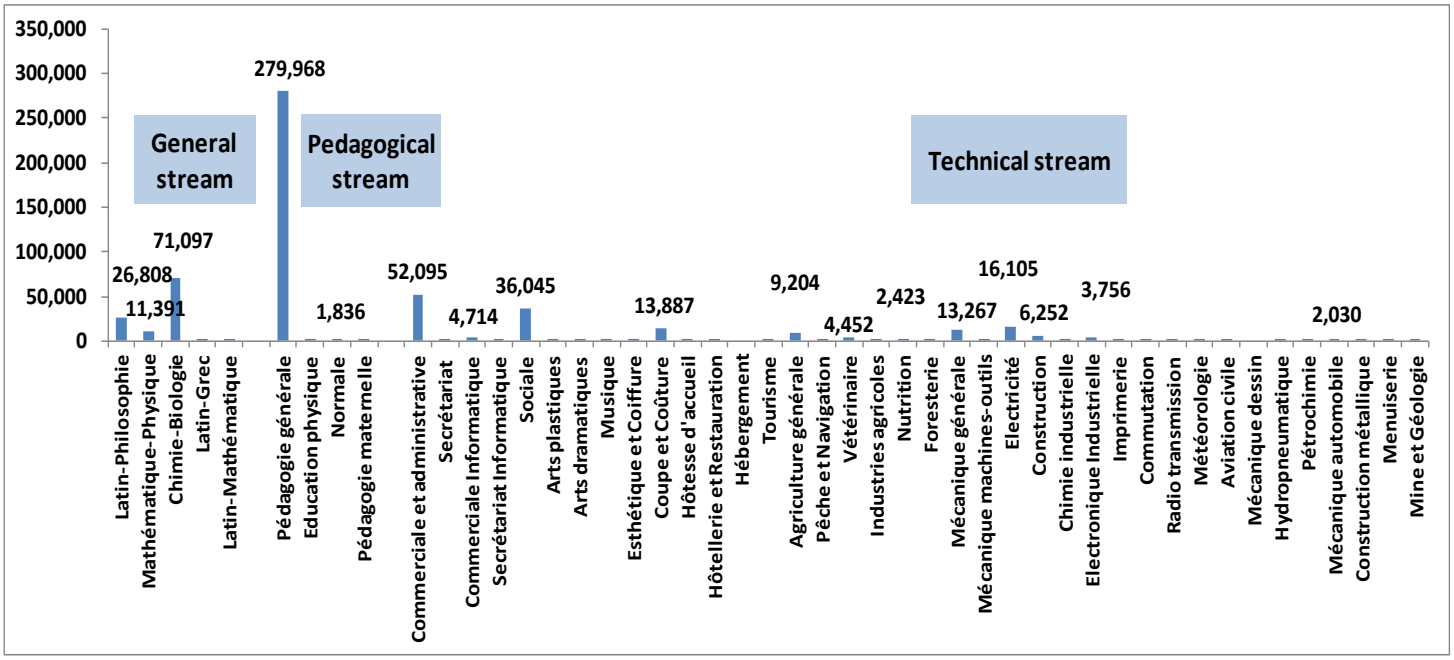


Table 20. Enrollment and graduation rates (*Examen d'Etat* 2011-2013)

