



MINISTRY OF ENERGY AND MINERAL DEVELOPMENT

# WORKFORCE SKILLS DEVELOPMENT STRATEGY AND PLAN FOR THE OIL & GAS SUB-SECTOR IN UGANDA



# CONTENTS

Section	Contents	Page
	List of Abbreviations and Acronyms	4
	Executive Summary	6
	Introduction and Purpose of Workforce Skills Development Strategy & Plan	7
<b>Section 1</b>	<b>Oil &amp; Gas in Uganda- Progress to date and Policy Objectives</b>	<b>10</b>
	1.1 Current Status of the Oil and Gas Industry in Uganda	10
	1.2 Ugandan Policy Objectives and Related Legislation	10
<b>Section 2</b>	<b>Oil &amp; Gas Skills Demand and Supply Assessment: Key Issues and Findings</b>	<b>13</b>
	2.1 Key Findings of the Oil & Gas Skills Demand Assessment	15
	2.2 Key Findings of the Oil & Gas Skills Supply Assessment	20
<b>Section 3</b>	<b>Purpose and Objectives of the Workforce Skills Development Strategy and Plan</b>	<b>25</b>
<b>Section 4</b>	<b>Activities to address cross-cutting constraints</b>	<b>29</b>
	4.1 Institutional Architecture and Coordination Mechanisms	29
	4.2 Accreditation and Standards	40
	4.3 Communications and Information Sharing	52

<b>Section 5</b>	<b>Activities to address specific constraints at Qualifications Levels 1, 2, 3 and 4</b>	<b>59</b>
	5.1 Activities to address constraints at Qualification Level 1 (Basic Skills and Entry-Level)	59
	5.2 Activities to address constraints at Qualification Level 2 (Crafts & Trades)	64
	5.3 Activities to address constraints at Qualification Level 3 (Technician Level)	73
	5.4 Activities to address constraints at Qualification Level 4 (Engineers & Managers)	82
<b>Section 6</b>	<b>Financing and Funding Mechanisms</b>	<b>89</b>
	6.1 Estimated cost of WSDSP activities	89
	6.2 Proposed Financing Mechanisms	93
	6.3 WSDSP Financing Framework	94
	6.4 Implementation Timetable for Financing and Funding Mechanism activities	104
<b>Section 7</b>	<b>Detailed WSDSP Work Plan</b>	<b>105</b>
<b>Section 8</b>	<b>Monitoring Progress and Measuring Success</b>	<b>116</b>
<b>Annex One</b>	<b>List of Stakeholders consulted in the development of the WSDSP</b>	
<b>Annex Two</b>	<b>WSDSP Itemised Budget</b>	40

## List of Abbreviations and Acronyms

<b>API</b>	American Petroleum Institute
<b>BTC</b>	Belgian Development Agency
<b>BTVET</b>	Business, Technical and Vocational Education & Training
<b>CIPS</b>	Chartered Institute of Procurement and Supply
<b>CISRS</b>	Construction Industry Scaffolders Record Scheme
<b>CNOOC</b>	China National Offshore Oil Company
<b>DFID</b>	Department for International Development (UK)
<b>DIT</b>	Directorate of Industrial Training
<b>DoP</b>	Directorate of Petroleum
<b>EEC</b>	Enterprise Enhancement Centre
<b>EPC</b>	Engineering, Procurement and Construction
<b>GiZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>HSE</b>	Health, Safety and Environment
<b>HNC</b>	Higher National Certificate
<b>IELTS</b>	International English Language Testing System
<b>IDP</b>	Institutional Development Plan
<b>IOC</b>	International Oil Company
<b>ISO</b>	International Organisation for Standardisation
<b>KPIs</b>	Key Performance Indicators
<b>MEMD</b>	Ministry of Energy and Mineral Development
<b>MoESTS</b>	Ministry of Education, Science, Technology & Sports
<b>MoFPED</b>	Ministry of Finance, Planning & Economic Development
<b>MoGLRD</b>	Ministry of Gender, Labour and Rural Development
<b>MTIC</b>	Ministry of Trade, Industry & Cooperatives
<b>NC</b>	National Certificate
<b>NCHE</b>	National Council for Higher Education
<b>NDP2</b>	National Development Plan 2
<b>NOGP</b>	National Oil & Gas Policy

<b>NPA</b>	National Planning Authority
<b>NPV</b>	Net Present Value
<b>NVQ</b>	National Vocational Qualification
<b>OJT</b>	On the Job Training
<b>OPITO</b>	Offshore Petroleum Industry Training Organisation
<b>OPM</b>	Office of the Prime Minister
<b>PEPD</b>	Petroleum Exploration and Production Department
<b>PS</b>	Permanent Secretary
<b>PSA</b>	Directorate of Petroleum
<b>PSFU</b>	Private Sector Foundation Uganda
<b>SDA</b>	Skills Development Authority
<b>SSC</b>	Sector Skills Council
<b>UBOS</b>	Uganda Bureau of Statistics
<b>UBTEB</b>	Uganda Business and Technical Examinations Board
<b>UGAPRIVI</b>	Uganda Association of Private Vocational Institutions
<b>UIA</b>	Uganda Investment Authority
<b>UK</b>	United Kingdom of Great Britain and Northern Ireland
<b>UNABCEC</b>	Uganda National Association of Building and Civil Engineering Contractors
<b>UNBS</b>	Uganda National Bureau of Standards
<b>UNEB</b>	Uganda National Examinations Board
<b>UPIK</b>	Uganda Petroleum Institute at Kigumba
<b>URA</b>	Uganda Revenue Authority
<b>UTC</b>	Uganda Technical College
<b>VSO</b>	Voluntary Service Overseas
<b>VTI</b>	Vocational Training Institute
<b>WSDSP</b>	Workforce Skills Development Strategy & Plan



# Executive Summary

The purpose of the Workforce Skills Development Strategy & Plan (WSDSP) is to maximise the quantity and quality of employment opportunities for Ugandans in Oil & Gas and related sectors.

**T**he WSDSP sets out the activities required to close the gap between skills demand and supply in Oil & Gas and related sectors, detailing who is responsible for implementation and the sources of funding for each activity. The WSDSP covers the period from 2015 to 2025 and is split into a series of short-term (2015 and 2016), medium-term (2017 to 2019) and long-term (2020 to 2025) activities. The WSDSP was developed in conjunction with a wide range of key stakeholders through a series of consultative workshops held in January and February 2015.

**The WSDSP has eight objectives, namely:**

1. To enhance coordination and joint working between Government, International Oil Companies, Training Providers and other stakeholders.
2. To ensure that all Oil & Gas related skills training within Uganda is accredited and meets a pre-agreed set of international quality standards.
3. To enhance communications and information sharing on Oil & Gas Skills requirements including the development of improved Labour Market Information relevant to the needs of the sector.
4. To ensure that all additional Level 1 jobs created in Oil and Gas and related sectors go to Ugandans between 2015 and 2025.1
5. To ensure that 10,000 Ugandans secure an industry relevant and recognised Level 2 qualification by 2025.
6. To ensure that 2,000 Ugandans secure an industry relevant and recognised Level 3 qualification by 2025.
7. To ensure that 1,000 Ugandans secure an industry relevant and recognised Level 4 qualification by 2025.
8. Ensure that adequate funding and financing mechanisms are put in place to achieve objectives 1 to 7 of the WSDSP.

The total estimated cost of implementing the WSDSP between 2015 and 2025 is £120 million.

By achieving these 8 objectives the WSDSP will enable Uganda to successfully address the two concurrent challenges identified in the Demand and Supply Assessment, namely:

- 1. How to utilise and adapt existing skills in the Ugandan labour market in construction and related trades in order to meet the short-term (2016-2020) peak in Oil & Gas related employment.**

It is important to stress that regulations on labour mobility within the East African Community (particularly between Uganda, Kenya and Rwanda) means that citizens of these countries have the right to compete for employment with each other and live and work in each other's countries without discrimination. This free movement of labour provides a significant opportunity for Uganda. By implementing the WSDSP as planned then Uganda and Ugandans will be well placed to provide skilled labour across the East African Community. Conversely a failure to ensure rapid implementation of the WSDSP could mean that skilled Oil & Gas jobs in Uganda are taken by nationals of the wider East African Community due to a lack of relevant skills in the local labour market.

- 2. Building long-term specialised oil and gas technical skills for post 2020 Production Phase so that Uganda has made significant strides towards nationalising its' Oil & Gas industry by 2025.**

By promoting high quality, internationally accredited and industry-relevant training the WSDSP can play an important role in creating a vibrant training market in Uganda whose benefits will be felt in sectors beyond Oil & Gas.

Uganda is at a key juncture in the development of its Oil & Gas industry. If the WSDSP is implemented as planned then Uganda has an excellent opportunity to develop both its skills base and its economy, becoming a major regional player in Oil & Gas skills development.

## Introduction and Purpose of Workforce Skills Development Strategy & Plan.

The purpose of the Workforce Skills Development Strategy & Plan (WSDSP) is to maximise the quantity and quality of employment opportunities for Ugandans in Oil & Gas and related sectors.

In order to achieve this purpose the Government of Uganda commissioned a team to quantify the number of jobs required in oil and gas and related sectors over the next 10 years. These jobs are disaggregated by the required qualification level, discipline, occupational area and necessary years of experience in order to provide a detailed picture of labour requirements. The team also conducted an assessment of the current levels of skilled labour supplied in Uganda by institution-based training providers, industry-based training programmes and by the labour market pool.

This Supply and Demand Assessment identified the current gap between the skilled labour required by oil and gas and related sectors in Uganda and the key issues constraining the expansion of supply to meet demand.

The WSDSP sets out the activities required to close this gap between demand and supply, detailing who is responsible for implementation and the sources of funding for each activity. The WSDSP covers the period from 2015 to 2025 and is split into a series of short-term (2015 and 2016), medium-term (2017 to 2019) and long-term (2020 to 2025) activities. The WSDSP was developed in conjunction with a wide range of key stakeholders through a series of consultative workshops held in January and February 2015. It was then discussed across Government in March 2015 and formally presented at a Stakeholder Validation Workshop in April 2015. Details of consulted stakeholders who have inputted ideas and assisted in the development of the WSDSP are listed in Annex One.

**Section 1** provides an overview of Uganda's Oil & Gas industry and explains the Government of Uganda's key policy objectives for both Oil & Gas and Skills Development.

**Section 2** of the WSDSP explains the methodology used to assess skills demand and supply for Oil & Gas and related sectors. It summarises the nature and extent of the gap between supply and demand and highlights the major issues which contribute towards this gap and constrain the expansion of supply to meet demand.

**Section 3** provides a summary of the purpose and objectives of the WSDSP and frames this within the context of Uganda's National Oil and Gas Policy and related legislation. It also details the Key Performance Indicators (KPIs) which will be used to measure the WSDSP's successful implementation.

**Section 4** provides details of the specific activities in the WSDSP to address the key cross-cutting constraints to expanding skills supply across all four qualifications levels (Level 1-4), namely:

### 4.1 Institutional Architecture and Coordination

**Mechanisms:** This section establishes clarity of roles and responsibilities of various stakeholders and explains the strategic oversight and coordination mechanisms which will be used to ensure an effective partnership approach so that the WSDSP will be owned by stakeholders with a relentless focus on successful implementation.

**4.2 Accreditation and Standards:** Standards ensure consistency and quality within the industry so that

employers have the confidence that qualification holders have the skills and competencies required to work safely and effectively in the Oil & Gas industry in Uganda. This section explains how the Government of Uganda, working in collaboration with IOCs, will take the lead in determining which standards to use for each qualification level and occupational area so that training providers can put plans in place to meet these standards and deliver industry relevant qualifications.

### 4.3 Communications and Information Sharing:

Sharing accurate and timely information on the job opportunities and skills required to work effectively in the Oil & Gas and related sectors in Uganda is essential if the WSDSP is to be successfully implemented. This section explains the WSDSP's Communications Strategy for raising awareness amongst members of the public as well as with key stakeholders and individuals and groups with a particular interest in securing employment in the Oil & Gas industry. It also explains the activities which will be taken to enhance knowledge and learning of skills issues within the sector and to improve the availability of relevant labour market information.

**Section 5** provides details of specific activities in the WSDSP to expand skills supply at qualifications Levels 1 through to Level 4, namely:

**5.1 Addressing constraints at Level 1 (Entry Level and Basic Skills):** Setting out activities to ensure that a sufficient number of Ugandans acquire Health & Safety certification and other basic entry level qualifications to enable them to take up the significant number of Level 1 jobs identified in the demand assessment.

**5.2 Addressing constraints at Level 2 (Trades and Crafts):** Setting out activities to close the significant gap between the demand for jobs requiring Level 2 qualifications in construction and related trades and the predicted institutional supply of skills. These activities include plans to expand private sector and industry-based training as well as improving the quality and relevance of institution-based provision against a set of agreed international industry-approved standards.

**5.3 Addressing constraints at Level 3 (Technician level):** Setting out activities to expand technician-level provision to ensure that UPIK produces high quality and industry-relevant graduates. In addition this section sets out a range of measures to expand industry-based provision and on-the-job training in order to maximise the number of Ugandans with the qualifications needed to secure the almost five thousand technician-level jobs predicted to be created over the next ten years.

**5.4 Addressing constraints at Level 4 (Engineer and Managerial level):** Setting out activities to forge stronger linkages between universities and industry so that Level 4 provision is of sufficient quality and relevance to meet employers' needs. These activities constitute a long-term strategy to ensure that Ugandans are able to take up senior roles within the country's Oil & Gas industry.

**Section 6** sets out the financing and funding mechanisms which will be used to deliver the activities set out in Sections 4 and 5. It details the overall amount of funding required by specific activity stream and the sources and means of funding for each area.

**Section 7** is a detailed WSDSP work plan which sets out, in Gantt chart format, the specific activities and sub-activities required to deliver the WSDSP with timings and named responsibility for each activity. It details the short-term, medium-term and long-term activities for each area so that the immediate priorities are clear in order to assist planning and implementation.

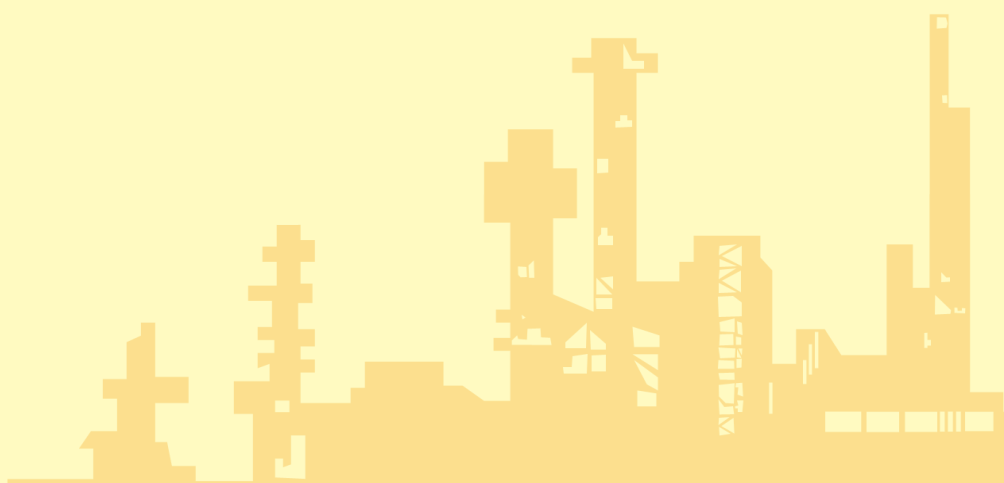
**Section 8** explains how the work plan will be monitored so that the Government of Uganda is able to measure progress in relation to the KPIs set out in Section 1.



# SECTION 1

---

Oil And Gas In Uganda - Progress  
To Date And Policy Objectives



## 1.1 Current Status of the Oil and Gas Industry in Uganda

Whilst oil seeps in Uganda were first reported along the shores of Lake Albert in the 1920s, the petroleum industry in Uganda is a relatively young one with the Government commencing systematic training and capacity building of staff in petroleum related studies in the late 1980s.

In 1985 the Petroleum Exploration and Production Act was enacted followed by related Regulations in 1993 and the establishment of the Petroleum Exploration and Production Department (PEPD) in the Ministry of Energy and Mineral Development.

Over the last twenty years Uganda has implemented successful efforts to promote its petroleum potential. In 2001 licensing of exploration areas began and this led to a period of intensified exploration activity. Results from this programme have been extremely successful, resulting in a total of 21 oil and/or gas discoveries since 2006. 116 exploration and appraisal wells have been drilled with 102 wells encountering oil and/or gas, an unprecedented drilling success rate of 88%. The estimated in-place volume of petroleum is now in excess of 6.5 billion barrels of stock tank oil initially in place with recoverable reserves estimated at 1.4 billion barrels, and proven gas reserves at 350 billion cubic feet. These volumes are deemed sufficient to support commercial production for the next 30 years, even assuming no additional discoveries are made.

The impact of oil on Uganda's economy is potentially highly significant. Peak production is currently predicted to occur at or around 2020 with an estimated output ranging from 120,000 to 210,000 barrels per day. The government is planning for production to commence from 2017 following the construction of a mainland refinery with an initial capacity of 30,000 barrels per day which will then be scaled-up to 60,000 barrels per day. It is also anticipated that the construction of a crude export pipeline to Lamu, Kenya will enable the exportation of crude oil. It is estimated that Uganda could potentially earn \$57 billion by 2040 if assumptions regarding the timing and scale of production are achieved together with an average crude oil price of \$70 over the period (IOM, 2014).

Most of the activity surrounding the nascent oil industry is in the Albertine Graben, in the western part of Uganda bordering the Democratic Republic of Congo. The Government of Uganda has signed contracts with international companies to exploit those exploration areas which are considered to have potential. The oil companies currently licensed in Uganda are Tullow Uganda Operations Pty Limited, Total E&P Uganda B.V. and China National Offshore Oil Company (CNOOC) Uganda Limited. These companies operate with equal shares under a joint venture agreement. A further round of licensing began in 2015 and more international companies are expected to commence operations in Uganda in the coming years.

## 1.2 Ugandan Policy Objectives and Related Legislation.

Oil and Gas has the potential to generate transformational benefits for Uganda, impacting economic growth, poverty reduction and the development of a skilled and productive workforce contributing to value creating activities across the entire Ugandan economy. The National Oil & Gas Policy, Petroleum Acts, National Content Policy and National Development Plan provide a clear vision and firm framework for the Ugandan government to achieve its goal of using the country's oil and gas resources to contribute to early achievement of poverty eradication and create lasting value to society.

The National Oil and Gas Policy for Uganda (NOGP), approved by Cabinet in 2008, sets out how Uganda aims to **use the country's oil and gas resources to contribute to early achievement of poverty eradication and create lasting value to society**. The NOGP has ten objectives. The two objectives with the most relevance to the WSDSP are:

- **Objective 7.** To ensure optimum national participation in oil and gas activities
  - (f) Promote employment of Ugandans in the oil and gas sector.
  - (g) Promote transfer of skills and technology to the country.
- **Objective 8.** To support the development and maintenance of national skills and expertise
  - (a) Identify the training skills required for the sector and plan for their development through both formal and industrial training.
  - (b) Utilise oil and gas activities in the country to support provision of the necessary training.
  - (d) Provide appropriate training to Government personnel in the relevant fields as one of the ways to facilitate professional dialogue with oil companies.
  - (e) Broaden the national education curricula to prepare the necessary workforce for the growing oil and gas sector in the country.
  - (f) Promote the development of skills during the implementation of oil and gas activities.

In line with the NOGP, two pieces of legislation, the Petroleum (Exploration, Development and Production) Act 2013 and the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013 were enacted. Development of regulations to operationalise specific aspects of these Acts is ongoing and will be concluded shortly.

The Government of Uganda has developed a National Content Policy for the Petroleum Sector in Uganda. This policy builds upon objectives 7 and 8 of the NOGP and relevant parts of the two **Petroleum Acts to provide the policy framework to increase national participation in the petroleum value chain for the benefit of the petroleum sector itself, the economy and the society at large**. The first main objective of the National Content Policy is to build the capabilities of Ugandan human resources and businesses to effectively participate in petroleum operations.

**The Policy states that:**

To achieve this policy objective, the Government will endeavour to increase the number of Ugandans with professional skills suited to work for the petroleum sector. Their skills must match petroleum sector requirements on many levels and must be credibly certified.

The main impediment to employing a larger share of Ugandans in the petroleum sector is a shortage of personnel with adequate education and adequate work experience. The main thrust of the Ugandan national content effort shall therefore be directed at building the capabilities of Ugandan personnel for contributing effectively to petroleum operations.

In relation to Skills Development, 'Skilling Uganda' is the Government of Uganda's Business, Technical and Vocational Education and Training (BTNET) Strategic Plan for 2011-2020. The Plan sets out the aim of bringing about a paradigm shift in BTNET so that it develops into a comprehensive system of skills development for employment, enhanced productivity and growth.