		Exetat 2011					Exetat 2012					Exetat 2013				
		Number of participants		Number of successful candidates	Loss		Number of participants		Number of successful candidates	Loss		Number of participants		Number of successful candidates	Loss	
					Number	%				Number	%				Number	%
Cycle long général																
101	Latin-Philosophie	21,897		14,674	7,223	33.0%	23,956		15,730	8,226	34.3%	26,808		16,627	10,181	38.0%
102	Mathématique-Physique	12,558		6,693	5,865	46.7%	12,762		7,958	4,804	37.6%	11,391		6,627	4,764	41.8%
103	Chimie-Biologie	62,400	20.8%	42,522	19,878	31.9%	64,424	19.9%	38,051	26,373	40.9%	71,097	19.5%	34,348	36,749	51.7%
104	Latin-Grec	19		0	19	100.0%	12		12	0	0.0%	20		20	0	0.0%
105	Latin-Mathématique	49		46	3	6.1%	69		37	32	46.4%	69		28	41	59.4%
Cycle long normal																
201	Pédagogie générale	221,147		156,455	64,692	29.3%	253,801		163,594	90,207	35.5%	279,968		117,702	162,266	58.0%
202	Education physique	128	47.8%	58	70	54.7%	103	50,2%	30	73	70.9%	96	50.4%	56	40	41.7%
203	Normale	1,296		743	553	42.7%	1,657		682	975	58.8%	1,836		857	979	53.3%
204	Pédagogie maternelle	13		12	1	7.7%	35		13	22	62.9%	60		42	18	30.0%
Cycle long technique professionnel																
301	Commerciale et administrative	49,466		35,246	14,220	28.7%	46,615		28,182	18,433	39.5%	52,095		20,987	31,108	59.7%
302	Secrétariat	386	11.0%	121	265	68.7%	585	10.0%	247	338	57.8%	578	10.3%	335	243	42.0%
303	Commerciale Informatique	2,652		1,755	897	33.8%	3,423		2,290	1,133	33.1%	4,714		2,776	1,938	41.1%
304	Secrétariat Informatique	202		103	99	49.0%	141		62	79	56.0%	417		303	114	27.3%
401	Sociale	27,824	6.0%	19,083	8,741	31.4%	30,321	6.0%	12,541	17,780	58.6%	36,045	6.4%	20,021	16,024	44.5%
501	Arts plastiques	324		213	111	34.3%	325		222	103	31.7%	285		251	34	11.9%
502	Arts dramatiques	9	0.08%	7	2	22.2%	8	0.07%	8	0	0.0%	5	0.06%	5	0	0.0%
503	Musique	34		34	0	0.0%	27		13	14	51.9%	31		23	8	25.8%
504	Esthétique et Coiffure	10		5	5	50.0%	12		0	12	100.0%	11		0	11	100.0%
601	Coupe et Coûture	12,720	2.7%	9,189	3,531	27.8%	13,646	2.7%	10,669	2,977	21.8%	13,887	2.5%	10,254	3,633	26.2%
701	Hôtesse d'accueil	472		231	241	51.1%	459		193	266	58.0%	612		310	302	49.3%
702	Hôtellerie et Restauration	112	0.13%	106	6	5.4%	162	0.10%	52	110	67.9%	303	0.17%	219	84	27.7%
703	Hébergement	17		17	0	0.0%	16		16	0	0.0%	0		0	0	0.0%
704	Tourisme	17		17	0	0.0%	44		44	0	0.0%	15		15	0	0.0%
801	Agriculture générale	8,265		6,372	1,893	22.9%	7,965		3,530	4,435	55.7%	9,204		6,412	2,792	30.3%
802	Pêche et Navigation	68		64	4	5.9%	65		47	18	27.7%	76		63	13	17.1%
803	Vétérinaire	3,960	3.1%	2,902	1,058	26.7%	3,308	2.7%	1,491	1,817	54.9%	4,452	2.9%	2,903	1,549	34.8%
804	Industries agricoles	235		207	28	11.9%	207		114	93	44.9%	237		216	21	8.9%
805	Nutrition	1,965		1,334	631	32.1%	2,087		1,051	1,036	49.6%	2,423		2,035	388	16.0%
806	Foresterie	15		8	7	46.7%	50		31	19	38.0%	52		47	5	9.6%
901	Mécanique générale	11,424		8,412	3,012	26.4%	12,279		5,927	6,352	51.7%	13,267		6,510	6,757	50.9%
902	Mécanique machines-outils	474		370	104	21.9%	466		323	143	30.7%	460		281	179	38.9%
903	Electricité	15,130		6,258	8,872	58.6%	18,520		12,588	5,932	32.0%	16,105		9,100	7,005	43.5%
904	Construction	4,942		4,158	784	15.9%	5,088		2,830	2,258	44.4%	6,252		3,998	2,254	36.1%
905	Chimie industrielle	72		52	20	27.8%	98		95	3	3.1%	59		51	8	13.6%
906	Electronique Industrielle	3,246		1,736	1,510	46.5%	3,620		1,636	1,984	54.8%	3,756		1,906	1,850	49.3%
907	Imprimerie	81		75	6	7.4%	78		62	16	20.5%	85		76	9	10.6%
908	Commutation	85		82	3	3.5%	97		89	8	8.2%	67		64	3	4.5%
909	Radio transmission	122	8.0%	87	35	28.7%	110	8.4%	55	55	50.0%	102	7.7%	85	17	16.7%
910	Météorologie	13		7	6	46.2%	16		5	11	68.8%	6		6	0	0.0%
911	Aviation civile	59		56	3	5.1%	51		47	4	7.8%	61		56	5	8.2%
912	Mécanique dessin	0		0	0	(na)	0		0	0	0.0%	0		0	0	0.0%
913	Hydropneumatique	110		11	99	90.0%	50		33	17	34.0%	46		33	13	28.3%
914	Pétrochimie	93		85	8	8.6%	125		73	52	41.6%	171		143	28	16.4%
915	Mécanique automobile	1,501		832	669	44.6%	1,809		1,002	807	44.6%	2,030		1,205	825	40.6%
916	Construction métallique	26		26	0	0.0%	12		5	7	58.3%	25		24	1	4.0%
917	Menuiserie	109		36	73	67.0%	204		97	107	52.5%	341		67	274	80.4%
918	Mine et Géologie	0		0	0	(na)	0		0	0	0.0%	8		7	1	12.5%
	Total	465,747		320,500	145,247	31.2%	508,908		311,777	197,131	38.7%	559,628		267,094	292,534	52.3%