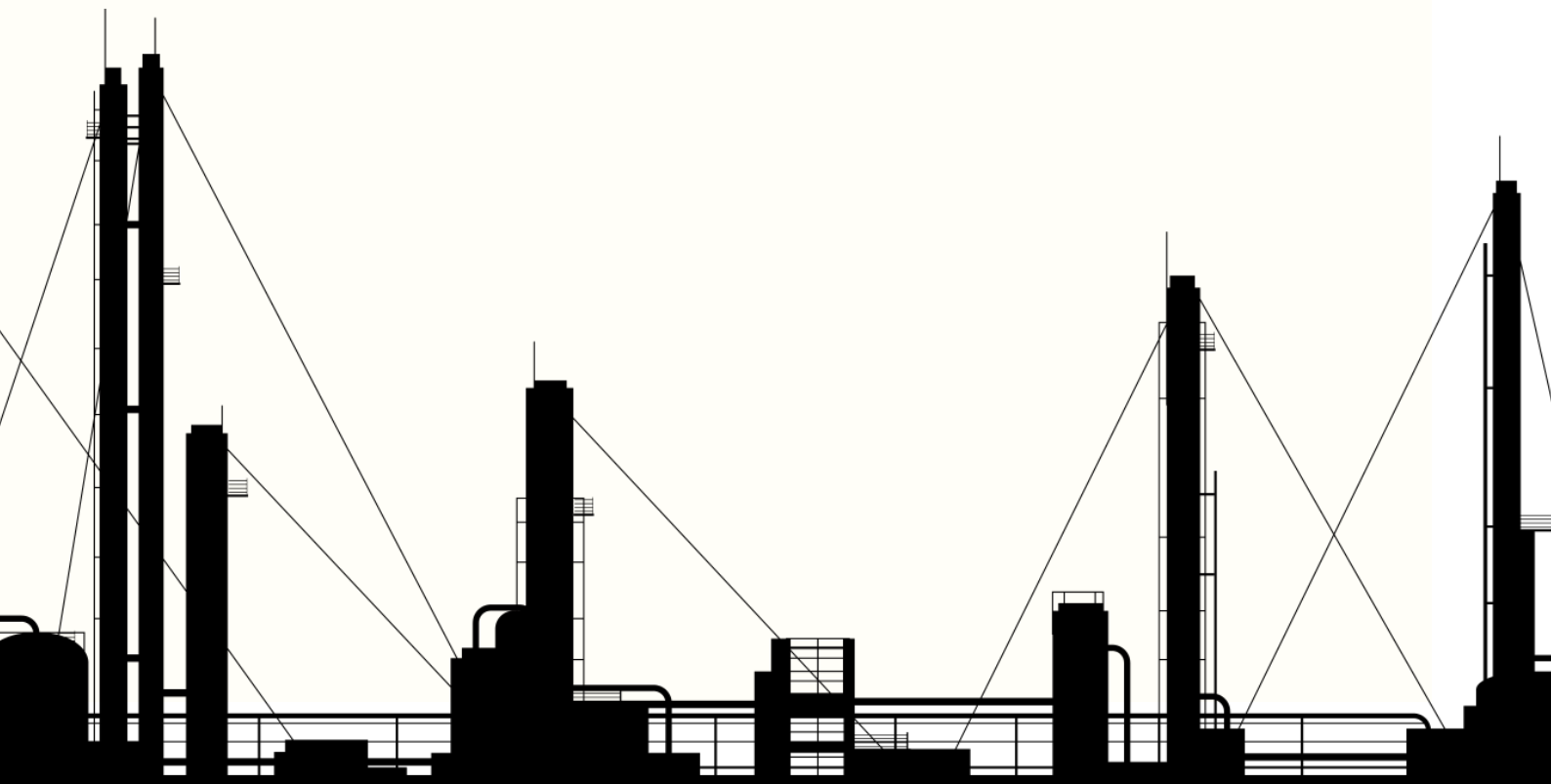
'Skilling Uganda' is implemented under the leadership of the Ministry of Education, Science, Technology and Sports (MoESTS) but the expanded mandate for BTNET set out in the Plan requires broader partnerships for successful delivery. A Reform Task Force (RTF) comprising members of the public and private sector has therefore been formed to oversee implementation of the Plan while Uganda's Skills Development Authority (SDA) is being established. This is scheduled to take place by 2015/16. The SDA will be an autonomous body to involve stakeholders, especially employers, in directing and evaluating the training system.

Oil & Gas is a priority sector for skills in Uganda and so can act as a pilot and a guide for other sectors in the way it approaches skills development. The activities set out in the WSDSP are therefore designed to be consistent with the approach set out in 'Skilling Uganda'. The WSDSP therefore provides a sector-specific model for a demand-led skills system based around strong partnerships between employers and training providers.

---

**Government will endeavour to increase the  
number of Ugandans with professional skills  
suited to work for the petroleum sector.**

---



# SECTION 2

---

Oil & Gas Skills Demand and Supply Assessment:  
Key Issues and Findings



In order to support achievement of the objectives set out in the National Oil & Gas Policy the Government of Uganda conducted a review of Skills Demand and Supply for the Oil & Gas industry and related sectors in Uganda in late 2014 and early 2015. During the course of the review the assessment team:

- Estimated labour market needs in Oil & Gas and related sectors over the next ten years (from 2015 to 2025);
- Identified the human resource that is currently being supplied by various education institutions, oil and gas enterprises and training providers;
- Identified the quantitative and qualitative 'gap' that exists between current supply and future demand.

The study was carried out through a participatory process with government, training providers (Public and private universities, UTCs, VTI's and industry based training providers among others), International Oil Companies, Oil and Gas service companies and other relevant employers. These discussions were underpinned by two quantitative studies, one on the demand side and the other on the supply side.

For the demand side Mott MacDonald collected information from employers in Uganda regarding workforce requirements and skills demands and also made reference to the Industrial Baseline Survey (IBS) conducted by Schlumberger on behalf of the three Joint Venture companies. In many cases detailed information on workforce skills requirements was not available as many of the contractors and sub-contractors who will work in Uganda had not yet been selecting. Mott MacDonald therefore used its international in-house Oil & Gas expertise to generate workforce skills requirements from the bottom-up in order to fill existing data gaps. Based on guidance from the Ministry of Energy and Minerals (MEMD) and other stakeholders the infrastructure developments included in the demand assessment are set out in Table 1 overleaf.

**Table 1: Infrastructure Developments included in demand assessment estimates**

PETROLEUM SECTOR	Upstream	Midstream	Downstream
	<b>Exploration</b> All the activities to be undertaken prior to issuance of production licenses at the Existing Fields; all the activities to support the Kingfisher field development; and all the development activities at Future Licenses.	<b>Transportation</b> Construction and O&M of the Crude Pipelines (fields to refinery-Northern and Southern Route), Product Pipeline (refinery to distribution centre), Export Pipeline.	<b>Distribution by trucks</b> Transport of refined products to wholesalers or gas stations across Uganda by trucks.
	<b>Development</b> Oil Field Facilities Construction, including CPFs and well pipelines.	<b>Refining</b> Phased Construction and O&M of the Refinery (Phase 1: throughput 30,000 bpd, Phase 2: throughput 60,000bpd) processing crude oil into different fractions, such as liquefied petroleum gas (LPG), petrol, diesel, jet fuel, kerosene, and heavy fuel oil (HFO).	<b>Bulk and Storage Terminal</b> Construction and O&M of intermediate storage and distribution of refined products close to the market (Buloba, near Kampala).
	<b>Production</b> O&M of the Oil Field Facilities, including CPFs and well pipelines.	<b>Storage</b> Construction and O&M of the Intermediate Storage of crude oil and refined products at the refinery (developed and operated as part of the refinery)	<b>Marketing</b> Marketing to the wholesale /distribution companies and general public  <b>Sales</b> Sales activities through a number of channels, e.g. jet fuel to airports, gasoline to gas station owners, diesel oil for distribution to generators, industrial usage etc.



<b>OTHER RELATED SECTORS</b>	<b>Construction</b> (Extracted from Petroleum Sector Estimates)
	<b>Operation &amp; Maintenance</b> (Extracted from Petroleum Sector Estimates)
	<b>Logistics and Transport</b> All the activities required to transport material, equipment and people in line with the Construction and O&M projects and with particular focus on drivers. (Extracted from Petroleum Sector Estimates).
	<b>Catering and Camp Management</b> All the activities related to grocery procurement, preparation and delivery, housekeeping and laundry services, camp management and support services.
	<b>Security</b> All the activities aimed at protection of the oil and gas assets from intrusion, both inside and outside the fence.
	<b>Disposal of Hazardous Waste</b> All the activities required to treat, store and dispose hazardous waste generated as a result of oil and gas exploration and development, representing potential threat to public health or the environment.
	<b>Uganda National Oil Company (UNOC)</b> Establishment of an organization required to facilitate the management of growing oil and gas activities in Uganda.

For the supply side a survey of Universities, Uganda Technical Colleges (UTCs) and Vocational Training Institutes (VTIs) was carried out in November 2014 to develop a fuller picture of the qualifications offered, tuition methods, number of students, drop-out rate, availability and qualifications of tutors and availability of equipment. Two questionnaires were developed and administered by a team of trained researchers in 35 institutions (7 Universities, 5 UTCs and 23 VTIs) selected at random from a list provided by the MoESTS.

The key findings of the Demand and Supply Assessment, which provides an evidence base for the activities in this WSDSP, are summarised in the paragraphs below.

## 2.1 Key Findings of the Oil & Gas Skills Demand Assessment

The Demand Assessment broke down labour requirements by Discipline and Occupational Area (e.g. petroleum engineering, welding, driving etc.) and qualifications level. Four qualifications levels, linked to the Ugandan Vocational Qualifications Framework, were used to classify job roles. These four levels are set out in Table 2 below.

**Table 2. Description of Qualifications Levels used in assessment**

Level	Knowledge	Skills	Competence
<b>4 Engineers &amp; Managers</b>	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.
<b>3 Technicians</b>	Factual and theoretical knowledge in broad contexts within a field of work or study.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	Exercise self-management within the guidelines of work or study contexts that are usually predictable but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.
<b>2 Trades &amp; Craft</b>	Knowledge of facts, principles, processes and general concepts in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems.
<b>1 Basic Skills &amp; Entry Level</b>	Basic general knowledge	Basic skills required to carry out simple tasks.	Work or study under direct supervision in a structured context.

The Demand Assessment showed that there will be very rapid demand (within the first two to three years of commencing development) for labour at qualifications Levels 1, 2 and 3 within Oil and Gas and related sectors, particularly construction, logistics & transport and catering & camp management services. Level 4 engineering and managerial positions will be created but not in such significant numbers. Whilst increasing the number of Ugandans in industry-relevant Level 4 and Level 3 positions is part of a medium and long-term nationalisation strategy, the bulk of Level 2 and Level 1 jobs created are going to be short-term and in sectors such as construction, hospitality & catering and security which are outside of the 'core' Oil & Gas Sectors. The WSDSP needs to take account of this dynamic when putting strategies in place to meet demand.

In order to have an indication of precisely when in the development cycle these manpower demands will peak we have presented the information in graphical form in

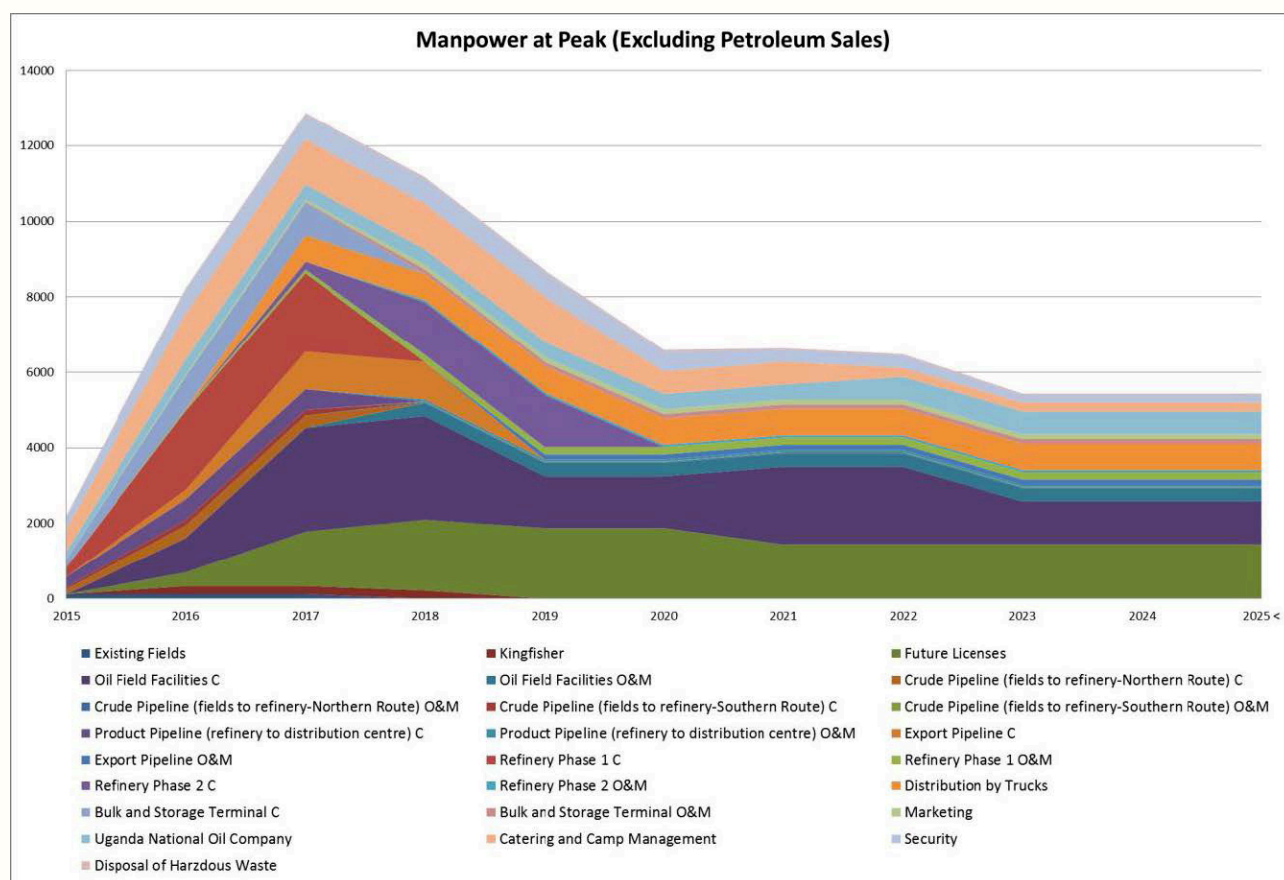
Figure 1. This shows that manpower demand peaks at the

end of the 2nd year in the cycle with a figure of just over 14,000 jobs.

This figure takes into consideration the phasing cycle and represents a 'snapshot' of the labour requirements for each phase on a year by year basis. Demand peaks in 2017 before falling away by 2020. Petroleum Sales are excluded from this graph as their inclusion has a disproportionate effect on the overall shape of the employment profile.

It is worth noting that there is no one 'correct' number for the human resources demanded by oil & gas and related sectors. The precise number of people required depends on a number of factors many of which are under the influence of government and other stakeholders to influence depending on their policy goals. The quantified breakdown of human resources demand produced in this analysis is a baseline figure taking into account the assumption that the resources are both adequately trained and experienced for the tasks they are required to perform.

**Figure 1: Manpower at Peak (Excluding Petroleum Sales)**



Source: MML

The next stage of the analysis was to consider a realistic number of additional jobs broken down by discipline, occupational area and qualification level within the Ugandan context where the government has a stated policy to increase national participation in the oil and gas industry. In this scenario it is estimated that a realistic target number of additional jobs over the next ten years could peak at approximately 29,250, i.e. 20% higher than the baseline figure set out in the graph and analysis above. This takes into account the likely impact of measures such as on the job mentoring, training and apprenticeships which can be put in place over the coming years. Table 3 breaks down these additional jobs by required qualifications level.

**Table 3: Headline Additional Jobs required in prioritised sectors and sub-sectors by Qualification Level**

Qualification Level	Estimated additional jobs
Level 4: Engineers and Managers	1,810 or 6%
Level 3: Technicia	4,836 or 17% (2,819 excluding petroleum sales)
Level 2: Trades and Craft	11,059 or 38% (10,430 excluding petroleum sales)
Level 1: Basic Skills & Entry Level	11,551 or 39% (7,150 excluding petroleum sales)

Source: Mott MacDonald

The most striking aspect of these headline figures is the significant (11,059 or 38% of total) number of additional jobs requiring Level 2 (Trades & Craft) qualifications. The demand for many of these Level 2 jobs is almost immediate as the peak demand period is during the construction phase from 2016 to 2018. A similar number of jobs (11,551 or 39% of total) are also likely to be created which are at Level 1, requiring basic skills or entry level qualifications.

Setting aside Petroleum Sales & Marketing the 5 Occupational Areas predicted to have the highest numbers of additional jobs are:

1. Civil/Structural Engineering 7,396
2. Driving 1,810
3. Mechanical Technician 1,358
4. Welding 1,308
5. Hospitality & Catering 1,162

The Occupational Areas with the highest number of predicted jobs by Qualifications level are set out in Table 4 below.

**Table 4 Occupational Areas with the highest number of predicted jobs by Qualifications level.**

<b>Level 4 Engineers &amp; Managers</b>	<b>Level 3 Technicians</b>	<b>Level 2 Trades &amp; Craft</b>	<b>Level 1 Basic Skills &amp; Entry Level</b>
Civil/Structural Engineering (340)	Mechanical Technician (722)	Civil/Structural Engineering (3,112)	Civil / Structural Engineering & related Labourers (3,902)
Mechanical Engineering (152)	Instrumentation Technician (465)	Driving (1,810)	Hospitality & Catering (1,071)
Control Centre Operations (121)	Logistics & Supply Chain Management (314)	Welding (1,230)	Security (915)
Geological Engineering (112)	Electrical Technician (280)	Scaffolding (701)	Drilling Rig & related Labourers (645)
Maintenance Engineering (103)	Drilling Rig Operator / Technician (187)	Mechanical Technician and related trades (636)	Field Production (280)

At a headline level, the vast majority of jobs (91%) require between 0-2 years and 2-5 years of relevant experience. At first glance this appears encouraging as it suggests that there may well be a relatively short lag time between individuals undergoing training and becoming 'work ready' for the positions required within priority sectors. However the picture shifts when experience requirements by the qualification level required are disaggregated for each job role. This breakdown shows that the majority of jobs at Levels 2 and 3 (73% and 74% respectively) require a minimum of between 2-5 years of experience whilst the majority of jobs at Level 4 (62%) require a minimum of 5-10 years. It is only the Level 1 basic skills and entry level roles where the majority of positions (89%) can be filled by individuals with less than 2 years' experience.

When considering the training time required to gain qualifications prior to these minimum experience requirements it is clear that it will take a number of years before fresh graduates of universities and technical training institutes are able to be productive in their anticipated roles.

In addition to the direct jobs set out in the analysis above a wide range of industries will be boosted by oil and gas projects offsite such as environmental services, manpower agencies, agro-processing, etc. Jobs generated by these activities qualify as indirect jobs and these are outside the scope of the present assessment. Beyond direct and indirect jobs, many jobs will be 'induced' by oil and gas activities. 'Induced' refers to wealth generated through the redistribution of oil revenues in the local economy. This distribution happens either naturally through individuals spending the money earned through oil and gas projects or deliberately with the Government distributing oil revenues in other industrial projects such as infrastructure development. This re-investment of oil and gas revenues in the economy will induce jobs in diverse sectors across the entire Ugandan economy.

It is worth noting that the distinction between what is classed as a 'direct' or an 'indirect' job is not set in stone. For the purposes of this assessment jobs outside of the core Oil & Gas sectors but which are directly linked to these sectors have been classed as 'direct' jobs.

For example security personnel who will be directly responsible for ensuring the safety and integrity of the refinery and pipeline have been included as 'direct' jobs as have the truck drivers who will be directly involved in transporting construction materials to the refinery and pipeline sites. Farmers and small business people who will benefit from providing food produce to workers have not been included as these numbers as they are more difficult to quantify with any degree of accuracy and their linkage to the Oil & Gas sectors is considered for the purposes of this study to be 'indirect' as they are not totally reliant on the facilities for their livelihoods.

It is also worth noting that a good number of the 'direct' jobs created by the Oil & Gas industry fall in sectors such as construction, transportation, security, hospitality & catering etc. where the impact of improved skills, training and productivity will be of benefit to the wider Ugandan economy beyond the Oil & Gas industry.

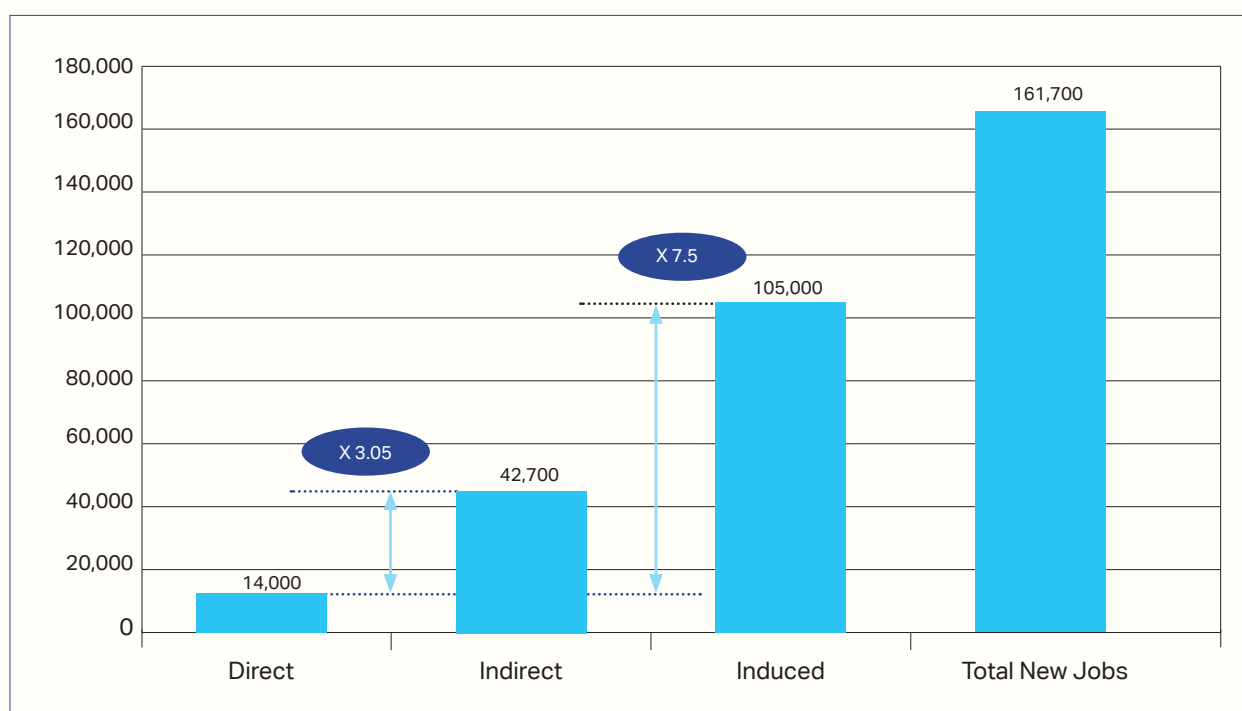
To estimate the number of indirect and induced jobs created from direct jobs,

the Demand Study used average coefficient (ratio) taken as a reference from IBS analysis, which varies from 2.3 to 3.8 when moving from direct to indirect employment and from 6.6 to 8.4 (depending on the geography) when moving from direct to induced employment. The study noted that the same average coefficient or ratios were used to estimate the indirect and induced jobs created as result oil and gas activities in Macae (Brazil), Trinidad and Tobago, Aberdeen (UK) and Stavanger (Norway). This study used an average ratio of 3.05 when computing indirect employment estimates from direct employment and an average ratio of 7.5 was used while computing induced employment estimates from direct employment.

By applying these average coefficients to the peak estimate of 14,000 jobs (which takes into consideration phasing),<sup>2</sup> the number of indirect jobs created could represent about 42,700, while the induced jobs could represent about 105,000 jobs.

**Figure 2 Estimated total number of direct, indirect and induced jobs**

For clarity, the average coefficient has been used for the numerical value representing a peak of 14,000 jobs rather than the total peak of 24,400 as the 1st number indicates the likely peak taking into consideration phasing, while the 2nd number is a theoretical maximum which ignores the phasing.



Source: Mott MacDonald



## 2.2 Key Findings of the Oil & Gas Skills Supply Assessment

When assessing skills supply the assessment considered three major sources for workers, namely:

- **Institution-based training provision:** This includes training provided by the following public and private tertiary and secondary institutions: Universities, Uganda Petroleum Institute at Kigumba (UPIK), Uganda Technical Colleges (UTCs), Vocational Technical Institutes (VTIs); and Secondary Schools
- **Industry-based programs: Industry-based private education and training providers include:** the three current IOCs- Total, CNOOC and Tullow Oil - and any new Joint Venture partners in the next licensing phase; their Engineering, Procurement and Construction (EPC) contractors and other specific sub-contractors along the petroleum Value Chain; local Ugandan firms who partner with international sub-contractors; and private sector training providers such as Q-Sourcing and OGAS.
- **The Labour Market Pool and Informal Sector Training:** The IOCs, EPCs, and international and local contractors need to identify and train workers drawn from the current labour market as soon as possible if they are going to meet their human resources needs and maximize local content. The informal sector is a major source of employment in Uganda and there are a number of non-formal providers who work closely with the self-employed micro and small-scale enterprises which make up the bulk of informal sector employment. These non-formal providers are relevant to this particular study because there are a number of occupational areas such as carpentry, painting and welding where informal sector training provision plays a significant role.

of jobs available for Ugandans. Increasing the quantity of provision has to be a priority but it is important to note that, in the course of this assessment, quality and relevance of provision are identified as in many ways more serious issues than quantity. Given uncertainties over the relevance of some qualifications and the current lack of international qualification standards it is highly likely that a good number of the graduates of certain institutions will not be considered to have the full range of competencies required by employers in the oil and gas sectors.

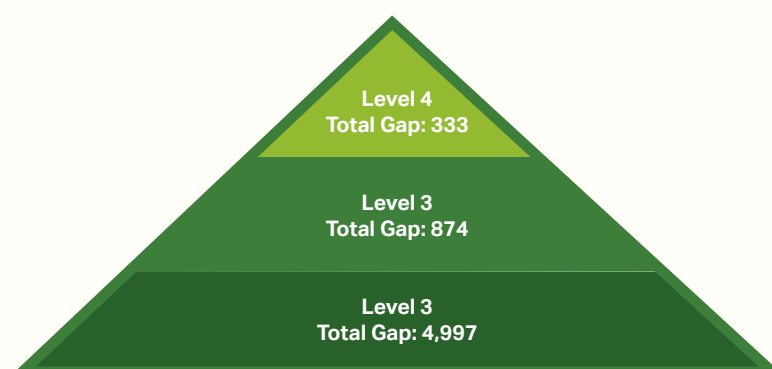
There is also the important issue of the timing of demand and supply. The number of additional jobs across many occupational areas is likely to peak within the next three years (rendering comparisons with the 10 year supply of graduates misleading). Then there is the issue of experience. A good number of the additional jobs created, particularly those requiring Level 3 and Level 4 qualifications, require the post holder to have gained several years of relevant post-qualification experience before they can be deemed 'work ready' in that particular post.

All three of these factors: the rapid peak in demand for additional jobs; the lag time between gaining a qualification and having the required years of experience; and uncertainties over quality and relevance of provision mean that in reality the quantitative gap between demand and supply is more significant than the figures presented overleaf indicate.

The supply assessment identified quantitative and qualitative gaps in the skills supply system (encompassing all three sources of workers described above) which need to be urgently addressed within the WSDSP in order to maximise the quantity and quality

At a headline level, **solely taking into account the data which the assessment team was able to gather on institutional provision**, the size of the gap between supply and demand is as set out in **Figure 3**.

**Figure 3: Headline quantitative gap between institutional supply and demand.**



It is important to note that this is the **gap only taking into account institutional provision for which the assessment team was able to gather data**. It does not take account of the quality and relevance of provision which is liable to exacerbate the gap. It is also important to note that this gap analysis does not take account of industry-based provision or skills in the labour market due to the lack of accurate data for these areas of provision. This is an important consideration as industry-based provision and the labour market have a key role to play in closing the quantitative gap in provision identified during this institutional analysis. The headline analysis presented here highlights the urgent need to address skills gaps at Level 2 and Level 3 in particular through industry-based provision and the labour market.

Reorienting the entire vocational training system to focus on the Oil & Gas sector which, in national terms, is producing a relatively small number of additional direct jobs (fewer than 30,000) does not make good policy sense. The specific, specialised skills required by the oil and gas industry are best provided by industry-based training. It is these employers who know precisely what is required and therefore they are best placed (working in partnership with providers where appropriate) to deliver relevant, high quality specialised training. This is an important general principle in skills development- that national institution based provision is most effective at laying the foundations for general employability skills within the population at large whilst specific, industry-led provision is most effective at addressing niche, specialist needs and keeping up to speed with the often rapid technological changes within an industry.

In Uganda therefore the national institution-based education and training system is not set up (nor would it be appropriate) to quickly respond to the current acute skill shortages at technician (Level 3) and trade & crafts (Level 2) that the Oil & Gas sector faces. The private sector and employer-based provision is best placed to provide the quick response and "fix" that is needed to address these skill shortages in the short-term.

Looking specifically at institution-based training provision it is anticipated that universities will provide entry-level managers/engineers at Qualification Level 4. UPIK will play a major role in producing upstream, midstream, and downstream technicians at Qualification Level 3. UTCs and VTIs should in theory produce large numbers of construction workers at Qualification Level 2. UTC diploma programmes might also feed graduates into technician level, industry-based programmes for Oil & Gas company specific processes and equipment. Finally, VTIs and secondary schools would also provide workers at Qualification Level 1.

At Level 4, significant quantitative institutional supply gaps are predicted for Control Centre Operations, Geological Engineering and Petroleum Engineering. These are all specialist oil and gas related occupational areas where provision either does not currently exist or is not considered of sufficient relevance to the needs of employers. Institutions will need to work closely with IOCs to fill these gaps whilst, in the short-term, providing scholarships and opportunities for talented Ugandans to

study these courses at international institutions will go some way to alleviating immediate shortages.

At Level 3, significant quantitative institutional supply gaps are predicted across four of the five specialist technician areas with the largest predicted gaps those for Mechanical Technicians and Instrumentation Technicians. UPIK has been established to address specific skills requirements at technician level but it is clear from the analysis that, while UPIK has a chance of producing graduates of acceptable quality to the industry, it is not going to be able to generate the volumes necessary to address likely demand. The fact that UPIK cannot produce the required numbers and that it might only start to producing 90 maintenance graduates per year in 2017 strongly suggests the sector may need to look for other means of increasing the number of technician graduates. At Level 2, significant quantitative institutional supply gaps are predicted for Driving (specifically heavy goods vehicle and tanker driving within the oil and gas industry), Heavy Equipment Operators, Scaffolding and Instrumentation Technician and Related Trades. Across these four occupational areas no relevant institutional training within either UTCs or VTIs was identified. In the short-term at least industry-based training programmes and the existing labour market will have to respond to demand. Many of the skills required across these occupational areas are specific in nature (such as trades related to Instrumentation Technician) or require skills that go well beyond what is commonly practised in Uganda (two examples would be Scaffolding where the oil and gas industry requires metal scaffolds rather than the wood that is common place in Uganda and Driving where specific hazardous material carrying certification is required).

There are two further occupational areas- Welding and Painting- where institution based training does exist but where there are concerns that the numbers of people in institutions are too small and that the qualifications which they are working towards do not meet the high standards required by industry. More than 1,200 welders are required by the industry with the majority of these being needed within the next couple of years. This volume is beyond the level which institutions are currently producing. Getting sufficient numbers of welders accredited to the standards required will be a significant challenge and, in the short-term at least, will require work to accredit people with skills and competence in the existing labour market pool, providing them with short remedial training courses where necessary.

In summary the supply assessment suggests that there are going to be significant difficulties in addressing the identified demand for skills due to:

- A general lack of preparedness of graduates of institution-based training to operate at the standards required by industry.
- An insufficient number of graduates from industry-based training programmes to meet labour demands; and
- The lack of information about existing skills within the labour market and how these relate to demand.

At qualification Level 4, while some gaps remain, IOCs through their existing training plans have made provision for appropriate training for their own staff whilst universities in Uganda are producing sufficient numbers of graduates in disciplines such as civil engineering, mechanical and maintenance engineering to meet demand. Stronger linkages between universities and industries will need to be forged to ensure that provision is of sufficient quality and relevance to meet employers' needs. It must also be recognised that many Level 4 roles require a significant amount of work experience and that producing a significant number of Ugandans capable of taking on these roles is a long-term task.

At qualification Level 3, UPIK has the potential to produce high quality and industry-relevant graduates but, according to its current plans, it will only produce around 50% of the technicians required. Plans need to be put in place to expand the quantity of Level 3 provision whilst ensuring that it is of a high quality, to international standards and industry-relevant.

At qualification Level 2 there is a significant gap between short-term demand in construction and related trades and the predicted institutional supply of skills. There are, as of yet, no clear or convincing plans for private sector and industry-based training provision to bridge this gap. Urgent action to expand relevant private-sector provision, industry-based training and efforts to tap the existing skills and competencies within the labour market pool will all be required in order to meet demand. Utilising contractual and regulatory requirements to ensure that EPC contractors take responsibility for training and employing Ugandans with Level 2 skills will be an essential part of this strategy.

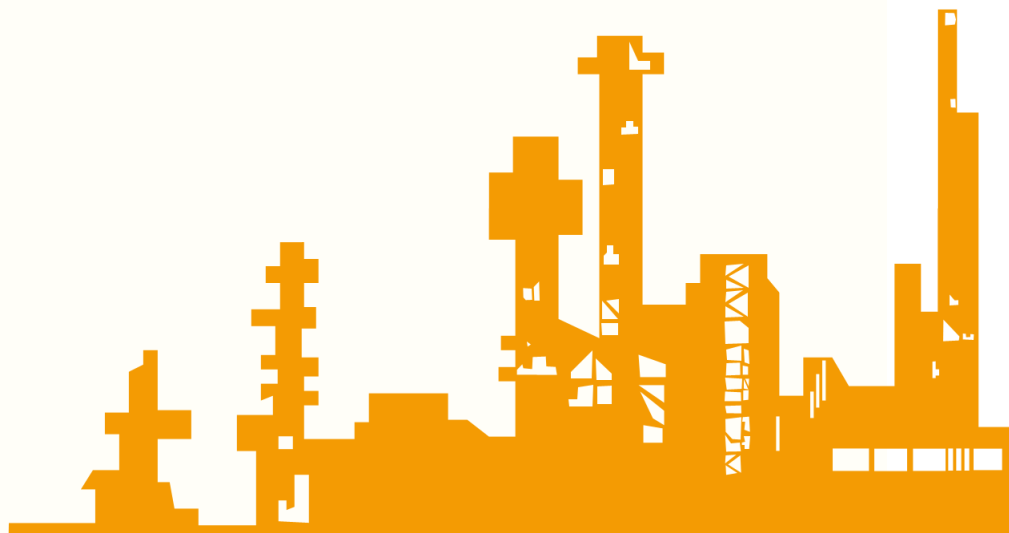
At qualification Level 1 there are a significant number of short-term jobs which don't require formal work-related qualifications. These roles will require the job holders to have Health & Safety certification and a basic command of the English language (which is the lingua franca of the IOCs in Uganda). These Level 1 roles should universally, without exception, go to Ugandan citizens. There are sufficient Ugandans in the existing labour market pool to take up these roles but, if the Government wishes to

ensure that local residents of the oil producing areas benefit from these opportunities, there will be a need for large-scale training programmes in English language and in Health & Safety certification.

The key issues constraining the ability of the supply side to address the current gap between demand and supply are:

- Lack of clarity over the strategic direction for Oil & Gas workforce skills development in Uganda which hinders cooperation and coordination.
- The need to develop relationships between Government and International Oil Companies which promote open and honest dialogue on workforce skills development.
- A lack of accurate information and inadequate communications on the details of jobs available in oil and gas and the qualifications required to secure these jobs. This is exacerbated by the fact that the identity of many future employers, such as EPCs and related sub-contractors, are not yet known.
- The limited number of Ugandan training institutions producing graduates to the international standards required by employers operating in the oil and gas industry.
- Lack of information on existing skills within the Ugandan labour market and how these relate to current demand in Oil & Gas and related sectors.
- Uncertainties over funding arrangements mean that the sources of finance and mechanisms to be used to address skills gaps are not clear.

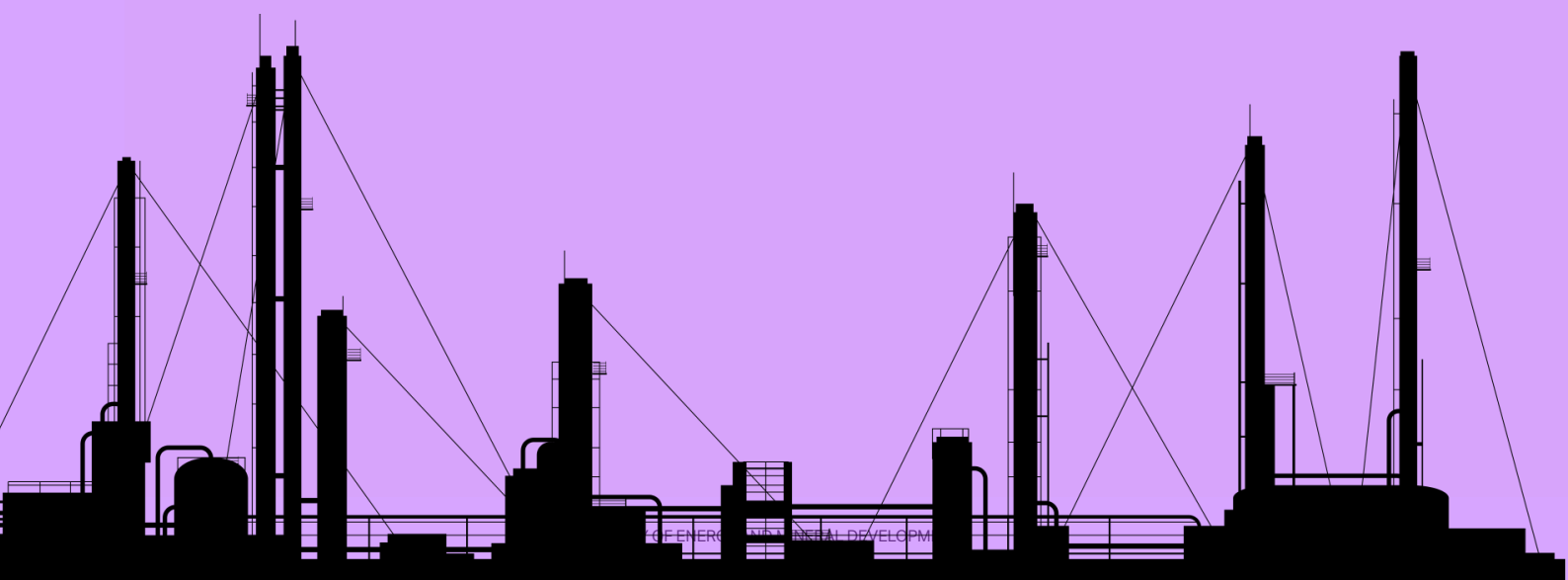
These issues are all addressed within the WSDSP. The key cross-cutting constraints of Institutional Architecture & Coordination Mechanisms, Accreditation & Standards and Communications & Information Sharing are addressed in Section 3. Section 4 addresses key constraints to delivery of quality and relevant training at Qualifications Levels 1,2,3 and 4. Sections 5 to 7 set out how the WSDSP will be funded, implemented and monitored.



## SECTION 3

---

### Purpose and Objectives of the Workforce Skills Development Strategy and Plan



This Workforce Skills Development Strategy and Plan is a means of operationalising key elements of the National Oil and Gas Policy for Uganda (NOGP) which is explained in Section 1 of the WSDSP. NOGP, approved by Cabinet in 2008, sets out how Uganda aims to use the country's oil and gas resources to contribute to early achievement of poverty eradication and create lasting value to society. The most relevant Objective in the NOGP in relation to the WSDSP is Objective 8 which is:

- To support the development and maintenance of national skills and expertise.

**Within Objective 8, the WSDSP plays a key role in achieving point a.) which is to:**

- Identify the training skills required for the sector and plan for their development through both formal and industrial training.

In addition to the NOGP, successful implementation of the WSDSP will also contribute towards the achievement of Government of Uganda policies, strategies and plans including the National Content Policy for the Petroleum Sector and Skilling Uganda. Specifically the overarching purpose of the WSDSP is to:

**Maximise the quantity and quality of jobs available to Ugandans within Oil & Gas and related sectors in the period 2015 to 2025.**

This purpose will be achieved through a series of actions designed to bridge the quantitative and qualitative gap between skills demand and supply for Oil & Gas and related sectors in Uganda.

It is important to stress that regulations on labour mobility within the East African Community (particularly between Uganda, Kenya and Rwanda) means that citizens of these countries have the right to compete for employment with each other and live and work in each other's countries without discrimination. This free movement of labour provides a significant opportunity for Uganda. By implementing the WSDSP as planned then Uganda and Ugandans will be well placed to provide skilled labour across the East African Community. Conversely a failure to ensure rapid implementation of the WSDSP could mean that skilled Oil & Gas jobs in Uganda are taken by nationals of the wider East African Community due to a lack of relevant skills in the local labour market.