Pre-service teacher development

Primary teachers

22. **Over the last 3 years, the general pedagogical stream (called *humanités pédagogiques* -HP) theoretically produced some 440,000 primary teachers (30% more than the current primary teacher workforce estimated at 340,000 in school year 2012/13).** Enrollment and graduation trends show that 50% of senior secondary students currently graduate as primary teachers (Table 21). This exponential growth has been ongoing for a decade. Schools have been developing this option to offer students a more straightforward and undemanding way for graduation and easier access to higher education; most of these students use the option as a 'springboard' for university and do not join the primary teacher workforce. As a result, return on investment is low. In-depth analysis (*Notre beau métier*, 2006 (World Bank) and *Etude sur l'Etat des lieux des humanités pédagogiques*, UNESCO 2012) on the quality and efficiency of the HPs is available. As the system continues to expand (more and more HPs are being created exceeding the demand for primary teachers) a systemic reform of pre-service primary teacher development becomes increasingly difficult to implement (Tables 22-23). Finally, study options *Education physique* and *Pédagogie maternelle/préscolaire* deliver less than 100 graduates countrywide (2013) and seem therefore not cost-efficient.

23. **Consensus exists on the key components for the reform of the *humanités pédagogiques*.**[14] These include: (i) develop early-stage practice teaching skills and substantial classroom experience; (ii) formally connect the training center (school) to a nearby practice school (called *école primaire d'application*), including provision of relevant teaching materials etc.; (iii) identify, select and support existing HPs with potential (valuable teaching staff, availability of a practice school, etc.) and transform these into full-fledged *écoles normales* (number based on provincial projections of teacher demand/shortage) ; and (iv) provide simultaneous training to pedagogy teachers (current *professeurs de psycho-péda*) and inspectors. A complete rethink of the pre-service teacher training model is a major but indispensable reform for two main reasons: (i) stop the current uncontrolled growth of an inefficient and costly system; and (ii) develop an efficient and relevant primary teacher preparation model as a systemic and 'cost-effective' alternative to various ongoing "in-service" teacher training initiatives.

[14] See also *Plan Intérimaire de l'Education* (PIE), p.54.

Table 21. Number of students that graduate as primary teachers (code 201) school years 2004-5

Code	2004 (%)	2005 (%)
101	4.68	4.73
102	5.57	5.05
103	16.17	16.15
104	0.01	0.01
105	0.01	0.01
201	35.92	40.57
202	0.05	0.05
203	0.06	0.1
301	19.24	15.65
302	0.06	0.06
303	0.03	0.07
304	0	0
401	4.81	0
501-503	0.11	0.11
601	2.14	2.22
701	0.97	0.15
702	0.01	0.01
703	0	0
801-810	2.99	3.18
901-915	7.17	7.33

Source: Examen d'Etat

Table 22. Number of HP schools per province (2011)