The Key Performance Indicators used to measure success against these 8 specific objectives are set out in the table below.

These actions are grouped under a series of eight specific objectives. Each objective contains a distinct set of activities along with relevant targets and key performance indicators. The 8 specific objectives are as follows:

9. Enhance coordination and joint working between Government, International Oil Companies, Training Providers and other stakeholders.
10. Ensure that all Oil & Gas related skills training within Uganda is accredited and meets a pre-agreed set of international quality standards.
11. Enhance communications and information sharing on Oil & Gas Skills requirements including the development of improved Labour Market Information relevant to the needs of the sector.
12. Ensure that all additional Level 1 jobs created in Oil and Gas and related sectors go to Ugandans between 2015 and 2025.
13. Ensure that 10,000 Ugandans secure an industry relevant and recognised Level 2 qualification by 2025.
14. Ensure that 2,000 Ugandans secure an industry relevant and recognised Level 3 qualification by 2025.
15. Ensure that 1,000 Ugandans secure an industry relevant and recognised Level 4 qualification by 2025.
16. Ensure that adequate funding and financing mechanisms are put in place to achieve objectives 1 to 7 of the WSDSP.





**Table 5 Key Performance Indicators for WSDSP Implementation**

Specific Objective	Related Key Performance Indicators (KPIs)
1. Enhance coordination and joint working between Government, International Oil Companies, Training Providers and other stakeholders.	<ul style="list-style-type: none"> <li>National Content Steering Committee established and operational, meeting at least six times per year between 2015 and 2025.</li> <li>At least 80% of consulted stakeholders believe that coordination and joint working is 'good' or 'very good' in annual survey.</li> <li>At least 90% of activities in the WSDSP are implemented as per work plan each year.</li> </ul>
2. Ensure that all Oil & Gas related skills training within Uganda is accredited and meets a pre-agreed set of international quality standards.	<ul style="list-style-type: none"> <li>Standards agreed and communicated for all 35 prioritised Occupational Areas/Qualifications Levels by the end of 2015.</li> <li>Standards reviewed and updated every two years through until 2025.</li> <li>At least 20 Ugandan registered training providers delivering qualifications which meet agreed Standards by 2025.</li> </ul>
3. Enhance communications and information sharing on Oil & Gas Skills requirements including the development of improved Labour Market Information relevant to the needs of the sector.	<ul style="list-style-type: none"> <li>Oil &amp; Gas Communications Strategy implemented with 40% of Ugandan citizens able to recognise the Oil &amp; Gas Skills Quality logo by 2017.</li> <li>Oil &amp; Gas Training Providers Forum is established and operational, meeting at least four times each year between 2016 and 2025.</li> <li>At least 10,000 Ugandans have their details registered with the National Talent Register and Enterprise Enhancement Centre by 2025.</li> </ul>
4. Ensure that all additional Level 1 jobs created in Oil and Gas and related sectors go to Ugandans between 2015 and 2025.	<ul style="list-style-type: none"> <li>7,000 Ugandans obtain relevant Health &amp; Safety certification by 2019.</li> <li>3,000 Ugandans go through rapid English language assessments by 2019.</li> <li>2,500 Ugandans obtain Traineeships qualifications by 2020.</li> </ul>
5. Ensure that 10,000 Ugandans secure an industry relevant and recognised Level 2 qualification by 2025.	<ul style="list-style-type: none"> <li>5,000 Ugandans obtain relevant Level 2 qualifications which meet international standards by 2025 through institutions which have participated in the Skills Standards Support Programme.</li> <li>Welding Centre of Excellence established and operational by 2017.</li> <li>4,000 Ugandans obtain relevant Level 2 qualifications which meet international standards by 2020 through the Labour Market Assessment &amp; Training Fund.</li> <li>1,000 Ugandans graduate from Level 2 Apprenticeships programmes delivered by training providers and Oil &amp; Gas employers by 2022.</li> <li>100 Ugandan trainers benefit from industry attachment and secondment programmes by 2021.</li> </ul>

6. Ensure that 2,000 Ugandans secure an industry relevant and recognised Level 3 qualification by 2025.	<ul style="list-style-type: none"> <li>• 1,050 Ugandans gain industry relevant and internationally recognised Level 3 qualifications from UPIK by 2025.</li> <li>• 250 Ugandans gain industry relevant and internationally recognised Level 3 qualifications from UTC Kichwamba by 2025.</li> <li>• 300 Ugandans gain industry relevant and internationally recognised Level 3 Logistics &amp; Supply Chain Management qualifications by 2021.</li> <li>• 400 Ugandans gain industry relevant and internationally recognised Level 3 qualifications through IOC overseas scholarships by 2025.</li> </ul>
7. Ensure that 1,000 Ugandans secure an industry relevant and recognised Level 4 qualification by 2025.	<ul style="list-style-type: none"> <li>• 900 Ugandans gain industry relevant and internationally recognised Level 4 qualifications by 2025 through universities supported by the Skills Standards Support Programme.</li> <li>• Petroleum Centre of Excellence established and operational by 2017.</li> <li>• University Chairs sponsored in at least two relevant universities and disciplines by 2018.</li> <li>• 100 Ugandans gain industry relevant and internationally recognised Level 4 qualifications through IOC overseas scholarships by 2025.</li> <li>• 20 Ugandan lecturers benefit from industry attachment and secondment programmes by 2020.</li> </ul>
8. Ensure that adequate funding and financing mechanisms are put in place to achieve objectives 1 to 7 of the WSDSP.	<ul style="list-style-type: none"> <li>• Petroleum Skills Development Fund established and operational by 2016.</li> <li>• IOC offset and cost recovery funding requirements for facilities and equipment agreed between Government of Uganda and employers by 2016.</li> <li>• Recurrent funding commitments secured from MoFPED on an annual basis from 2015 onwards.</li> <li>• Contractual requirements for skills development funding for international employers agreed and implemented from 2015 onwards.</li> </ul>

In order to make the WSDSP as clear and demand-driven as possible the Government has avoided setting specific participation targets by gender, age, poverty level or disability status. However, in implementing the detailed activities within the WSDSP, the Terms of Reference for funding allocations to training providers will make it clear that equity, gender and inclusion are all important considerations. In particular the WSDSP provides an opportunity to ensure that the poorest and most disadvantaged sections of Ugandan society are able to benefit from Oil & Gas training and employment. Training providers and employers will therefore be

encouraged to target unemployed young people, women and the rural poor across all employment levels but particularly for those Level 1 jobs which do not have the barrier of formal qualifications as an entry requirement. At qualifications Levels 2, 3 and 4 training providers and employers will be encouraged to provide opportunities for women to take up training and employment opportunities in sectors and occupational areas which

have been typically dominated by men. Providers and employers will also be encouraged to ensure that provision is as inclusive as possible so that people living with disabilities are able to participate in the opportunities created.

Environmental protection is also an important cross-cutting consideration. Whilst the number of individuals to be employed directly in Waste Management and Environmental roles is relatively small, it is important that training across a wide range of occupational areas and qualifications levels stresses the importance of environmental protection and responsibility within the workplace. The WSDSP will ensure that such training is incorporated as a key cross-cutting consideration.

Details of the specific activities to be implemented in order to achieve these KPIs are set out in **Sections 4 and 5** of the WSDSP while **Section 8** explains how the work plan will be monitored so that the Government of Uganda is able to measure progress in relation to these KPIs.

## SECTION 4

---

Activities to address cross-cutting constraints.

## 4.1 Institutional Architecture and Coordination Mechanisms

### 4.1.1 Coordination Issues

Taking action to enhance skills in Oil & Gas and related sectors in Uganda requires the coordination and active cooperation of a wide range of stakeholders. Establishing the means to enable this coordination and cooperation to take place is an urgent priority given the short time (2 to 3 years) until peak labour demand related to oil and gas in Uganda. If activities are not coordinated in time to take advantage of this peak then the chance will be lost for good- there will never be a better opportunity to maximise the quantity and quality of employment opportunities for Ugandans within oil and gas and related sectors.

The first step in improving coordination and communication of key stakeholders is the production of this WSDSP which provides clarity as to the roles and responsibilities of stakeholders, providing a framework for coordinated and coherent action.

But producing the WSDSP is not, in itself, enough. Concerted efforts need to be made to ensure that the WSDSP is effectively 'owned' and implemented. In particular there needs to be a mechanism for inculcating an effective partnership approach between the various stakeholders and for ensuring strategic oversight and a relentless focus on implementation.

Government and International Oil Companies (IOCs) each bring their own distinctive strengths and areas of expertise, as do training providers and other employers active in Oil & Gas and related sectors. These strengths need to be aligned in order to provide effective strategic oversight and direction. In addition, the Government is composed of a number of Ministries and Departments, some of which may have priorities and plans which are not always aligned. Issues between Ministries can sometimes drag on for months and even years acting as a brake on implementation and creating blockages to successful delivery. If a particular policy area is of considerable strategic national importance, such as Oil & Gas skills development, then there is a need for a coordination and decision-making mechanism which can rapidly escalate and resolve issues which may arise at Ministerial or Departmental level.

### 4.1.2 Coordination and Oversight Mechanism - The National Content Steering Committee

The relevant objective of the WSDSP is **Objective 1** which is to:

- Enhance coordination and joint working between Government, International Oil Companies, Training Providers and other stakeholders.

The draft National Content Policy for the Petroleum Sector in Uganda provides the policy framework to increase national participation in the petroleum value chain for the benefit of the petroleum sector itself, the economy and society at large. The National Content Policy also sets out a proposed institutional framework for coordinating the development and monitoring of national content.

Under this framework the Ministry of Energy and Mineral Development (MEMD) is the line ministry responsible for coordinating the development and monitoring of national content in the petroleum sector. This function is currently being undertaken by a unit in the Directorate of Petroleum (DoP). The Petroleum Acts of 2013 place the role of ensuring licensees comply with the provisions of the PSAs and the laws with a Petroleum Authority to whom the petroleum sector firms shall report on national content. It is recommended that the function of 30 coordinating national content with other Government agencies remains as a separate unit under the Ministry.

The DoP National Content unit will be supervised by the Permanent Secretary of the MEMD (or his/her appointed delegate) as chairman of a National Content Steering Committee. The steering committee will be comprised of the Permanent Secretary of the Ministry of Education, Science, Technology & Sports (MoESTS), Ministry of Trade, Industry and Cooperatives (MTIC), Ministry of Finance, Planning and Economic Development (MoFPED) and the heads of the Uganda Bureau of Statistics (UBOS), Uganda National Bureau of Standards (UNBS) and the Private Sector Foundation Uganda (PSFU). A taskforce coordinated by the National Content unit and comprised of desk officers from the respective aforementioned steering committee institutions, shall be responsible for data gathering and following up of agreed National Content development initiatives.

**The National Content Steering Committee will be the coordination mechanism responsible for overseeing effective implementation of the WSDSP.**

There is a growing body of international evidence regarding the application of best practice principles in the establishment of government implementation and coordination mechanisms to drive effective delivery of plans and policies. This evidence is summarised by the World Bank under the title 'the science and politics of delivery'. These principles have helped to deliver impressive results by governments in contexts as diverse as the UK, Malaysia and Tanzania.

These principles are set out below:

- Coordination structures should ensure representation of all key stakeholders required to deliver results including those beyond government. The absence of key stakeholders will hinder effective implementation.
- The secretariat function of coordination structures should be operated by a small number of high quality full-time staff under the leadership of a widely respected Chair who has a direct line of communication to senior leadership. Staff should focus on problem solving and analysis in addition to standard Secretariat functions.
- Coordination structures should oversee a regular performance monitoring regime focused on gathering and using data on progress against a limited number of key priorities.

- Structures should ensure adequate senior representation from financing institutions (both within government e.g. Ministry of Finance and beyond government) so that a strong link is maintained between priorities and resource allocation.
- Coordination structures should oversee a communications strategy and ensure that they send a clear message throughout the delivery system that senior staff are being held accountable for performance against key priorities.

The National Content Steering Committee will follow all of these best practice principles in discharging its oversight duty of the WSDSP. Table 6 below shows how it will adhere to each principle in turn.

See for example the use of Public Service Agreement (PSA) Delivery Boards in the UK, the establishment of the Performance Management and Delivery Unit (PEMANDU) in Malaysia and the recent successes achieved by the President's Delivery Bureau (PDB) and Big Results Now! in Tanzania.

**Table 6. Application of best practice performance oversight principles by National Content Steering Committee**

Best Practice Principle	Example of application by National Content Steering Committee
Ensure representation of all key stakeholders required to deliver results.	The National Content Steering Committee has a diverse membership including: Government Ministries and Agencies (MEMD, MTIC, MoESTS, MoGLRD, MoFPED, UNBS, NCHE, NPA, UBOS and URA); International Oil Companies (IOCs) and International Service Providers; representatives of training providers (including UGAPRIV) and financiers of activities within the WSDSP.
Structures should be operated by a small number of high quality full-time staff under the leadership of a widely respected Chair who has a direct line of communication to senior leadership.	A dedicated full-time Unit within DoP's National Content Team is responsible for overseeing delivery of the WSDSP and monitoring and reporting on progress. In order to increase the human resource capacity and expertise available to DoP they will contract manage a Technical Assistance and Fund Management Agency to support on delivery of specific aspects of the WSDSP. The National Content Steering Committee is chaired by the PS of MEMD who has a direct line of reporting to the Minister of Energy who in turn chairs the Cabinet Committee on Oil & Gas. This presents a regular and effective dispute resolution mechanism with a clear chain of escalation through to the Office of the Prime Minister (OPM) if required.
Structures should oversee a regular performance monitoring regime focused on gathering and using data on progress against a limited number of key priorities.	The WSDSP has a monitoring framework with clear KPIs for each of its 8 objectives. All relevant training providers, employers and stakeholders will be required to report on progress on a monthly basis to the WSDSP Oversight Unit. The Unit will then present concise progress reports to the National Content Steering Committee using a 'traffic light' rating system.
Ensure adequate senior representation from financing institutions so that a strong link is maintained between priorities and resource allocation.	The Ministry of Finance is represented on the Steering Committee as will all other agencies contributing funding towards WSDSP implementation including IOCs and relevant development partners. The Ministry of Finance is also represented on the Cabinet Committee on Oil & Gas if there is a requirement for financial issues to be escalated to Ministerial level.
Send a clear message throughout the delivery system that senior staff are being held accountable for performance against key priorities.	All relevant training providers, employers and stakeholders will be required to report on progress on a monthly basis to the WSDSP Oversight Unit. Any providers, employers or stakeholders whose performance is a significant cause for concern will be called before the National Content Steering Committee to present their plans to get back on track.



The National Content Steering Committee will meet on a monthly basis during the initial six months of WSDSP implementation. Thereafter it will meet bi-monthly. DoP's WSDSP Oversight Unit within the National Content Team will prepare a progress report to be circulated prior to each meeting containing actions requiring resolution and a performance update against each KPI.

The National Content Steering Committee will be dealing with a much wider set of National Content issues than those related to Skills Development. It is therefore important to ensure that monitoring and overseeing the WSDSP does not become 'lost' within a wider set of priorities and issues. To counteract this risk it will be a stipulation that WSDSP implementation progress is a standing agenda item at all National Content Steering Committee meetings.

The National Content Steering Committee also has a large and comprehensive membership, including representation from across a significant number of Government ministries. This has the advantage of enhancing the chances of widespread stakeholder engagement and coordination in delivering the WSDSP. However, the drawback of this comprehensive approach is that it may be difficult to get all members of the Committee to attend meetings regularly. There is a danger with wide membership and frequent meetings that some stakeholders will delegate attendance to more junior representatives, meaning that the Committee lacks the ability to make binding and authoritative decisions.

One possible way forward to ensure effective WSDSP implementation is to form a smaller 'core group' or 'sub-committee' of Steering Committee members consisting of the MEMD, MoESTS, MoFPED and representatives of the IOCs operating in Uganda at the time. This core group will be responsible for meeting regularly and driving forward implementation of the WSDSP and then reporting on progress to the wider National Content Steering Committee.

The Government of Uganda should also consider appointing a respected, high profile figure from the Ugandan private sector to take on the role of Skills Ambassador. This Skills Ambassador would act as the public face of the WSDSP, emphasising to the public that skills development involves collaboration between industry and government in order to succeed. The Skills Ambassador would be responsible for communicating progress in implementing the WSDSP to concerned stakeholders and the general public as well as being vocal in articulating any blockages to progress so that these can be resolved. The Skills Ambassador would be a member of the 'core group' of Steering Committee members.

The Steering Committee will be linked to wider government coordination and dispute resolution mechanisms. Specifically the Steering Committee will report through the PS of MEMD to the Minister of Energy and Mineral Development on a monthly basis. This report will cover any issues which cannot be resolved at Steering Committee level and which need escalation. The Minister will then raise any issues as a priority through the Cabinet Committee on Oil & Gas which is chaired by the Minister of Energy and which reports to the Office of the Prime Minister. If a solution still cannot be achieved through the Cabinet Committee then the issue will be escalated to the Office of the Prime Minister for discussion, arbitration and resolution.

The principle tasks of the National Content Steering Committee and dedicated WSDSP oversight Unit will be to:

- Oversee implementation of the WSDSP including performance monitoring, data collection and analysis
- Lead efforts to solve problems and unblock delivery obstacles hindering effective implementation of the WSDSP.
- Lead and coordinate communications on Oil & Gas skills issues so that Ugandans are well informed as to the job opportunities available within the sector, the most appropriate entry routes to these jobs and the actions which Government is taking to facilitate access.
- Document progress against the WSDSP implementation plan and publish annual reports setting out achievements and issues.
- Coordinate information gathering, research and knowledge sharing regarding activities set out in the WSDSP.
- Oversee contract and performance management of any Technical Assistance and Fund Management Agencies hired to deliver activities within the WSDSP.

In order to strengthen its staff capacity the dedicated WSDSP oversight Unit within DoP should consider taking on one or two secondees from the Oil & Gas industry. These individuals, who should have good knowledge of the skills required by employers, would work for a fixed term (either one or two years) to strengthen the capacity and industry understanding within the oversight Unit.

The activities in the WSDSP make provision for a number of funds which can be accessed by training providers and institutions on a competitive basis in order to train more Ugandans. These funds include:

- Skills Standards Support Programme (explained in Section 4.2.2.3)
- Health & Safety Certification Programme (explained in Section 5.1.2.3)
- Traineeship Training & English Language Assessment Programme (explained in Section 5.1.2.5)
- Labour Market Assessment and Training Fund (explained in Section 5.2.2.3)

In order to manage these funds and support programmes as effectively and efficiently as possible it is recommended that the National Steering Committee contracts a Technical Assistance and Fund Management Agency to oversee implementation and operation of these activities. This Agency will be contract managed by DoP's WSDSP Oversight Unit.

The National Content Steering Committee will initiate a dialogue with the Skilling Uganda Reform Taskforce in order to establish linkages and learning between the WSDSP and wider Ugandan skills reform efforts.

#### 4.1.3 Roles and Responsibilities of Key Stakeholders in WSDSP oversight, implementation and monitoring.

There are a significant number of stakeholders in Uganda, both within and outside Government, who have an interest in workforce skills development in the Oil & Gas sector. The National Content Steering Committee will play an important role in ensuring that all stakeholders are kept up to date with the WSDSP implementation progress and are able to play an active role in resolving delivery issues. Openness, transparency and prompt communications are the key to making this stakeholder collaboration a success.

In addition to setting out membership of the National Content Steering Committee it is also important to be absolutely clear as to the anticipated roles of each stakeholder in the oversight,

implementing and monitoring of the WSDSP. Table 6 sets out the anticipated roles and means of engagement for key stakeholders in WSDSP implementation. Clarity over the role and means of engagement is important as, without it, coordination may be undermined through multiple communications channels and duplicated actions. The WSDSP recognises that multiple partners are required for successful implementation but it is important that information sharing and coordination is front and centre in order to take advantage of potential synergies between the various actors.