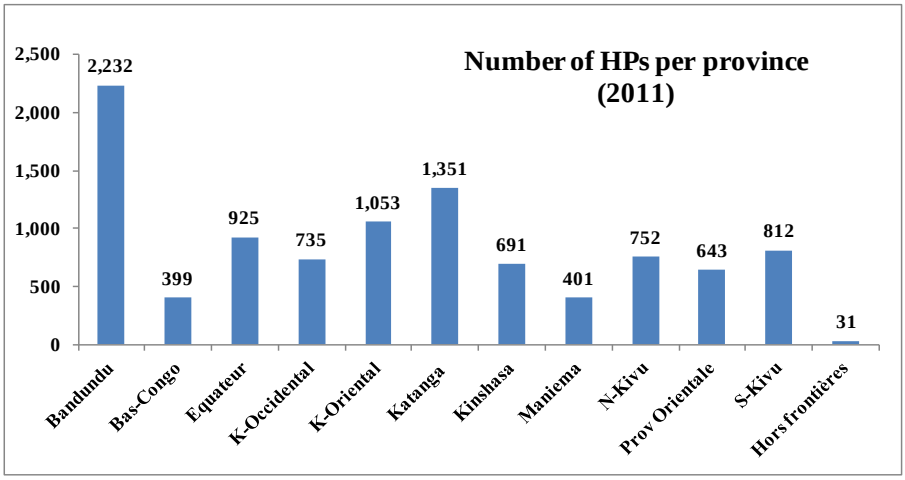
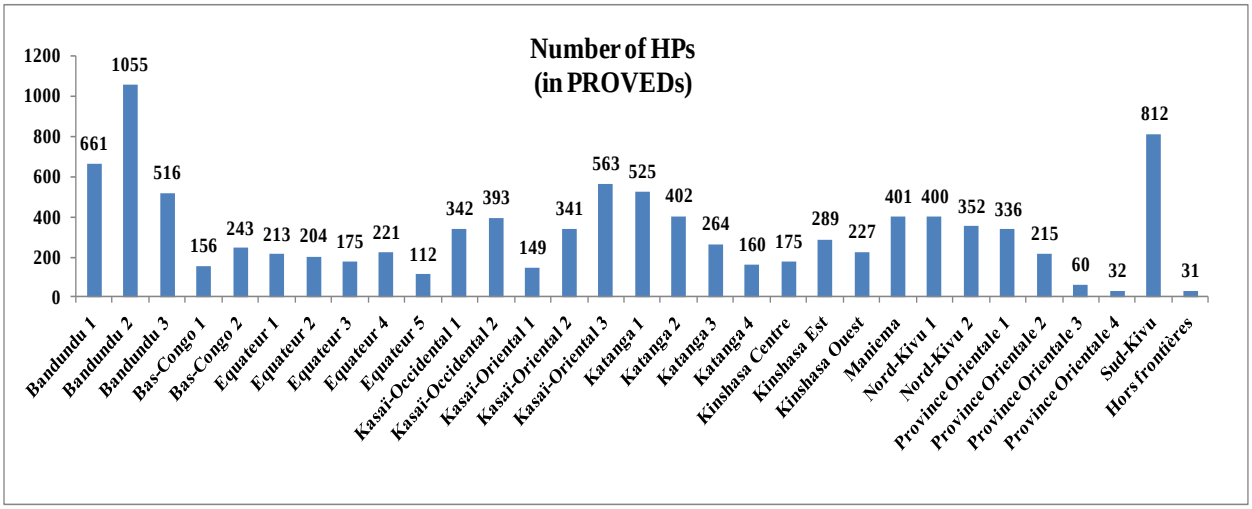


Table 23. Number of HP schools (2011)
(per "educational province")