**Table 7 Roles and Means of Engagement for Key Stakeholders in WSDSP**

Stakeholder	Role in WSDSP oversight, implementation and monitoring	Means of engagement in WSDSP delivery
<b>Government Ministries</b>		
Ministry of Energy & Minerals Development/ Directorate of Petroleum (MEMD/DoP)	Overall responsibility for Uganda's National Oil & Gas Policy and National Content Policy to ensure that the country's oil and gas resources contribute to early achievement of poverty eradication and create lasting value to society. The WSDSP contributes towards this overarching aim.	Chair of National Content Steering Committee, overall responsibility for WSDSP implementation.
Ministry of Education, Science, Technology & Sports (MoESTS)	Responsible for development of the policy framework required to respond to the educational requirements of the petroleum sector at vocational, tertiary and high education level. MOESTS affiliated agencies are responsible for implementation of policy and will consult with the petroleum sector in the process of curriculum development and quantification of the needs of the industry.	Membership of National Content Steering Committee
Ministry of Gender, Labour and Rural Development (MoGLRD)	Responsible for overseeing implementation of national employment policy to which the WSDSP contributes. Also responsible for oversight and management of the National Talent Register for Oil & Gas Skills.	Membership of National Content Steering Committee
Ministry of Finance, Planning & Economic Development (MoFPED)	Responsible for providing the budget required for administering the coordination of national content development and monitoring. The MoFPED will also advise on other aspects of funding for example, should it be deemed necessary to establish a separate national content development fund and in the operations and management of the proposed Petroleum Skills Development Fund and levy arrangements.	Membership of National Content Steering Committee
Ministry of Trade, Industry & Cooperatives (MTIC)	Responsible for ensuring that the overall policy framework and investment environment is conducive for the successful delivery of the WSDSP.	Membership of National Content Steering Committee

Government Agencies		
National Council for Higher Education (NCHE)	Responsible for overseeing quality of university delivery and monitoring partnerships between selected institutions and international universities to ensure that they are adhering to the agreed Training Standards.	Through MoESTS
Directorate of Industrial Training (DIT)	Responsible for assessing qualifications delivered through Ugandan training institutions to ensure it meets the required standards. Will benefit from collaboration and capacity building support from international providers to strengthen assessment capacity and capabilities.	Through MoESTS
National Curriculum Development Council (NCDC)	Responsible for ensuring that the Ugandan curricula are fit for purpose and meet the needs of industry and employers by providing an adequate foundational base in analytical and soft skills required for employability.	Through MoES
Uganda Bureau of Statistics (UBOS)	Responsible for the computation and release of national content statistics annually.	Membership of National Content Steering Committee
Uganda Investment Authority (UIA)	Responsible for licensing local and foreign investors interested in supplying goods and services to the petroleum sector.	Membership of National Content Steering Committee
Uganda National Bureau of Standards (UNBS)	Responsible for approving certification of local suppliers and/or accrediting private sector certification agencies engaged to undertake certification of companies, based on their fulfilment of certification criteria.	Membership of National Content Steering Committee
National Planning Authority (NPA)	Responsible for overseeing implementation of Uganda's second National Development Plan (NDP2) and reporting to the Prime Minister on aspects of the WSDSP which directly relate to deliver of NDP2 objectives.	Membership of National Content Steering Committee
Uganda Business and Technical Examinations Board (UBTEB)	Responsible for assessing and certifying learners against Ugandan curricula which meet the needs of industry and employers by providing an adequate foundational base in analytical and soft skills required for employability.	Through MoESTS
Uganda National Examinations Board (UNEB)	Responsible for assessing and certifying learners against Ugandan curricula which meet the needs of industry and employers by providing an adequate foundational base in analytical and soft skills required for employability.	Through MoESTS
Skilling Uganda Reform Task Force (subsequently Skills Development Authority, SDA, from 2016 onwards)	Responsible for ensuring that activities implemented under the WSDSP are consistent and coherent with the Government of Uganda's Skilling Uganda (BTVET) Strategic Plan for 2011-2020. This Plan sets out the aim of bringing about a paradigm shift in BTVET so that it develops into a comprehensive system of skills development for employment, enhanced productivity and growth.	Membership of National Content Steering Committee

<b>Employers and Employer Representative Bodies</b>		
IOCs	Responsible for working jointly with Government to deliver aspects of the WSDSP which require IOC advice, input and investment. Also responsible for working with Government to suggest amendments to WSDSP in the course of implementation to ensure that it remains effective and relevant and for openly and honestly communicating their workforce skills requirements.	Membership of National Content Steering Committee
EPC Contractors	Responsible for working jointly with Government, IOCs and training providers to deliver aspects of the WSDSP which require their cooperation, action and investment.	Through IOCs and Oil & Gas Training Providers Forum
Sub-Contractors	Responsible for working jointly with Government, IOCs, EPC Contractors and training providers to deliver aspects of the WSDSP which require their cooperation, action and investment.	Through IOCs, EPC Contractors and Oil & Gas Training Providers Forum
Association of Oil & Gas Service Providers	Responsible for articulating the views of member employers and collaborating with Government and training providers to successfully implement the WSDSP.	Membership of National Content Steering Committee
Employers' Associations and Trade Bodies	Responsible for articulating the views of member employers and collaborating with Government and training providers to successfully implement the WSDSP.	Through Oil & Gas Training Providers Forum and other mechanisms as and when relevant
Private Sector Foundation Uganda	Responsible for advocating for changes in policies and laws for and on behalf of the different private sector member associations. Member associations will not have a direct role in coordinating and developing national content, but will be key reference points for monitoring the effectiveness of this policy.	Membership of National Content Steering Committee.
Uganda National Association of Building and Civil Engineering Contractors (UNABCEC)	Responsible for articulating the views of member employers and collaborating with Government and training providers to successfully implement the WSDSP.	Through IOCs, EPC Contractors and Oil & Gas Training Providers Forum.
Uganda Chamber of Mines and Petroleum.	Responsible for articulating the views of member employers and collaborating with Government and training providers to successfully implement the WSDSP.	Membership of National Content Steering Committee.
<b>Training Providers</b>		
Universities	Responsible for working in partnership with international universities to meet designated standards and deliver sufficient number of qualified graduates for prioritised Level 4 occupational areas (as well as other Levels where appropriate).	National Content Steering Committee (selected institutions) and Oil & Gas Training Providers Forum
Vocational Training Institutes (VTIs)	Responsible for working with partners to meet designated standards and deliver sufficient number of qualified learners for prioritised Level 2 occupational areas.	National Content Steering Committee (selected institutions) and Oil & Gas Training Providers Forum

Uganda Technical Colleges (UTCs)	Responsible for working with partners to meet designated standards and deliver sufficient number of qualified learners for prioritised Level 2 and 3 occupational areas.	National Content Steering Committee (selected institutions) and Oil & Gas Training Providers Forum
UPIK	Responsible for working with international partners to meet designated standards and deliver sufficient number of qualified learners for prioritised Level 3 occupational areas.	National Content Steering Committee and Oil & Gas Training Providers Forum
UGAPRIVI	Responsible for articulating the views of member training providers and collaborating with Government and employers to successfully implement the WSDSP, particularly across qualifications Levels 1, 2 and 3.	National Content Steering Committee
<b>Development Partners</b>		
World Bank	Responsible for providing support, technical advice and financial assistance where appropriate for designated activity areas within the WSDSP.	National Content Steering Committee (if directly financing elements of WSDSP)
Norwegian Government	Responsible for providing support, technical advice and financial assistance where appropriate for designated activity areas within the WSDSP.	National Content Steering Committee (if directly financing elements of WSDSP)
DFID/GiZ	Responsible for providing support, technical advice and financial assistance where appropriate for designated activity areas within the WSDSP.	National Content Steering Committee (if directly financing elements of WSDSP).
BTC	Responsible for providing support, technical advice and financial assistance where appropriate for designated activity areas within the WSDSP.	National Content Steering Committee (if directly financing elements of WSDSP)
<b>Other Agencies and Organisations</b>		
Living Earth	Responsible for articulating the needs and issues of communities and individuals in the Bunyoro area to ensure that they are benefitting from the activities outlined in the WSDSP.	Membership of National Content Steering By invitation at National Content Steering Committee and Oil & Gas Training Providers Forum. Committee
Civil Society Coalition on Oil and Gas	Responsible for articulating the needs and issues of Ugandan civil society to ensure that target groups are benefitting from the activities outlined in the WSDSP.	By invitation at National Content Steering Committee and Oil & Gas Training Providers Forum.

#### 4.1.4 Implementation Timetable for Institutional Architecture and Coordination Mechanisms.

The implementation timetable for the Institutional Architecture and Coordination Mechanisms Activity Strand of the WSDSP is as follows:

**Table 8: Implementation Timetable for Institutional Architecture and Coordination Mechanisms**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Constitute National Content Steering Committee and finalise Terms of Reference	MEMD/DoP	May 2015
Finalise staffing requirements for dedicated WSDSP Implementation Unit within DoP's National Content Team and appoint Skills Ambassador.	MEMD/DoP	May 2015
Complete recruitment for dedicated WSDSP Implementation Unit.	MEMD/DoP	July 2015
Develop Terms of Reference, tender for and contract a Technical Assistance and Fund Management Agency	National Content Steering Committee, MEMD/DoP	Advertise tender June 2015 Sign contract September 2015
<b>Medium-Term (3-5 years)</b>		
Review performance of Technical Assistance and Fund Management Agency and determine appropriate implementation support arrangements from 2019 onwards	National Content Steering Committee, MEMD/DoP	November 2018



## 4.2 Accreditation and Standards

### 4.2.1 Accreditation and Standards Issues

The petroleum and natural gas industries use a variety of standards including:

- Standards developed through national and regional standardisation bodies,
- Standards developed by individual companies in the industries
- Standards developed by international standards and awarding bodies.

The use of these standards enhances technical integrity, improves safety, reduces environmental damage, and promotes business efficiencies that result in reduced costs.

<http://www.ogp.org.uk/pubs/381.pdf>

Qualifications are a form of standard setting out the technical skills and competencies of the qualification holder which can then be matched with the work requirements of certain positions in the industry. An agreement on which standards to adopt is vital in order to ensure consistency and quality within the industry- so that employers have the confidence that qualification holders have the skills and competencies required to work safely and effectively in the Oil & Gas industry in Uganda.

The international oil and gas industry is highly regulated and sets stringent standards regarding health and safety and quality control. To ensure that these standards are maintained IOCs and their sub-contractors are not going to allow people to work in the industry unless they have complete confidence that they will adhere fully to the required standards. This requires all employees to hold the relevant qualifications, certification and have the proven competencies required by the industry. This certification is not optional or discretionary. Employers' insurers will simply not allow uncertified and inadequately qualified personnel to be employed in the industry due to the significant risk that this poses from a health and safety perspective.

The Government of Uganda wants the country to be a regional leader in Oil & Gas with a cadre of Ugandan oil and gas workers that are qualified to international standards. The country's vision is that, in time, Ugandan Oil & Gas professionals will be sought after internationally and will hold senior, middle management and technician- level positions world-wide. In order to achieve this vision it is imperative that Ugandans are trained to internationally-recognised qualifications and standards. This will provide the Oil & Gas industry with confidence that Ugandans hold qualifications which ensure they have the technical skills and competencies required by the industry.

In addition to the core Oil & Gas related disciplines and occupational areas, international qualifications and standards are also required for sectors that support the oil and gas industry such as construction and related trades.

The quality of, for example, welding, pipe fitting and scaffolding is critically important to ensuring the safety and integrity of construction work.

An agreement on the qualification standards that Uganda will adopt for Oil & Gas and related disciplines is both urgent and important, as it underpins other decisions relating to developing the skills of workers in the industry.

### 4.2.2. Accreditation and Standards Activities

The relevant objective of the WSDSP is Objective 2 which is to:

- Ensure that all Oil & Gas related skills training within Uganda is accredited and meets a pre-agreed set of international quality standards.

Currently there are three international oil companies operating in Uganda and more exploration licenses are scheduled to be granted in 2015. These IOCs each have standards which they have been using on similar projects around the world.

The Government of Uganda, working in collaboration with IOCs, needs to take the lead in deciding which standards to use for each qualification level and occupational area. These standards need to be rigorous so that IOCs have confidence that Ugandan workers receiving accreditation to these standards have the necessary skills and competencies to work effectively in their assigned roles. The Government and IOCs also need to have confidence that qualifications are only awarded to candidates that meet the standards and that there are no adverse incentives to certify students who have underperformed.

Once training providers know which training and assessment standards have been agreed by the Government and IOCs then they can put plans in place to meet these standards and deliver industry relevant qualifications. This will make it straightforward for institutions to know exactly what competencies workers are expected to have so that they can then develop and deliver appropriate courses which meet the agreed standards.

Training providers wishing to deliver qualifications which meet the agreed standards will need to be assessed to ensure that they reach the standards required by the industry. If training providers do not reach the expected standards, they will have to put in place plans to improve aspects of provision so that they meet the standards. They may well need to upgrade their infrastructure and equipment, provide training to trainers, reform their existing courses and develop a number of new courses. This will take time and, depending on the changes to be made, may require considerable financial investment. It is also important to stress that governance, leadership and management arrangements and capacity will be assessed as part of the accreditation process.

Ugandan institutions must be prepared to take actions to improve governance, leadership and management if these areas fall short of what is required by the standard setting bodies.

The specific activities in the WSDSP to address Accreditation and Standards issues are set out below:

#### 4.2.2.1 Agree which International Standards should be used in Uganda

The decision on which International Training Standards are to be recognised by the Oil & Gas industry in Uganda will be made by a dedicated Training Standards Sub-Committee constituted by and reporting to the National Content Steering Committee.

This Standards Sub-Committee will be jointly chaired by MEMD/DoP and MoESTS with representation from the three IOCs currently operating in Uganda and the Uganda National Bureau of Standards (UNBS).

The Sub-Committee will identify appropriate International Training Standards for the following Occupational Areas and Qualifications Levels:

**Table 9: List of prioritised Occupational Areas by Qualifications Level**

Level 4	Level 3	Level 2	Level 1
Chemical & Process Engineering	Chemical & Process Technician	Civil/Structural Trades	Health & Safety Certification
Civil/Structural Engineering	Instrumentation Technician	Carpentry	English Language proficiency
Instrumentation Engineering	Control Centre Operations	Painting	
Control Centre Operations	Electrical Technician	Plumbing	
Electrical Engineering	Production Technician	Scaffolding	
Mechanical Engineering	Maintenance Technician	Construction Plant Operations	
Geological Engineering	Mechanical Technician	Tanker & HGV Driving	
Health, Safety & Environment	Drilling Technician	Welding	
Maintenance Engineering	Petroleum Technician	Electrician	
Petroleum Engineering	Logistics & Supply Chain Management	Pipe Fitting	
Drilling Engineering		Vehicle Mechanics	
Well Engineering			

Occupational Areas anticipated to generate more than 300 additional jobs are in bold. These Occupational Areas should be prioritised when identifying and agreeing on Training Standards.

The criteria used to decide which International Training Standards to endorse for each Qualification Level & Occupational Area are as follows:

- Standards should be recognised and accepted by the international oil industry, including by all 3 IOCs currently operating in Uganda.
- Standards should be consistent and coherent in relation to each other. Sets of Standards which incorporate multiple occupational areas will be prioritised due to the reduced transaction costs involved in their adoption.
- Standards should be relevant and appropriate to Uganda (i.e. language of instruction) with a realistic chance that Ugandan training institutions will be able to deliver them with investment and support.

It is the intention of the Government of Uganda to create a vibrant training market for the delivery of high quality internationally recognised Oil & Gas qualifications. The Sub-Committee will therefore retain the right to approve more than one International Training Standard for each Occupational Area and Qualifications Level so long as the Standards meet the criteria set out above.

The Government of Uganda and IOCs agreed an initial set of Training Standards for Levels 1 to 3 during consultative meetings in April and May 2015. These meetings involved the MoESTS, MEMD/DoP, DIT, Training Providers, IOCs and members of the Reform Task Force (RTF) with responsibility for establishing the Oil & Gas Sector Skills Council (SSC).

This list is set out in Table 10 below. In addition agreement was reached that an open competition would be the best way to encourage international universities to partner with Ugandan universities to deliver Level 4 qualifications on the priority list. To ensure that selected international universities have the relevant levels of credibility with the international oil and gas industry, the IOCs operating in Uganda will provide official advice to NCHE stating whether they recognise and approve those international universities which have applied to partner with Ugandan institutions. If the IOCs state that they do not recognise or approve these universities then NCHE will be strongly advised to decline their application to operate in Uganda.

**Table 10: List of Approved Training Standards**

Level 3 Occupational Areas	Agreed Standards	Level 2 Occupational Areas	Agreed Standards	Level 1 Occupational Areas	Agreed Standards
Chemical & Process Technician	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Civil/Structural Trades	City & Guilds Trades SQA Construction Operations & Civil Engineering Services	Health & Safety Certification	OPITO (MIST) OSHA NEBOSH Health & Safety Executive (HSE)
Instrumentation Technician	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Carpentry	City & Guilds Trades SQA Wood Occupations (Construction) Carpentry & Joinery	English Language Proficiency	IELTS City & Guilds IEQs
Control Centre Operations	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Painting	City & Guilds Level 2 Diploma in Painting & Decorating SQA Decorative Finishing Occupations (Construction) SSPC		
Electrical Technician	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Plumbing	City & Guilds SQA (Construction Crafts: Plumbing)		
Production Technician	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Scaffolding	City & Guilds OPITO SQA Accessing Operations and Rigging (Construction) (Extractives)		

Maintenance Technician	OPITO Global Occupational & Training Standards	Construction Plant Operations	City & Guilds SQA Plant Operations
Mechanical Technician	OPITO Global Occupational & Training Standards CNOOC Vocational Qualification	Tanker & HGV Driving	SQA Driving Goods Vehicles Uganda Driving Standards Agency
Drilling Technician	IADC RigPass IWCF	Welding	TWI/AWS API STD 1104 ISO 13847 ASME IX2007 CSWIP 3.1 City & Guilds
Petroleum Technician	OPITO Global Occupational & Training Standards	Electrician	City & Guilds OPITO SQA Electrical Installation
Logistics & Supply Chain Management	Chartered Institute of Procurement and Supply (CIPS)- Diploma in Procurement and Supply & Advanced Diploma in Procurement & Supply	Pipe Fitting	City & Guilds SQA Installing Plant & Systems (Pipe Fitting) API 510 API 570
		Vehicle Mechanics	City & Guilds SQA Heavy Vehicle Maintenance & Repair Principles

#### Level 4 Standards

At Level 4 there is a general lack of overarching international technical standards developed, owned or licensed by an industry body. Instead there are many universities worldwide which have partnered with the international oil and gas industry to create high quality and relevant Bachelor's and Master's Degree level programmes. The three IOCs currently operating in Uganda maintain a list of approved and recommended universities and degree awarding bodies whose provision they trust to be high quality and relevant. Universities on this IOC approved list should be incentivised to partner with Ugandan universities

This partnership arrangement would mean that Ugandan institutions will be able to offer joint awards across a range of Level 4 qualifications which meet the needs of the international Oil & Gas industry. The key issue with university provision is that employers have the confidence that individuals graduating from courses have the relevant skills and competencies needed for the work which they will carry out in the industry. International partnerships with trusted institutions will give the IOCs confidence that provision meets their needs, building the foundations for Ugandan institutions to deliver high quality and relevant Oil & Gas related training for years to come.

#### Level 3 Standards

At Level 3 the OPITO Global Technical Standards provide a credible, industry-recognised suite of newly updated Level 3 training standards with which IOCs are already very familiar. OPITO, the skills organisation for oil and gas, is an international group with offices in Aberdeen, Kuala Lumpur, Dubai and Houston. OPITO works with Governments, national oil companies, multi-nationals and contractors to help them meet their skills needs through the provision of independent, non-commercially driven advice and guidance on effective management of workforce skills development, emergency response and occupational standards and qualifications and quality assurance of training delivery.

OPITO standards are developed by oil and gas workgroups, made up of industry representatives, training providers and trade associations. These workgroups drive the content of a standard, the purpose, aims and objectives, assessment criteria, training programme and instructor requirements. OPITO's approval process ensures that training is delivered to the standard set and each individual is trained to the same level globally.

OPITO's Global Technical standards support their Technical Qualifications framework. The disciplines catered for are processing operations hydrocarbons and three maintenance disciplines: electrical, mechanical and instrument and control. OPITO offer a range of qualifications that can be delivered in the training centre via Global Training Standards and workplace environments via Global Occupational Standards.

OPITO Global Training Standards therefore cover all of the required Level 3 Occupational Areas for Uganda with the exception of Logistics & Supply Chain Management.

The Chartered Institute for Procurement & Supply (CIPS) is a globally recognised body which develops high standards of professional skill, ability and integrity among all those engaged in purchasing and supply chain management. CIPS already has a presence in Uganda, with CIPS approved and certified courses being offered by the Uganda Management Institute and Multitech Business School. It therefore makes sense to adopt CIPS as the International Technical Standard for qualifications relating to Logistics & Supply Chain Management.

### Level 2 Standards

At Level 2 (Crafts and Trades) there are a number of International Training Standards recognised as relevant by Oil & Gas employers which can be used in Uganda. Many standard setting and accreditation bodies offer a range of qualifications which cut across a number of the priority occupational areas identified in the Demand Assessment.

City & Guilds offers internationally delivered and accredited Level 2 NVQ Certificate and Diploma qualifications in Construction, Carpentry & Joinery, Electrical Installation, Plumbing, Electrical and Electronic Engineering and Welding Skills. Q-Sourcing, a private training provider, is already providing assessment, training and certification in Uganda against City & Guilds NVQ Level 2 in Welding Skills. In addition City & Guilds also provides Construction Plant Operations and Painting NVQ Level 2 qualifications but these are not currently available outside of the UK.

For welding training standards it is important to consider that welding in a hydrocarbon environment involves a particular range of skills and issues which may not be covered in general welding courses. The American Petroleum Institute (API)'s STD 1104 'Welding of Pipelines and Related Facilities' is the most widely recognised international welding standard related to the Oil & Gas industry. The API run individual certification programmes which provide employers with an independent and unbiased way to evaluate the knowledge and experience of technical and inspection personnel. The International Organization for Standardization's ISO 13847 Petroleum and natural gas industries- Pipeline transportation systems- Welding of pipelines is also a widely recognised industry specific welding standard which can be adopted by Uganda.

It is important that the welding training delivered for the Oil & Gas industry in Uganda meets these specific international standards. There are numerous international training providers with experience of delivering qualifications which provide certification against these standards. The WSDSP sets out how such providers will be encouraged to partner with Ugandan training institutions so that a sufficient number of training places can be created to meet the demands of the industry.

A further significant occupational area identified in the Demand Assessment was Driving- specifically heavy goods vehicle driving and the transportation of hazardous materials. There are a number of international standards relating to the qualifications and training required to transport such materials. The European Agreement concerning the International Carriage of Dangerous Goods by Road for example states that all vehicles containing such materials must be driven by an ADR training certificate holder. IOCs also have their own global standards for transportation of hazardous materials by road and it would make sense for Uganda to adopt the training packages and standards developed by, for example, Total as the standard required to work in the Oil & Gas industry. The Uganda Driving Standards Agency is well placed to roll out delivery of these standards as they already deliver Oil and Gas Approved International Training and have clients including CNOOC, OGAS and Quest Energy.

### Level 1 Standards

All employees working in the Oil & Gas industry are required to hold relevant Health & Safety certification no matter the specific technical requirements of their job role. There are a large number of Health & Safety standards and qualifications recognised by the international Oil & Gas industry including those developed by industry bodies (such as OPITO and API), national governments (such as the UK's Health and Safety Executive and the US's Occupational Safety and Health Administration), training providers such as the British Safety Council and various IOCs. A list of the various Health & Safety standards acceptable to the Oil & Gas industry in Uganda should be agreed by the Training Standards Sub-Committee.

It is important to recognise that Health & Safety is a requirement for all occupational areas regardless of qualification level. However it is our expectation that Health & Safety modules and units will be built into the curricula of the Level 2, 3 and 4 qualifications delivered within the WSDSP. This means that the only area of the WSDSP where Health & Safety needs to be explicitly addressed is at Level 1 where job holders will not, in the main, require any formal qualifications or training other than the mandatory Health & Safety certification.

All workers, regardless of role, will also be required to have a basic command of written and spoken English as this is the official language used for Health & Safety purposes by the Oil & Gas industry in Uganda. The Standards Sub-Committee should specify the minimum acceptable level of English language competence using an internationally recognised standard scale such as IELTS (General Training Version). Workers can then be tested to ensure that they are able to meet this minimum requirement before commencing employment. It should be stressed that if Oil & Gas employers wish to employ Ugandans without holding an IELTS certificate then it is their prerogative to do so.



#### **4.2.2.2 Publicise these agreed Standards and communicate them to training institutions and members of the public**

Now that the initial list of Standards for each of the Occupational Areas and Qualifications Levels has been agreed this information must be officially communicated.

An official circular will be sent to all training providers containing the list of approved technical standards for Oil & Gas in Uganda while UGAPRIVI will communicate this information to private training providers. Training providers must deliver qualifications which meet these standards in order to meet the requirements of the Oil & Gas industry. Specific support will be provided to enable Ugandan providers to deliver training which meets these standards.

A communications campaign will be developed which stresses that only training which meets these agreed standards will be acceptable to employers in the Oil & Gas industry in Uganda. The Training Standards Sub-Committee will work with UNBS to develop a logo representing an 'Oil & Gas Skills Quality Kitemark' for Uganda. Only institutions which provide courses certified as meeting the agreed Oil & Gas standards will be permitted to use this Quality Kitemark. This will make it far easier for individuals to make informed decisions about which training courses they want to take up, enabling them to identify high quality industry recognised training courses which will enhance their job prospects.

#### **4.2.2.3 Invite bids from interested training institutions wishing to deliver training to agreed Standards through an Oil & Gas Skills Standards Support Programme.**

Once Standards have been agreed and communicated the next stage is to provide Ugandan training providers with support to enable them to produce and deliver qualifications which meet these agreed Standards. The Government of Uganda will invite organisations to apply for funding from an Oil & Gas Skills Standards Support Programme. These Funds will be advertised on a competitive basis to stimulate a market for high quality, industry relevant training. International training providers with experience in delivering the agreed Standards e.g. OPITO, City & Guilds, API etc. will be encouraged to enter into partnership with Ugandan training providers. These partnerships will provide support to Ugandan institutions so that they are able to co-deliver training which meets the Standards required by the industry. International standard setting organisations will also be invited to apply where appropriate and relevant.

The Training Standards Sub-Committee will advertise the Skills Standards Support Programme internationally through industry bodies and IOCs to ensure that international training providers are aware of the opportunities in Uganda. There will also be briefing sessions for interested Ugandan training institutions where they will be given information as to how to make contact and discuss partnering with relevant international training providers.

Before submitting their bids international training providers will be expected to have carried out a comprehensive assessment of their prospective Ugandan partners to identify deficiencies against agreed Standards. Bids should contain clearly costed institutional improvement plans setting out how Ugandan institutions will be supported to attain standards over a specified time period.

The Skills Standards Support Programme will have tightly defined Terms of Reference specifying the Training Standards, Occupational Areas and Qualifications Levels which are being prioritised. Bids from training institutions will be assessed by the Training Standards Sub-Committee which will make the final decision as to which bids should be funded. Funding will be available in the Skills Standards Support Programme to procure essential equipment and invest in required training facilities; recruit and train staff; improve administrative and management systems; and to carry out direct training activities.

#### **4.2.2.4 Contract International Standard and Assessment bodies to assess and certify institutions to verify that they meet agreed standards**

After the Skills Standards Support Programme's initial bidding round has been completed and successful applicants identified, relevant International Standard and Assessment bodies will be invited to carry out a post-bid assessment of Ugandan institutions. In some cases these bodies may be the same organisations partnering with institutions in the bidding process.

This post-bid assessment will provide an accurate baseline position for the selected institutions. It also serves as a verification exercise to provide the Government with confidence that the actions and timings set out in institutions' bids to the Skills Standards Support Programme are credible and realistic. Any institutions whose bids are found to be inaccurate or unrealistic will have their application revised and, potentially, withdrawn.

Following this initial post-bid assessment, International Standards and Assessment Bodies will periodically return to Uganda as per an agreed work plan in order to assess Ugandan institutions and their international partners and certify them as being fit to deliver qualifications to the agreed international standards.

#### **4.2.2.5 International Standard and Assessment bodies to work with the Government of Uganda to develop local capacity to assess whether training meets agreed International Standards.**

The Standards agreed for Oil & Gas related Occupational Areas in Uganda are not intended to displace, replace or challenge the existing Ugandan qualifications system. The number of jobs predicted to be created in Oil & Gas and related sectors is relatively small, approximately 30,000 in total, a far smaller number than the wide ranging sectors of the Ugandan economy for which the BTNET system is preparing people for employment.

The introduction of Oil & Gas related Standards in Uganda can play a role in supplementing and developing capacity within the Government-run assessment system. The Directorate of Industrial Training (DIT) oversees a three-level trade testing system that certifies technical competencies acquired on the job. DIT employs a number of assessors who are responsible for operating this competency based testing system. It is important to note that the introduction of Oil & Gas Standards will not impact on the content of this testing system.



It is proposed that DIT Assessors benefit from capacity building training and mentoring from selected International Standard and Assessment bodies responsible for certifying that agreed Standards have been met for the Level 2 Crafts & Trades Occupational Areas on the list of Standards agreed by the Training Standards Sub-Committee. These DIT Assessors will work with their international counterparts so that they have the ability to conduct competence based assessments against agreed Standards. This will benefit Uganda as conducting these assessments will provide an additional source of revenue for DIT as well as developing Ugandan capacity in competence based assessments and reducing the overall cost to institutions of having to rely on international assessors.

#### **4.2.2.6 Work with East African petroleum producing nations to explore how a common set of Oil & Gas Training Standards can be introduced across the region**

Once the Training Standards Sub-Committee has agreed the list of approved Oil & Gas Standards for Uganda efforts should be made to harmonise this approach across the East African region. There is already a good level of information sharing amongst the current and future East African petroleum producing nations<sup>6</sup> and this should be built upon in order to unify the approach to Training Standards across the region.

The National Content Steering Committee should initiate a dialogue with its counterparts in Rwanda, Burundi, Kenya and Tanzania to showcase what Uganda has achieved to date on National Content and the approach it is taking to workforce skills development. This provides a platform to advocate for a common approach across East Africa so that the Training Standards list developed by Uganda eventually becomes an East African list. This will help to ease the movement of qualified workers across the Region and also enable the introduction of a more coordinated and holistic approach to workforce skills development which is truly regional in nature.

#### **4.2.2.7 Conduct future rounds of invitations to tender to expand the number of institutions in Uganda meeting agreed International Standards**

It is proposed that an additional bidding round for the Oil & Gas Skills Standards Support Programme be conducted in 2018.

This bidding round will enable more Ugandan institutions to partner with international training providers and deliver training which meets the agreed Standards required by the Oil & Gas industry in Uganda. This will further help to develop a high quality, competitive market for training within Uganda so that people wishing to enter the industry have a range of institutions and providers to choose from when deciding where to study.

If sufficient, sustainable funding is available through the establishment of a Petroleum Skills Development Fund (see Section 5 for further details) then it is recommended that further bidding rounds of the Oil & Gas Skills Standards Support Programme be conducted every two years from 2020 following the Oil & Gas Sector Skills Council's periodic review of agreed Standards for the Oil & Gas industry in Uganda.

#### **4.2.2.8 Periodically review agreed International Standards and update if necessary.**

Responsibility for reviewing and updating the list of approved Oil & Gas Standards will pass from the Training Standards Sub-Committee to the Oil & Gas Sector Skills Council (SSC).<sup>6</sup> See, for example, the level of information sharing achieved through the 7th East African Petroleum Conference and Exhibition held in Kigali, Rwanda from 4th to 6th March 2015. This conference was attended by the Governments of Rwanda, Burundi, Kenya, Tanzania and Uganda.

The SSC will review the approved Standards list every two years in partnership with industry to check that it is still fit for purpose and in line with Uganda and industry's needs.

#### **4.2.3 Implementation Timetable for Accreditation and Standards**

The implementation timetable for the Accreditation and Standards Activity Strand of the WSDSP is as follows:

**Table 11: Implementation Timetable for Accreditation and Standards**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Agree which International Standards should be used in Uganda.	MEMD/DoP, MoESTS, IOCs, UNBS	May 2015
Publicise these International Standards and communicate them to training institutions and members of the public.	MEMD/DoP, MoESTS, UNBS	June 2015 onwards
Invite bids from interested training institutions wishing to deliver training to agreed International Standards through an Oil & Gas Skills Standards Support Programme	MEMD/DoP, MoESTS, Fund Management Agency	1st August 2015- invitation issued 31st October 2015- contracts awarded and signed
Contract International Standard setting bodies to assess and certify institutions to verify that they meet agreed standards.	MEMD/DoP, MoESTS, Fund Management Agency	June 2015 onwards
International Standard setting bodies and international training providers to work with the Government of Uganda to develop local capacity within DIT to assess whether training meets agreed International Standards	MoESTS, MEMD/DoP, DIT	June 2015 onwards
Work with East African petroleum producing nations to explore how a common set of Oil & Gas Training Standards can be introduced across the region	National Content Steering Committee, MEMD/DoP	June 2015 onwards
<b>Medium-Term (3-5 years) and Long-Term (6-10 years)</b>		
Conduct future rounds of invitations to tender through the Oil & Gas Skills Support Programme to expand the number of institutions in Uganda meeting agreed International Standards.	MEMD/DoP, MoESTS, Oil & Gas Sector Skills Council (SSC).	2018, 2020 and 2022
Periodically review agreed International Standards and update if necessary.	Oil & Gas Sector Skills Council (SSC)	Biannually from 2017

## 4.3 Communications and Information Sharing

### 4.3.1 Communications and Information Sharing Issues

Sharing accurate and timely information on the job opportunities and skills required to work effectively in the Oil & Gas and related sectors in Uganda is essential if the WSDSP is to be successfully implemented.

Public awareness in Uganda that the country is developing an Oil & Gas industry is high but specific knowledge of the skills requirements and job opportunities is low. This creates a situation whereby citizens have raised expectations of the benefits which they will derive without accurate knowledge of the likely size or scale of these benefits or of how they personally can seek employment within the sector.

Improved communications and information sharing is required so that:

- Individuals wishing to work in Oil & Gas and related sectors are aware of the number and type of opportunities available.
- Individuals wishing to work in Oil & Gas and related sectors know which training courses and qualifications will help them to enter the industry.
- Oil companies, the Government of Uganda and training providers have access to reliable and timely labour market information so that they can take advantage of the country's existing labour market pool when filling vacancies.
- Training providers know the content and standard of training that Oil & Gas employers require them to deliver.
- International Oil Companies, Engineering, Procurement and Construction (EPC) contractors and sub-contractors have access to a database from institutions and training providers containing details of Ugandans trained to internationally accepted industry standards so that they can offer them employment.

### 4.3.2 Communications and Information Sharing Activities

The relevant objective of the WSDSP is **Objective 3** which is to:

- Enhance communications and information sharing on Oil & Gas Skills requirements including the development of improved Labour Market Information relevant to the needs of the sector.

This section of the WSDSP contains a series of activities designed to raise awareness of Oil & Gas and related sector skills amongst members of the public as well as with key stakeholders and individuals and groups with a particular interest in securing employment in the industry. It also explains the activities which will be taken to enhance knowledge and learning of skills issues within the sector and to improve the availability of relevant labour market information. The specific activities in the WSDSP to address Communications and Information Sharing issues are set out below:

### 4.3.2.1 Develop and Implement an Oil & Gas Workforce Skills Communications Strategy & Plan

The Oil & Gas Workforce Skills Communications Strategy & Plan involves a range of inter-related activities designed to raise public awareness of the job opportunities available in the Ugandan Oil & Gas and related sectors and the training activities available to enable people to benefit from these opportunities. This Strategy & Plan will not be a standalone document but rather it will be integrated within DoP's National Content Communications Strategy. The Workforce Skills Communications Strategy & Plan will also encourage people to apply for jobs in the sector and foster better links between government, oil and gas employers and training providers. Proposed communications activities include:

- Hold a high profile event to launch the WSDSP with accompanying media communications (newspapers, radio and television) in May 2015.
- Develop an Oil & Gas Sector Skills Quality 'Kitemark' or logo with UNBS to be used by all institutions and training providers who deliver qualifications which meet the requirements of the official list of Oil & Gas Standards drawn up by the Training Standards Sub-Committee. Organise and implement a communications campaign centred on this Quality Logo so that the Ugandan public are able to recognise high quality, industry-relevant training which will help them to secure employment in Oil & Gas and related sectors. This communications campaign will make use of radio, television, newspapers and billboards to cement the Quality Logo in the public consciousness.
- Hold a series of awareness-raising Oil and Gas Skills Roadshows hosted by employers and training providers. Each Roadshow will focus on a different Occupational Area e.g. welding, driving, civil/structural engineering etc. and be hosted in a different location e.g. Kampala, Hoima etc. It will provide an opportunity for members of the public who are interested in jobs in the Oil and Gas sector to find out more about the opportunities and training courses available. Indeed people will be able to sign up and register with training providers at each event. Events will be organised in conjunction with employer associations and organisations such as the Bunyoro Business Club and the Private Sector Foundation.
- Conduct an international promotional campaign utilising IOCs' networks and communication channels to raise awareness of opportunities in Uganda and encourage international training providers to begin working in the country. This promotional campaign will involve Oil & Gas industry skills bodies such as OPITO and PetroSkills to reach as wide a network as possible of relevant international training providers. The international nature of this campaign means that it can also be used to attract qualified members of the Ugandan diaspora to work in the Oil & Gas industry in Uganda.
- Run an ongoing awareness raising campaign on Oil & Gas Skills through the Ugandan media. This will involve a regular series of newspaper articles and radio interviews with a diverse range of people from the industry (e.g. DoP officials, IOCs, universities, VTIs, private training providers, apprentices and learners etc.).

This campaign will enable the public to hear a range of perspectives on Oil & Gas Skills so they get a fuller picture of the opportunities available and how to take advantage of them. The awareness raising campaign will also make use of online communications channels (Facebook, Twitter, Instagram etc.) where appropriate in order to reach as wide and diverse an audience as possible.

**4.3.2.2 Create a National Talent Register to i.) Enhance understanding of the existing skills available in the labour market and ii.) Formally record details of all Ugandans who have gained qualifications which meet the required Standards.**

The National Content Steering Committee will oversee the development of a National Talent Register. Provision for the establishment of a National Talent Register is contained within the Petroleum (Exploration, Production and Development) Act 2013. This Talent Register will consist of two discrete parts:

- i. A list of Ugandans working in the labour market who have relevant experience in priority occupational areas identified in the Demand Assessment e.g. welding, driving, civil/structural engineering etc. This list will be compiled from information provided through employers' associations and industry bodies e.g. Bunyoro Business Club has a list of 80 welders within their member organisations which will be added to the Register. The list will also build upon the existing database established by the Ministry of Gender, Labour and Rural Development (MoGLRD). The individuals on this list will be prioritised for competence based assessments by training providers. Training providers will then be able to deliver short courses and targeted training to these individuals so that they are able to gain qualifications which meet the Standards mandated by the Training Standards Sub-Committee.
- ii. A list of all Ugandans who have gained qualifications which meet the Oil & Gas Standards set by the Training Standards Sub-Committee. The individuals on this list will be prioritised for employment within IOCs, EPC contractors and related sub-contractors. This list will be updated through records provided by universities, vocational training institutions and private training providers.

The National Talent Register will be available through a secure online password protected portal so it can only be accessed by authorised parties.

The National Talent Register is an important step in achieving coherent and coordinated action on skills and employment. By providing a single platform to record the contact details and locations of individuals working in the labour market with potentially relevant skills it enables training providers to rapidly target competence based assessment and training activities. By also providing a comprehensive list of all individuals who have achieved the Standards required to work in the industry it also provides a platform to simplify recruitment for IOCs, EPC contractors and sub-contractors.

It is important to stress that the National Talent Register is intended to be an important tool in ensuring that as many Ugandans as possible are able to secure employment within Oil & Gas and related sectors. By linking the National Talent Register to contractual requirements of contractors and sub-contractors it will provide a strong link between

internationally accredited training and firm employment opportunities within relevant sectors. The National Talent Register is not intended to act as an impediment to employers, contractors and sub-contractors who wish to take on Ugandans who don't have internationally accredited qualifications, rather it is designed to act as a 'safety net' to ensure that suitably qualified and experienced Ugandans do not miss out on employment opportunities.

There are a number of Oil & Gas employers who run their own work-based training programmes which accept candidates according to a range of formal and non-formal entry requirements. An example here would be Baker Hughes who has enrolled 13 Ugandan graduate engineers in their LEAD programme to develop them as Field Engineers and also offer international assignment programmes to widen their engineer's experience in other countries. The Government of Uganda commends such efforts and encourages as many employers as possible to offer their own high quality work-based training programmes.

**4.3.2.3 Create an Oil & Gas Training Providers Forum for all universities, institutions and training providers (public and private) in Uganda which are delivering training which meets the agreed Standards**

In order to improve communications and information sharing between training providers and employers the National Content Steering Committee will oversee the creation of an Oil & Gas Training Providers Forum. Membership of this Forum will be open to all training providers (public and private) who are accredited to deliver qualifications which meet the Standards agreed by the Training Standards Sub-Committee. The Forum will meet every quarter and presents an opportunity for Providers to discuss training issues with the Government, IOCs and other Oil & Gas employers. This helps to facilitate and streamline communications by having a single forum for training providers to discuss concerns and raise issues with employers and government (and vice versa).

**4.3.2.4 Commission specific research studies to enhance knowledge and information on Oil & Gas Skills**

The National Content Steering Committee will have the mandate to commission and conduct specific research studies in areas of particular interest regarding Oil & Gas Skills. Such research may be conducted where stakeholders feel that there is a particular lack of information and knowledge which is hindering effective skills development. Commissioned research studies will be publicised and disseminated to enhance learning and understanding across a wide range of stakeholders. WSDSP activities and strategies will be assessed in light of research findings and adjusted where necessary to maximise the effectiveness of implementation.