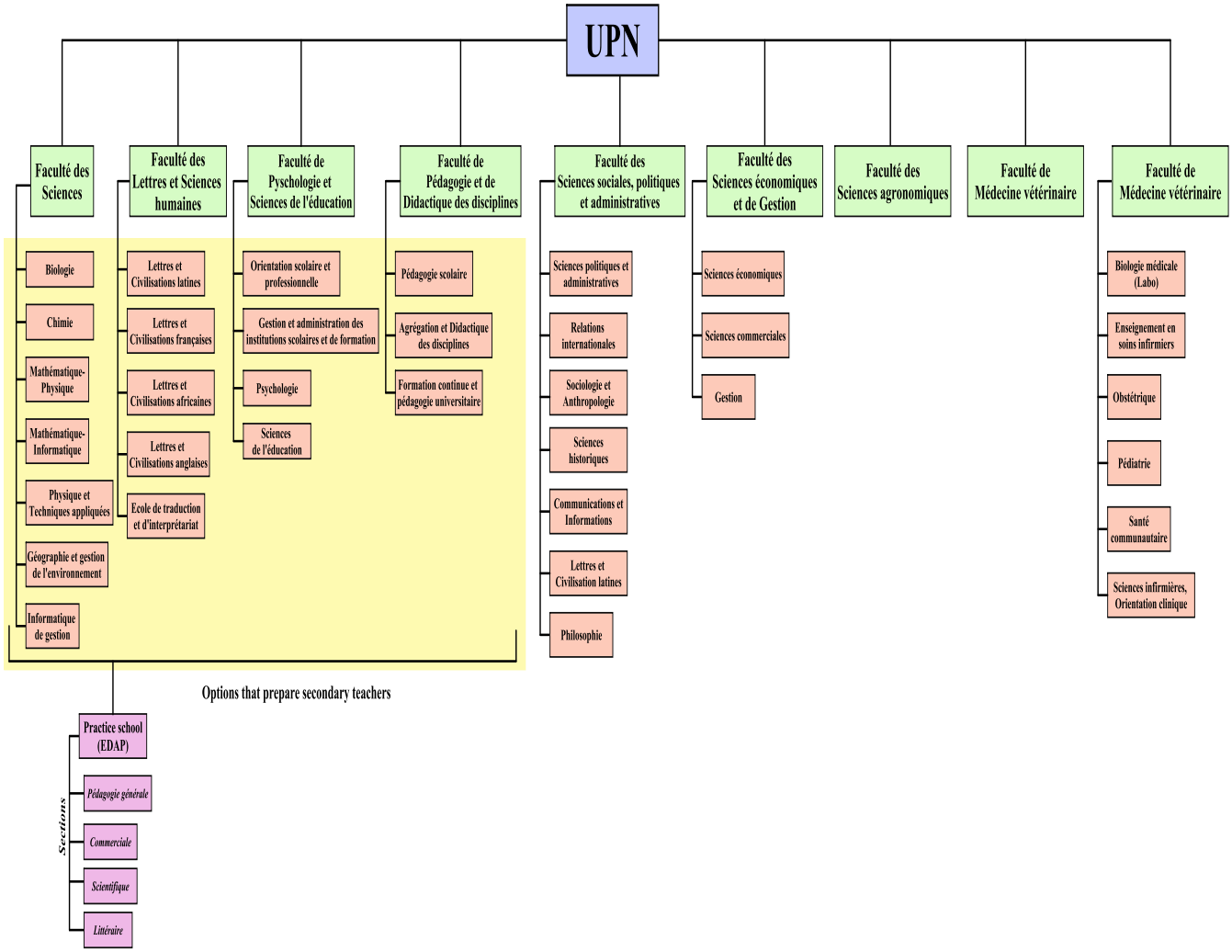
Secondary teachers

24. **Secondary teachers are trained in ISPs (*Instituts supérieurs pédagogiques* - teacher training institutes) and the Kinshasa-based UPN (*Université pédagogique nationale*).** The original demarcation between the universities and (non-university) higher institutes is getting increasingly ambiguous as the latter comparably introduced a 2-year second cycle (*licence*) after the 3-year undergraduate level (*graduat*). Under pressure from local dynamics and political considerations, ISPs have been mushrooming (reportedly 37 in 1989, 66 in 1993 and more than 120 in 2013) and are therefore likely to be of diversified quality. Analysis of their budgets shows annual allocations ranging from USD 20,000 to USD 2.2 million (ISP Kinshasa); 17% of ISPs had a zero budget execution rate but 23% exceeded their initial allocations (some up to more than 400%). This may indicate that as the number of ISPs continues to grow and, concomitantly, continue exercising increased pressure on limited budgets, it is more than likely that their establishment and subsequent survival entirely depend on unpredictable power dynamics rather than a coherent strategy that seeks to effectively meet the demand for secondary teachers. For that reason, it is evident that any support to these teacher training institutes will require a solid assessment of their institutional, pedagogical and financial capacities; many of the recently created ISP are in fact 'extensions' of the ones that are based in the provincial capitals. It is therefore common sense for any teacher training policy to first revamp the latter as they can still rely on a minimum of infrastructure and human capital.