**4.3.2.5 Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for labour market, knowledge enhancing and information sharing activities to ensure sustainability.**

The 'Skilling Uganda' Strategic Plan for 2011-2020 makes provision for the establishment of a number of Sector Skills Councils (SSCs) including an SSC for the Oil & Gas sector. The proposed list of functions to be carried out by SSCs includes (i) identification and analysis of skill requirements in the economic sector; (ii) development of industry skills strategies and training plans to achieve priority goals;

(iii) establishing occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF); (iv) evaluating performance in skills development; (v) regulation of public and private sector training providers; and (vi) promoting enterprise based training in the sector.

There is considerable overlap between this list of proposed functions and the activities to be carried out in this WSDSP under the guidance of the National Content Steering Committee. The National Content Steering Committee should therefore work with MEMD/DoP, MoESTS, IOCs, employers and training providers to best consider how and when these tasks should be transitioned to the new Oil & Gas SSC once it becomes fully operational.

#### **4.3.2.6 Implement measures to secure stable long-term employment for trained Ugandans including:**

**i.) facilitating the transfer of trained workers into employment in other sectors or other countries through an Enterprise Enhancement Centre and ii.) creating employment opportunities through the establishment of a Ugandan National Oil Company.**

It is important within the WSDSP to consider strategies to ensure that Ugandan workers trained under this Strategy & Plan are able to secure stable, long-term employment. Although these measures and strategies are necessary it is important not to overstate the scale or extent of the problem. By gaining qualifications which meet internationally recognized Standards for Oil & Gas and Construction and related trades all of these individuals will have substantially enhanced their lifetime earnings and employability prospects. Many of their qualifications will be recognized across a wide range of industry sectors and a number of them may choose to enter these industries directly instead of taking up Oil & Gas related opportunities.

In addition activities within the WSDSP to encourage internationally accredited provision in sectors such as construction and the related trades will have a positive impact beyond Oil & Gas by helping to create a vibrant, responsive training market which will raise standards across Uganda.

Nevertheless, despite these wider benefits, the Demand Assessment demonstrates that there will be a short term peak in demand for labour during the construction phase. An Enterprise Enhancement Centre (EEC) will be created under the guidance and direction of the National Content Steering Committee. This Centre will have a number of key objectives (some of which are beyond the remit and scope of the WSDSP) including enhancing the capacity of Ugandan companies to bid for and secure work from the Oil & Gas industry. <sup>7</sup>

*The primary purpose of the Enterprise Enhancement Centre is to assist suppliers to get ready for the construction phase and prepare the after-peak period. It will raise the management standards of Ugandan companies to increase their ability to participate in the construction phase. It will do this by providing training and advice on answering tenders, understanding the general terms and conditions of an international contract and of the mandatory safety and environment standards of oil and gas operations. It will also be a space for developing relationships between Ugandan entrepreneurs and national or international investors and donors (IBS 2014).*

One of the roles of the EEC with direct relevance to the WSDSP is to facilitate the transfer of trained workers from the Oil and Gas construction phase into employment in other sectors or other countries. It will achieve this by creating a directory of trained workers who are coming to the end of their employment contracts. The EEC will then be active in making connections and linkages with employers and contractors in other industry sectors e.g. bridges, dams, roads etc. and with Oil & Gas employers, contractors and sub-contractors working in Kenya, Tanzania, South Sudan etc. The EEC will thus provide a mechanism for ensuring that Ugandan workers are able to continue to utilize their newly gained skills after the initial construction phase is over.

Another means by which trained Ugandan workers will be employed is through the creation of a Uganda National Oil Company. This Company will take on trained and experienced Ugandan engineers, managers and technicians to supplement the jobs provided by IOCs, contractors and sub-contractors. Provision for the establishment of a National Oil Company is contained within Sections 42 and 43 of the Petroleum (Exploration, Development and Production) Act 2013.

#### **4.3.3 Implementation Timetable for Communications and Information Sharing**

The implementation timetable for the Communications and Information Sharing Activity Strand of the WSDSP is as follows:



**Table 12: Implementation Timetable for Communications and Information Sharing**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Hold a high profile event to launch the WSDSP with accompanying media communications.	MEMD/DoP & National Content Steering Committee	May 2015
Organise and implement a communications campaign centred on the Oil & Gas Skills Quality Logo so that the Ugandan public are able to recognise high quality, industry-relevant training which will help them to secure employment in Oil & Gas and related sectors.	MEMD/DoP, MoESTS & UNBS	October 2015 to March 2016
Hold a series of awareness-raising Oil and Gas Skills Roadshows hosted by employers and training providers.	MEMD/DoP, MoESTS, UGAPRIVI & IOCs	October 2015 to March 2016
Conduct an international promotional campaign utilising IOCs' networks and communication channels to raise awareness of opportunities in Uganda and encourage international training providers to begin working in the country.	MEMD/DoP	August to December 2015
Run an ongoing awareness raising campaign on Oil & Gas Skills through the Ugandan media.	MEMD/DoP & MoESTS	March 2016 onwards
Create a National Talent Register to i.) enhance understanding of the existing skills available in the labour market and ii.) formally record details of all Ugandans who have gained qualifications which meet the required Standards	National Content Steering Committee, MEMD/DoP, MoGLRD & designated service provider	July 2015
Create an Oil & Gas Providers Forum for all universities, institutions and training providers (public and private) in Uganda which are delivering training which meets the agreed Standards	National Content Steering Committee, MEMD/DoP	January 2016
<b>Medium-Term (3-5 years)</b>		
Evaluate impact of Oil & Gas Communications Strategy and revise and update as appropriate.	MEMD/DoP & MoESTS	2018
Continue to maintain and update National Talent Register.	National Content Steering Committee, MEMD/DoP, MoGLRD & designated service provider	Ongoing from July 2015



Continue to operate Oil & Gas Providers Forum.	National Content Steering Committee, MEMD/DoP	Ongoing from February 2016
Commission and conduct targeted research	National Content Steering Committee, MEMD/DoP	Ongoing from 2017
<b>Long-Term (6-10 years)</b>		
Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for labour market, knowledge enhancing and information sharing activities to ensure sustainability.	MEMD/DoP, MoESTS, IOCs, employers and training providers.	Ongoing from 2017
Implement measures to secure stable long-term employment for trained Ugandans including: i.) facilitating the transfer of trained workers into employment in other sectors through an Enterprise Enhancement Centre and ii.) creating employment opportunities through the establishment of a Ugandan National Oil Company.	National Content Steering Committee, MEMD/DoP	Ongoing from 2019

# SECTION 5

---

Activities to address specific constraints at Qualifications Levels 1, 2, 3 and 4.



## 5.1 Addressing constraints at Qualification Level 1 (Basic Skills and Entry-Level)

### 5.1.1 Background and issues regarding additional jobs at Qualifications Level 1 (Basic Skills and Entry-Level).

The Demand Assessment estimated that approximately 11,500 additional jobs (7,100 excluding petroleum sales) would be created at Qualifications Level 1 over the next ten years, representing 39% of the total number of predicted additional jobs. The peak for these jobs is likely to be during the construction phase from 2016 to 2018.

Demand Assessment analysis shows that just under 6,000 of these predicted additional Level 1 jobs will be created in three occupational areas, namely: Civil/ Structural Engineering and Construction, Hospitality & Catering and Security.

Nearly ninety percent of these additional Level 1 positions require less than 2 years' relevant work experience with the remaining jobs requiring between 2 and 5 years of experience.

The majority of these jobs will not require any formal work-related qualifications and it is likely that they will be filled by a combination of: i.) people who are already in the labour market who hold a mixture of qualifications, including those with no formal qualifications and ii.) recent graduates from vocational and technical institutes and secondary schools as well as those who have not been educated beyond primary level.

Despite not requiring formal technical qualifications, all roles will require job holders to have relevant Health & Safety certification and a basic command of the English language (which is the lingua franca of the IOCs in Uganda).

**So long as sufficient people can be provided with Health & Safety certification then there should not be a significant issue in ensuring that all of these Level 1 positions are taken up by Ugandans.**

Nationally there are more than sufficient Ugandans with adequate English language competence to take up these roles but additional efforts will be required to raise English proficiency levels if local residents of the oil producing areas are to benefit in significant numbers from these job opportunities.

The availability of these Level 1 jobs presents a significant opportunity for the Government of Uganda to take action to address youth unemployment as well as taking steps to address rural poverty and enhance the economic empowerment of women. Targeted measures to ensure that as many of these Level 1 jobs as possible go to these priority groups will require investment in work-readiness training (to, for example, strengthen candidates' communication and analytical skills).

### 5.1.2 Specific Activities to address constraints at Qualifications Level 1 (Basic Skills and Entry-Level)

The relevant objective in the WSDSP is **Objective 4** which is to:

- Ensure that all additional Level 1 jobs created in Oil and Gas and related sectors go to Ugandans between 2015 and 2025.

Specific activities to achieve this objective are set out below.

#### 5.1.2.1 Agree Standards and Communicate opportunities

These activities are already set out in Section 4.2 and 4.3 of the WSDSP. The Training Standards Sub-Committee will specify which Standards are acceptable to the Oil & Gas industry in Uganda for Health & Safety Certification and English language competence. Then there will be a series of communications activities (including a national media campaign and a series of Skills Roadshows involving employers, training providers and local employer associations etc.) to raise awareness of the jobs which will be available and the training courses which individuals need to take up in order to be eligible for these jobs.

#### 5.1.2.2 Mandate District Labour Offices, working in partnership with NGOs and employers' associations, to create (or expand) databases of individuals interested in working in Level 1 roles in Oil & Gas and related sectors.

Alongside the communications campaign and Skills Roadshows, District Labour Offices will be encouraged, through the Ministry of Gender, Labour and Rural Development (MoGLRD) to create (or build on existing) local level databases of individuals registering an interest in employment in Level 1 roles within Oil & Gas and related sectors. These databases will be developed with the support of local employers' associations and NGOs (such as Bunyoro Business Club and Living Earth). All individuals expressing a definite interest in working in Level 1 roles in occupational areas such as construction, hospitality & catering and security will have their names and basic personal information recorded with their local District Labour Office. These local databases will then be made available to training providers, employers and sub-contractors wishing to recruit locally.

#### 5.1.2.3 Encourage Health & Safety training providers to expand relevant provision through the provision of grants and financial incentives under a Health & Safety Certification Programme

There are a number of private training providers in Uganda which deliver Health & Safety training. The short duration of such courses and low initial capital investment requirements of delivering such courses, coupled with the mandatory nature of such training for certain jobs means that Health & Safety is an occupational area which is well suited to private delivery.



The numbers of people requiring certification is large- approximately 7,000- and the time available to carry out training is short due to the 2016-2018 peak in construction phases jobs. Many of the people who will be attracted by the prospect of entry level jobs in the three major level 1 occupational areas (construction labourers, hospitality & catering and security) are also likely to find the cost of Health & Safety training to be a prohibitive barrier to entry.

As a result the WSDSP recognises that action will be required to catalyse the market for Health & Safety training provision if sufficient numbers of people are to be certified in time.

Support to the Health & Safety training market can be provided through a competitive Call for Proposals under a Health & Safety Certification Programme. The Terms of Reference for this Call will be very clear in specifying the number of people to be trained and the Standards against which they should be trained. Preference will also be given to Proposals which prioritise Health & Safety training for residents of the oil producing areas. Support available to training providers through this Call for Proposals will take the form of:

- Matching grant funds to offset a proportion of the training cost. e.g. if a provider is offering Health & Safety certification at \$200 then they could apply, for example, for a grant of up to \$100 per certification in order to reduce the cost payable by members of the public thus reducing barriers to entry.
- Full grant funding for certification of priority groups. If the Government wishes to prioritise employment opportunities for certain groups of people (such as those living in the oil producing areas or individuals who are classed as 'poor' or 'vulnerable') then full grant funding to deliver 'free' training can be made available. Training providers will need to provide documentary evidence that individuals who they have trained and certified meet the eligibility criteria.
- An important principle of the financial support made available through this Call for Proposals is that grant fund and payments must be linked to outcomes i.e. training providers will only receive the full amount of grant funding which they have applied for once learners have secured employment (10% of grant funding will be withheld until employment has been secured). This is to encourage training providers to create linkages with Oil & Gas employers and provide them with details of those individuals who have been trained so that their chances of securing relevant employment are increased.

The National Content Steering Committee will oversee the development of the Call for Proposals which will be managed by the Technical Assistance and Fund Management Agency contracted by MEMD/DoP.

#### **5.1.2.4 Work with employers, training providers and prospective employees to introduce a 'job guarantee' scheme to reduce the risks associated with paying for Health & Safety training and remove barriers to entry.**

Individuals wishing to take up Level 1 positions within Oil & Gas and related sectors may find the cost of paying for a Health & Safety training course to be a significant barrier to entry. Many individuals may not have access to the funds to pay for training up front. They would be taking a significant risk in borrowing

money whilst they have no guarantee that they will secure employment at the end of the training. Likewise, if individuals are not going to be required to pay for training up-front then there is a risk from the employer's perspective there is a risk that they invest resources in training people who do not subsequently take up employment.

This issue can be overcome by developing a contractual agreement between prospective employees, training providers and employers. Training providers will make agreements with employers as to how many people they require to be trained with Health & Safety certification. Training providers will then advertise and source people to be trained. Before undergoing training individuals must then sign agreements that their Health & Safety training will be paid for up front but that they must repay the cost of certification over a number of months through deductions from their salary payments. This arrangement mitigates the risk to both individuals and employers. The cost of paying for training is no longer a barrier to individuals whilst training provides have an incentive to only select people who they believe are serious and will actually secure employment. To mitigate the risk of people not entering work or leaving employment early, training providers can set their training fees at a level which factors in a certain default percentage for trainees who do not secure work.

The National Content Steering Committee will oversee the operation of this scheme by appointing a technical support agency to act as a brokerage service to develop relationships and agreements between training providers and employers.

#### **5.1.2.5 Provide funding to enable training providers to conduct rapid targeted short work-readiness training courses and rapid English language assessments where necessary through a Traineeship Training & English Language Assessment Programme.**

One of the main concerns raised by employers during the course of the Demand & Supply Assessment was the work-readiness, behaviour and attitude of potential Ugandan employees. It is important in the communications strategy accompanying the WSDSP to stress that the objective that all Level 1 jobs go to Ugandan citizens does not mean that Ugandans are guaranteed a job for life. The Level 1 jobs commitment in the WSDSP means that Ugandans will have the opportunity to take up these roles but this is no guarantee that they will not be dismissed by their employers if they fail to perform to expectations.

In order to address employers' concerns about the work-readiness of potential Ugandan employees the WSDSP makes provision for work-readiness preparation courses through Traineeships. Traineeships are short courses (maximum of six months in duration) which are designed to support people to take their first steps into waged employment. The critical criteria for entry onto these Traineeships will be the motivation to secure a job rather than any existing formal qualifications. Training providers will be responsible for interviewing and screening applicants in order to select those who are genuinely motivated to succeed.

Traineeship course content will be loosely modelled on the UK's successful delivery model but adapted to the Ugandan situation by local providers. 8 Traineeships will include training on:



The UK Government introduced Traineeships in 2011 in order to address the rising problem of youth unemployment and employers' complaints that many young people lacked the work-readiness skills (including communication, analytical, functional English and Maths skills as well as basic traits such as punctuality and time keeping) to secure employment. UK Traineeships are targeted at 16 to 24 year olds who are ready to take

- Basic English and Maths
- Communications Skills
- Punctuality and Time Keeping
- Workplace interaction and working with others
- Work experience
- Analysis and Problem Solving

Training providers will work closely with employers (including the contractors and sub-contractors who will eventually offer these Level 1 job roles) to ensure that course content is relevant to employers' needs. In total 2,500 people will undergo Traineeships as part of this programme. The details of all individuals who successfully complete Traineeships will be entered into the National Talent Register and they will then be prioritised for employment with relevant contractors and sub-contractors.

The Government of Uganda wishes to utilise the availability of Level 1 jobs within Oil & Gas and related sectors to address youth unemployment, rural poverty and to assist the economic empowerment of women. In order to ensure that as many of these people as possible benefit from employment opportunities then full grant funding will be made available for Traineeships incorporating English language learning for priority groups.

An Invitation to Tender will be issued to identify and contract training providers to deliver these Traineeships. Training providers will need to provide documentary evidence that individuals who they have trained and certified meet the eligibility criteria.

Funding will be paid on results i.e. for every individual who takes the training course and subsequently passes the Traineeship and English language assessment rather than for every individual enrolled on a course.

In addition to Traineeships and work readiness training, efforts will also need to be made to ensure that Ugandan workers have the necessary level of English Language competence to work effectively in the Oil & Gas industry. Uganda as a whole has generally high levels of English language competence but if affirmative efforts are made to engage women, unemployed youth and the rural poor then additional assessment and English Language training will be required. An Invitation to Tender will be issued to identify and contract training providers to carry out these rapid assessments as part of an English Language Assessment & Training Programme. Given the significant volume of individuals requiring testing and the basic level of competence required for entry it is expected that the unit cost for delivering this assessment should be significantly lower than then \$190 charged per IELTS candidate by the British Council in Uganda. It is anticipated that 3,000 individuals will undergo English language assessment under this programme.

### 5.1.3 Implementation Timetable for addressing constraints at Qualifications Level 1 (Basic Skills and Entry-Level)

The implementation timetable for the Qualifications Level 1 Activity Strand of the WSDSP is as follows: their first steps into employment. They combine work experience and pre-employment training to help young people successfully find a job or Apprenticeship.

**Table 13: Implementation Timetable for Qualifications Level 1**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Agree Standards and Communicate Opportunities (already covered in Sections 3.1 and 3.3 of the WSDSP)	MEMD/DoP, MoESTS, UNBS & IOCs	June 2015 onwards
Mandate District Labour Offices, working in partnership with NGOs and employers' associations, to create databases of individuals interested in working in Level 1 roles in Oil & Gas and related sectors.	MoGLRD	June 2015 onwards
Encourage Health & Safety training providers to expand relevant provision through the provision of grants and financial incentives under a Health & Safety Certification Programme	National Content Steering Committee, MEMD/DoP, Technical Assistance Agency.	Call for Proposals January 2016 Contracts signed May 2016

Work with employers, training providers and prospective employees to introduce a 'job guarantee' scheme to reduce the risks associated with paying for Health & Safety training and remove barriers to entry.	National Content Steering Committee, MEMD/DoP, Technical Assistance Agency.	From February 2016
Provide funding to enable training providers to conduct work-readiness Traineeship Training programmes and rapid English language assessment as part of a Traineeship Training & English Language Assessment Programme.	National Content Steering Committee, MEMD/DoP, Technical Assistance Agency.	Call for Proposals February 2016 Contracts signed June 2016
<b>Medium-Term (3-5 years) &amp; Long-Term (6-10 years)</b>		
Continue to maintain and update District Labour Office databases of interested individuals.	MoGLRD	Ongoing from August 2015
Review progress with provision of Health & Safety Training, Traineeship training and targeted English language assessment and training and adapt Strategy & Plan to address gaps as necessary.	National Content Steering Committee, MEMD/DoP	2018

## 5.2 Activities to address constraints at Qualification Level 2 (Crafts and Trades)

### 5.2.1 Background and issues regarding additional jobs at Qualifications Level 2 (Crafts and Trades)

The Demand Assessment estimated that approximately 11,000 additional jobs would be created at Qualification Level 2 over the next ten years, representing 38% of the total number of predicted additional jobs. The peak for these jobs is likely to be during the construction phase from 2016 to 2018.

Demand Assessment analysis shows that nine occupational areas are each predicted to generate over 400 additional Level 2 jobs, namely:

- Civil/Structural Engineering & Construction
- Driving
- Welding
- Scaffolding
- Mechanical Trades
- Heavy Equipment Operator
- Painting
- Carpentry
- Electrical Trades

Together these nine occupational areas are expected to account for 9,400 additional Level 2 jobs.

73% of these jobs require between 2 and 5 years of relevant experience whilst 21% require less than 2 years' experience.

This suggests that, in order to meet the almost immediate labour requirements of the construction phase, a significant number of workers will need to be sourced from the existing labour market pool. Relying solely on the supply of graduates from Uganda Technical Colleges (UTCs) and Vocational and Technical Institutes (VTIs) will be insufficient to meet demand.

The Supply Assessment found that, at Qualification Level 2, there is a significant gap between short-term demand in construction and related trades and the predicted institutional supply of skills. There are also serious questions as to the extent to which the current institutional supply of Level 2 skills meets the quality requirements of the Oil & Gas industry in certain occupational areas. Urgent action to expand relevant private sector provision, industry-based training and efforts to tap the existing skills and competencies within the labour market pool will all be required in order to meet demand. Utilising contractual and regulatory requirements to ensure that EPC contractors take responsibility for training and employing Ugandans with Level 2 skills will have to be an essential part of this strategy.



## 5.2.2 Specific Activities to address constraints at Qualifications Level 2 (Crafts and Trades)

The relevant objective in the WSDSP is Objective 5 which is to:

- Ensure that 10,000 Ugandans secure an industry relevant and recognised Level 2 qualification by 2025.

Specific activities to achieve this objective are set out below.