25. **Most ISPs organize similar teacher training study options**. These mainly include *Lettres et sciences humaines* (Human arts and sciences – English, French, History and African languages), *Sciences exactes* (Exact sciences – Mathematics, Physics, Biology, Chemistry and Geography/Environment); some of them also organize a section called *Sciences d'Appui à l'Enseignement* (*Orientation scolaire* and *Gestion des Institutions scolaires*) that prepares non-teaching staff in schools, such as head teachers and student/guidance counselors (*Conseillers d'orientation*). The UPN offers similar study options but has increasingly diversified its programs to attract more students (Table 24). In a similar way, ISPs have been developing TVET teacher

training programs in Commercial sciences, Catering and Tourism (*Hôtellerie* and *Tourisme).* As said earlier, boundaries between university and non-university institutions is getting blurred; in the end, the difference between ISP and UPN graduates is in the name only (university vs. higher diploma).

Table 24. Study options at UPN (Kinshasa 2014)



Major challenges

26. **Challenges appear multifold but may need to be better investigated and documented.** These mainly are:

> *a) Absence of a coherent policy framework for secondary teacher development.* Findings indicate uncontrolled growth of ISPs based on political motivation rather than a coherent and efficient response to teacher shortages; this relates to both quantity (number of teachers) and specialization (teaching subjects). Preliminary analysis shows (i) absence of a clear and consistent relationship between the number of ISPs and the number of

secondary schools, students and teachers; (ii) inefficiency of the study options provided in the ISPs (one-third have less than 500 students and two-thirds less than 1500; and (iii) a relatively low enrollment in natural and exact sciences (that corroborates the current shortage of qualified math and science teachers). (Table 25-26)

b) Lack of analysis to determine the quality of ISP curricula and the competency of the teacher corps. The uncontrolled growth of the ISPs and their supposed quest for qualified personnel, decennia of poor teaching and learning combined with overall weak accountability channels in public service delivery are sufficient concerns to question the current quality of the teaching and learning conditions in the ISPs. Any strategy for quality improvement should therefore incorporate an assessment of the quality of the curricula content and the competency of the teachers, a shift towards a standardized curriculum and an in-service teacher training program.

c) Low attractiveness of the teaching profession. Current professional conditions (salary, status and career opportunities, technical capacity, general teaching conditions etc.) are insufficient to attract qualified teachers.

Table 25. Number of ISPs, students and teachers
(as compared to number of secondary schools, students and teachers)
(school year 2012-13)

	Number of ISPs	Number of schools	Number of students	Number of teachers	Number of schools per ISP	Number of students per ISP	Number of teachers per ISP
Kinshasa	**1**	**753**	**268 195**	**14377**	**753**	**268 195**	**14 377**
Bas-Congo	**3**	**1 085**	**216 307**	**15815**	**362**	**72 102**	**5 272**
Bandundu	**26**	**4 864**	**662 545**	**70118**	**187**	**25 483**	**2 697**
Equator	**13**	**2 529**	**331 709**	**26472**	**195**	**25 516**	**2 036**
Orientale	**12**	**1 548**	**263 086**	**17372**	**129**	**21 924**	**1 448**
North-Kvu	**16**	**1 203**	**289 209**	**16130**	**75**	**18 076**	**1 008**
South-Kivu	**8**	**1 134**	**229 145**	**12871**	**142**	**28 643**	**1 609**
Maniema	**7**	**832**	**116 066**	**9349**	**119**	**16 581**	**1 336**
K-Oriental	**9**	**1 321**	**252 390**	**15431**	**147**	**28 043**	**1 715**
K-Occidental	**7**	**2 110**	**293 598**	**21669**	**301**	**41 943**	**3 096**
Katanga	**11**	**2 216**	**414 324**	**22124**	**201**	**37 666**	**2 011**
TOT	**113**	**19 595**	**3 336 574**	**241 728**	**173**	**29 527**	**2 139**

Source: Computed from ESU statist

Table 26. Number of students enrolled in ISPs (disaggregated by province and study option)

		KIN	BC	BDD	Eq	PO	Ma	NK	SK	KAT	KOC	KOR	DRC
Préparatoire	Préparatoire	418	0	0	0	0	0	42	0	0	0	0	460
Lettres et Sciences humaines	Anglais et culture africaine	143	93	913	147	387	34	6	549	13	24	19	2.328
	Français et culture africaine	0	208	2 050	430	627	222	27	363	43	169	73	2.162
	Français-Latin	0	36	280	60	82	0	13	0	0	7	7	485
	Histoire et gestion du patrimoine	55	87	1 170	624	530	153	33	231	6	72	32	1.823
	Français et Langues africaines	145	0	188	377	84	0	9	94	17	0	0	914
	Total	343	424	4 601	1 638	1 710	409	88	1 237	79	272	131	1.746
Sciences naturelles et exactes	Math-physique	0	76	537	108	185	29	17	162	4	12	6	1.136
	Math-info	0	63	254	94	54	0	0	15	1	10	20	511
	Chimie-physique	0	0	144	3	24	0	0	55	0	0	0	226
	Biologie-chimie	0	111	1 549	174	106	2	2	173	14	31	8	621
	Physique et techniques appliquées	119	0	23	141	0	0	0	0	0	1	0	284
	Education physique	0	0	0	0	0	0	0	0	1	0	0	1
	Géographie/gestion de l'environnement	199	0	478	10	250	26	10	89	1	38	1	1.102
	Total	318	250	2 985	530	619	57	29	494	21	92	35	2.445
Sciences sociales	Sciences commerciales et administratives	2 353	330	1 172	712	329	59	3	1 014	9	179	36	1.657
	Sciences sociales	0	0	165	0	0	0	0	0	0	0	0	165
	Total	2 353	330	1 337	712	329	59	3	1 014	9	179	36	1.657
Sciences d'appui à l'enseignement	Orientation scolaire	0	0	864	0	19	0	1	32	1	0	86	1.003
	Gestion des instit. scol. et de formation	0	97	416	907	7	78	0	17	0	165	91	1.778
	Total	0	97	1 280	907	26	78	1	49	1	165	177	1.501
	Total général	3 432	1 101	10 203	3 787	2 684	603	163	2 794	110	708	379	1.963

Source: ESU statistics (2012-13)

27. **Public tertiary education is administered by three Boards of Directors (*Conseils d'Administration*)**[15] **with responsibility for overseeing public universities, higher teacher training institutes (*Institut Supérieur Pédagogique* - ISP) and higher technical institutes (*Institut Supérieur Technique* - IST), respectively.** All tertiary institutions operate autonomously and are structured in the same way; comprised of a *Conseil d'Etablissement* (highest authority), the *Conseil de gestion* (management committee), the *Chef d'Etablissement* (Rector in universities and Director General in institutes), faculties and departments. Rectors and Director Generals are appointed by the President of the Republic but are technically and administratively accountable to the Minister of ESURS. Universities and higher education institutes offer multiple programs of study which vary from three to seven years at university level and from three to five year at higher education institutes. In 2012-13, 350 public tertiary institutions enrolled an estimated 315,000 students, supported by a complement of 18,300 teaching staff.

28. **The tertiary sector is characterized by low levels of internal efficiency and faces a number of significant challenges.** Half of enrolled students drop out of the system by the time they reach their third year of university. Moreover, 19 percent of students repeat at least one academic year through the course of their studies. A viability audit conducted by MESU in 2011, highlighted a number of significant challenges undermining a functional learning environment and the delivery of quality learning outcomes, including: (i) the uncontrolled expansion of poor quality institutions, especially in the private sector; (ii) poor standards of governance and accountability;

[15] These are : *Conseil d'Administration des Universités* (CAU), *Conseil d'Administration des Instituts Supérieurs Pédagogiques* (CAISP) and *Conseil d'Administration des Instituts Supérieurs Techniques* (CAIST).

(iii) dilapidated buildings and obsolete equipment; (iv) limited space and overcrowded auditoria; (v) a mismatch between academic programs and employability; and (vi) a severe shortage of appropriately qualified teaching staff: The challenge of recruiting suitable staff is a significant concern: In public higher education, only 13 percent of teaching staff hold a doctoral degree, translating to one qualified teacher for every 80 students. In private universities the ratio of qualified teachers to students is approximately 850 to one. A contingent challenge, that will exacerbate the shortage of qualified staff going forward, is that the average age of qualified staff within the current system is 65. Half of public universities have less than five qualified teaching staff and the bulk of doctoral studies are concentrated in three public universities (Kinshasa, Kisangani and Lubumbashi).[16]

[16] Kapagama, Pascal (2011). *Exploitation des données de l'enquête de viabilité des établissements de l'enseignement supérieur et universitaire en RDC. Rapport final sur les universités.*