### 5.2.2.1 Agree Standards and communicate opportunities.

These activities are already set out in Section 3.2 and 3.3 of the WSDSP. The Training Standards Sub-Committee will specify which Standards are acceptable to the Oil & Gas industry in Uganda at Level 2 for the following occupational areas:

Civil/Structural Trades	Tanker & HGV Driving	Construction Plant Operations
Carpentry	Welding	Pipe Fitting
Painting	Electrician	Vehicle Mechanics
Plumbing	Scaffolding	

Then there will be a series of communications activities (including a national media campaign and a series of Skills Roadshows involving employers, training providers and local employer associations etc.) to raise awareness of the jobs which will be available and the training courses which individuals need to take up in order to be eligible for these jobs.

### 5.2.2.2 Expanding institutional provision through partnerships with international training providers to deliver against agreed Standards through a Skills Standards Support Programme.

Section 4.2 of the WSDSP provides details of the Oil & Gas Skills Standards Support Programme. This Programme will be launched to stimulate a market for high quality, industry relevant training. International training providers with experience in delivering the agreed Standards will be encouraged to enter into partnership with Ugandan training providers. These partnerships will provide support to Ugandan institutions so that they are able to co-deliver training which meets the Standards required by the industry.

The Training Standards Sub-Committee will advertise the Skills Standards Support Programme internationally through industry bodies and IOCs to ensure that international training providers are aware of the opportunities in Uganda. There will also be briefing sessions for interested Ugandan training institutions where they will be given information as to how to make contact and discuss partnering with relevant international training providers.

The Skills Standards Support Programme will have tightly defined Terms of Reference (ToRs) specifying the Training Standards, Occupational Areas and Qualifications Levels which are being prioritised. For Level 2 provision while the ToRs will cover all Occupational Areas set out in section 5.2.2.1 they will provide particular emphasis on Welding and Civil/Structural Trades.

A variety of partnership and delivery models will be considered for Level 2 provision under the Skills Standards Support Programme including:

- Partnerships between international training providers and Ugandan public institutions
- Partnerships between international training providers and Ugandan private institutions
- Partnerships between Ugandan public institutions and private training institutions utilising sub-contracting arrangements
- Implementation modalities whereby international training providers seek to establish a Ugandan registered entity to deliver training.

Whilst activities under the Skills Standards Support Programme provide a strong basis for delivering high quality industry-relevant training across a range of Level 2 Occupational Areas in reality it will take a couple of years for the benefits of this Programme to lead to trained and work-ready Ugandans. Significant investment in systems, management and organisational processes, trainers, facilities and equipment will be required to enable Ugandan institutions to reach the specified Standards and this may take some time to achieve. It is anticipated that 5,000 Ugandans will gain relevant Level 2 qualifications through the Skills Standards Support Programme.

Given that the peak in demand for Level 2 jobs is predicted to occur between 2016 and 2018 it is important to also pursue other activities, beyond institutional provision, to rapidly increase the number of qualified and work-ready Ugandans.

### 5.2.2.3 Expansion of activities related to the Rapid Assessment and Provision of Short Training Courses within the Labour Market through the establishment of a Labour Market Assessment and Training Fund.

Swift and coordinated action is required in order to rapidly increase the number of qualified Ugandan workers in relevant Level 2 occupational areas. The most effective way of achieving this rapid increase is by tapping into the skills and experience of Ugandan workers in the labour market. Many Ugandan workers have skills but lack formal certification and some of the more specialised training required to meet the Standards agreed with the Oil & Gas industry. In order to address this situation, the WSDSP proposes a five-stage approach.

**Stage 1: Identify prospective workers in priority occupational areas** through the National Talent Register (explained in Section 4.3.2.2) which contains a list of Ugandans working in the labour market who have relevant experience in priority occupational areas identified in the Demand Assessment. This list will be compiled from information provided through employers' associations and industry bodies as well as through interest expressed following communications campaigns targeted at members of the public.

**Stage 2: Assess the competencies of prospective workers.** Industry-experienced and accredited training providers will assess the competencies of workers identified through the National Talent Register. Competency assessments will be carried out against the agreed Standards for each Occupational Area as agreed by the Training Standards Sub-Committee.

**Stage 3: Provide targeted tailor-made short courses to address deficiencies in competence against agreed Standards.** Training providers will be responsible for developing and delivering short courses for prospective workers which specifically address the deficiencies identified during the competency assessment. To take account of the fact that the majority of workers will already be in full-time employment training providers will utilise a range of flexible delivery methods to provide such training include evening and weekend sessions and on-the-job training in the workplace.

**Stage 4: Certify workers as competent against agreed Standards.** Once training providers have delivered targeted short courses they will then be responsible for assessing and certifying workers as competent against the specific Standards for each Occupational Area. Once workers are certified as competent they will receive a certificate setting out details of their new qualification.

**Stage 5: Create linkages between certified workers and Oil & Gas employers to ease the transition to employment in the sector.** All certified workers will have their contact details entered into the second part of the National Talent Register. This contains a list of all Ugandans who have gained qualifications which meet the Oil & Gas Standards set by the Training Standards Sub-Committee. The individuals on this list will be prioritised for employment within IOCs, EPC contractors and related sub-contractors and their details will be shared with all relevant employers. Indeed in some cases there will be a contractual requirement for contractors and sub-contractors to employ qualified personnel from this list. The cost of training is likely to be a significant barrier which

prevents existing workers from upgrading their skills. The unit cost of assessing and delivering training to agreed international Standards can be significantly higher than the unit cost of Level 2 training in Ugandan BT/VET institutions and is likely to be prohibitively expensive for many workers.

Financing will therefore be made available, through a competitive Labour Market Assessment and Training Fund, to facilitate the five Stages outlined above. Accredited training providers will be able to submit bids to this Fund detailing how many people they believe they can train against agreed Standards in specific Occupational Areas. Training providers will be able to use Funds to assess, train and certify Ugandans in the existing labour market. There are already a few private training providers in Uganda who operate in this field, notably Q-Sourcing and OGAS, and the purpose of this Fund is to remove barriers and enable providers to expand the scope of their provision as well as encouraging new providers to enter the market.

The Labour Market Assessment and Training Fund will be overseen by the National Content Steering Committee which will contract a dedicated Fund Management Agency to oversee the implementation and operation of the Fund. Bids will be assessed on a competitive basis, taking into account the relative unit cost of proposed provision. Proposals to develop innovative cost sharing mechanisms (for example with employers) will be encouraged. Funds will be released to providers on a performance related basis i.e. taking into account the number of workers who attain certification against Standards.

The Labour Market Assessment and Training Fund will consider proposals related to all occupational areas listed in Section 5.2.2.1 with a particularly strong emphasis on Civil/Structural Trades, Welding and Driving as these three occupational areas alone are predicted to require over 6,000 additional Level 2 jobs. It is anticipated that 4,000 Ugandans will gain relevant Level 2 qualifications through the Labour Market Assessment and Training Fund.

### 5.2.2.4 Strengthening linkages between training providers and employers through the Training Providers Forum and development of trainee matching services.

Enhancing linkages between training providers and employers is important as it eases learners' transition from training to employment and ensures that providers understand what employers are looking for in newly trained personnel. In short a strong connection between employers and training providers offers a valuable link between skills demand and skills supply.

The Oil & Gas Training Providers Forum provides an excellent opportunity to develop strong linkages between training providers and employers. The quarterly Training Providers Forum will enable providers and employers to discuss issues and develop a stronger understanding of needs. Training providers and employers will be encouraged to develop trainee matching services whereby a particular provider will prepare a group of trainees for future employment with a particular employer. This matching service could involve workplace immersion visits for trainees and the delivery of tailored training sessions focused on specific employer needs so that trainees will be considered 'work ready'.

Details of trainee matching services will be recorded in the National Talent Register and the Training Providers Forum will present an opportunity to showcase best practice in this field and encourage other training providers and employers to develop similar schemes.

#### **5.2.2.5 Development of Apprenticeship training programmes and incorporation within contractual requirements.**

Apprenticeships are a form of vocational qualification consisting of a combination of practical on-the-job training combined with theoretical learning. They often involve a three way partnership between apprentice, employer (who provides the on-the-job element of the programme) and training provider (who provides the classroom-based theoretical aspect and also delivers the competence based assessment of on-the-job learning). Apprenticeships allow people to 'earn whilst they learn' and enable employers to play an active role in develop the skills of their employees. As Apprenticeships are competence based there is no specified maximum or minimum learning time but, globally, a Level 2 Apprenticeship will generally take between 1 or 2 years to complete.

The wage returns of Apprenticeship are considerable, often much higher than the returns to other types of Level 2 qualifications. This means that Apprenticeships represent a worthwhile investment of Government funds. In England, academic research found that the Net Present Value (NPV) of benefits over costs is estimated, per Level 2 Apprenticeship, to be around \$109,500.9 This represents a return of \$12 for every \$1 of state funding- considerably higher than for other vocational qualifications.

The WSDSP encourages Oil & Gas employers to enter into partnerships with training providers to develop and deliver Level 2 Apprenticeship training programmes which meet agreed Standards.

It will be a contractual requirement for EPC contractors and sub-contractors to offer Apprenticeship places. It is these contractors and sub-contractors who will be delivering the vast majority of construction work for the Oil & Gas industry in Uganda. For every \$1 million of contract value contractors and sub-contractors will have a contractual requirement to offer at least 1 Apprenticeship place up to a maximum of 50 Apprenticeships per contract. EPC contractors and sub-contractors will be provided with a list of recognised and accredited training providers with whom they can partner to deliver these Apprenticeship places.

*McIntosh, S. (2007) 'Cost Benefit Analysis of Apprenticeships and other Vocational Qualifications'*

It is anticipated that 1,000 Ugandans will gain relevant Level 2 qualifications through the Oil & Gas Apprenticeship programme.

#### **5.2.2.6 Establishment of a Welding Centre of Excellence.**

Uganda is at an important stage in the development of its Oil & Gas industry. By having a concentrated and serious focus on skills development over the next few years Uganda has the potential to be a regional leader in Oil & Gas and related skills, providing training and labour for countries

such as Kenya, Tanzania, Mozambique, South Sudan and the Democratic Republic of Congo.

Strong leadership and a clear strategy will be required to turn this vision into reality. It also important that Uganda does not attempt to spread its skills development activities too thinly, achieving quantity at the expense of quality. A more effective approach in order to become a regional leader is to identify a small number of priority areas where skills are likely to be in high demand across the region and focus on attaining excellence in these areas.

Section 5.3.2.4 of this WSDSP sets out plans for transforming UPIK into an OPITO accredited regional centre of excellence for Level 3 Oil & Gas Technician training.

At Level 2 the WSDSP recommends that Uganda should develop a regional Centre of Excellence in Welding. The Demand Assessment demonstrates that there is a high demand for Level 2 qualified Welders (estimated to be over 1,200) in Uganda and a similarly high demand can reasonably be anticipated in neighbouring countries which have a nascent Oil & Gas industry. Pipeline welding is a highly specialised skill which attracts a significant wage premium for qualified and experienced workers. International demand for such skills is high. Welding is a skill which can be utilised across a number of economic sectors including agriculture, construction, mining, transportation, food processing etc.<sup>10</sup> A welder trained to international recognised standards is therefore highly employable even outside of the Oil & Gas industry.

Terms of Reference will be developed under the Skills Standards Support Programme for a specific competitive Call for Proposals to establish a Welding Centre of Excellence. The successful institution will be able to demonstrate how it can attain agreed international Standards for Welding and how it will work with other institutions to provide expertise and leadership across Uganda and supply Welding skills for the regional labour market.

#### **5.2.2.7 Improving the quality of trainers through industry attachment and secondment programmes.**

Improving the quality of trainers across Ugandan institutions is a key concern. Without high quality trainers who have a strong pedagogical understanding and an up-to-date knowledge of what it means to work in industry then Uganda is not going to achieve the objectives in the WSDSP. In many ways the issue of trainers is a more significant issue than deficiencies in facilities and equipment.

*It is said, for example, that over 50% of the gross national product of the U.S.A. is related to welding in one way or another whilst welding involves more sciences and variables than those involved in any other industrial process (Welding Information Center).*

Facilities and equipment can be purchased if funds are available but enhancing the stock of high quality Ugandan trainers requires a wide ranging capacity development programme.

The Skills Standards Support Programme will fund partnerships between international training providers and Ugandan training institutions. Under these partnership arrangements. Training providers will bring skilled trainers to Uganda to deliver courses and build the capacity of local institutions.

However, in order to supplement these efforts, the National Content Steering Committee will also oversee the development of specific efforts to improve the quality of Ugandan trainers through industry attachment and secondment programmes. Under these arrangements, will be discussed and finalised through the Oil & Gas Training Providers Forum, trainers from Ugandan institutions will be linked up with Oil & Gas employers and large construction firms (the precise employer will depend upon the occupational area of specialism of each individual trainer). Trainers will then undergo industry attachment and secondment programmes to enhance their understanding of the latest industry developments. They will also be exposed to international standard training provision so that they can develop their pedagogical skills as well as their communication and analytical skills.

In addition to providing industry attachments for trainers, the National Content Steering Committee will also oversee a targeted recruitment campaign. This campaign will seek to attract experienced industry workers to take up roles as trainers in Ugandan training institutions. In order to widen the pool of workers interested in becoming trainers the campaign will promote one and two year secondments as well as permanent full-time trainer positions.

The National Content Steering Committee will also initiate efforts to work in partnership with Voluntary Service Overseas (VSO) and similar organisations to attract experienced mid-career and late-career professionals to come to Uganda to build the capacity of trainers in priority occupational areas.

#### 5.2.2.8 Review progress against Level 2 training objectives and take additional action to expand provision if required.

The WSDSP has a ten year time frame (2015 to 2025). At the mid-way point of the Strategy, in 2019, a comprehensive review of progress should be carried out to assess the extent to which i.) the Level 2 workforce demand estimates have materialised in practice and ii.) the extent to which the Level 2 specific activities in the WSDSP have managed to meet this demand.

Following this review the WSDSP should be adapted to ensure that it is fit for purpose for the final 5 years of the strategy period.

#### 5.2.3 Implementation Timetable for addressing constraints at Qualifications Level 2 (Crafts & Trades)

The implementation timetable for the Qualifications Level 2 Activity Strand of the WSDSP is as follows:

**Table 14: Implementation timetable for Qualifications Level 2**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Agree Standards and Communicate Opportunities (already covered in Sections 3.1 and 3.3 of the WSDSP)	MEMD/DoP, MoESTS, UNBS & IOCs	July 2015
Expand institutional provision through partnerships with international training providers to deliver against agreed Standards through a Skills Standards Support Programme.	National Content Steering Committee, MEMD/DoP, Technical Assistance & Fund Management Agency.	1st August 2015- invitation issued 30th October 2015- contracts awarded and signed.
Expansion of activities related to the rapid assessment and provision of short training Courses within the labour market through the establishment of a Labour Market Assessment and Training Fund.	National Content Steering Committee, MEMD/DoP, Technical Assistance & Fund Management Agency.	1st September 2015- invitation issued 30th November 2015- contracts awarded and signed.
Strengthening linkages between training providers and employers through the Training Providers Forum and development of trainee matching services	National Content Steering Committee, MEMD/DoP, Training Providers Forum.	From January 2016 onwards.
Development of Apprenticeships training programme and incorporation within contractual requirements.	National Content Steering Committee, MoESTS & MEMD/DoP.	From September 2015 onwards



<b>Medium-Term (3-5 years)</b>		
Continue expanding institutional provision through partnerships with international training providers through future bidding rounds of the Skills Standards Support Programme.	National Content Steering Committee, MEMD/DoP, Technical Assistance & Fund Management Agency.	Ongoing from 2018.
Establish a Welding Centre of Excellence.	National Content Steering Committee, MEMD/DoP, Technical Assistance & Fund Management Agency.	September 2016.
Improving the quality of trainers through industry attachment and secondment programmes.	National Content Steering Committee, MEMD/DoP, Training Providers Forum, MOESTS.	September 2016.
<b>Long-Term (6-10 years)</b>		
Review progress against Level 2 training objectives and take additional action to expand provision if required.	National Content Steering Committee, MEMD/DoP.	January 2019

### 5.3 Activities to address constraints at Qualification Level 3 (Technicians)

#### 5.3.1 Background and issues regarding additional jobs at Qualifications Level 3 (Technicians).

The Demand Assessment estimated that approximately 4,800 additional jobs would be created at Qualification Level 3 over the next ten years, representing 17% of the total number of predicted additional jobs. Unlike at Qualifications Levels 1 and 2 the short-term peak for these roles is less pronounced, with a relatively constant ongoing demand for technician level jobs through to 2025.

Approximately 2,000 of these 4,800 additional Level 3 jobs are predicted to be created in Petroleum Sales where the Demand and Supply Assessment showed that there is no significant skills gap. For the purposes of the WSDSP therefore the relevant number of additional Level 3 jobs is considered to be 2,800.

Demand Assessment analysis shows that six occupational areas are each predicted to generate over 100 additional Level 3 jobs, namely:

- Instrumentation Technicians
- Electrical Technicians
- Production Technicians
- Mechanical Technicians
- Drilling Rig/Operator Technicians
- Logistics & Supply Chain Management

Together these six occupational areas are expected to account for 2,100 additional Level 3 jobs by 2025.

All of the jobs in these occupational areas require between at least 2 and 5 years of relevant experience. With the exception of Logistics & Supply Chain management

these Level 3 occupational areas involve skills which are very specific to the Oil & Gas industry. Given that Oil & Gas is a new industry in Uganda these skills are not currently available in the labour market. The process of ensuring that as many Ugandans as possible are able to gain the qualifications, skills and experience to take up these Level 3 roles therefore requires a medium and long-term strategy (in contrast with the rapid short-term actions required to meet demand for Level 1 and Level 2 roles).

Technician level training content and duration will be determined by the international Standards which the Training Standards Sub-Committees agrees to adopt in Uganda. It is important to bear in mind that the courses which will need to be developed to meet these Standards may take a significant duration to deliver (further details are provided below).

The Uganda Petroleum Institute at Kigumba (UPIK) has the potential to produce high quality and industry-relevant graduates but, according to its current plans, it will only produce around 50% of the technicians required by the industry. Plans therefore need to be put in place to expand the quantity of Level 3 provision whilst ensuring that it is of a high quality, to international standards and industry relevant.

#### 5.3.2 Specific Activities to address constraints at Qualifications Level 3 (Technicians)

The relevant objective in the WSDSP is Objective 6 which is to:

- Ensure that 2,000 Ugandans secure an industry relevant and recognised Level 3 qualification by 2025.

Specific activities to achieve this objective are set out below.

### 5.3.2.1 Agree Standards and communicate opportunities

These activities are already set out in Section 4.2 and 4.3 of the WSDSP. The Training Standards Sub-Committee will specify which Standards are acceptable to the Oil & Gas industry in Uganda at Level 3 for the following occupational areas:

Chemical & Process Technician	Production Technician	Petroleum Technician
Instrumentation Technician	Maintenance Technician	Logistics & Supply Chain Management
Control Centre Operations	Mechanical Technician	Vehicle Mechanics
Electrical Technician	Drilling Technician	

Then there will be a series of communications activities (including a national media campaign and a series of Skills Roadshows involving employers, training providers and local employer associations etc.) to raise awareness of the jobs which will be available and the training courses which individuals need to take up in order to be eligible for these jobs.

### 5.3.2.2 Expanding institutional provision of Logistics & Supply Chain Management Level 3 training through partnerships with international training providers through a Skills Standards Support Programme

Section 4.2 of the WSDSP provides details of the Oil & Gas Skills Standards Support Programme which will be launched to stimulate a market for high quality, industry relevant training. International training providers with experience in delivering the agreed Standards will be encouraged to enter into partnership with Ugandan training providers. These partnerships will provide support to Ugandan institutions so that they are able to co-deliver training which meets the Standards required by the industry.

For Level 3 training the only occupational area eligible for funding under the Skills Standards Support Programme is Logistics & Supply Chain Management. It is anticipated that 300 Ugandans will gain relevant level 3 qualifications in Logistics & Supply Chain Management through this support. The other technician level job roles are either specialist Oil & Gas roles which are being delivered by UPIK or electrical and mechanical roles which will be delivered by UTC Kichwamba. A separate support package (outside of the scope of the competitive Skills Standards Support Programme) will be provided to UPIK and UTC Kichwamba to enable them to meet the agreed Standards in these Level 3 areas (see 5.3.2.4 and 5.3.2.7 for further details).

### 5.3.2.3 Officially adopt 2 phase approach to technician level training combining classroom based learning and on-the-job training.

Worldwide best practice suggests that Oil & Gas technician level training is most effective if it is delivered in 2 phases – a classroom/workshop phase followed and supported by an on-the-job training (OJT) phase at the work site. Chevron, for example, employs this model in its international training operations in Indonesia, Thailand, Cambodia, China, Angola, etc.

Globally IOCs normally source graduates from the best local vocational institutions, and workers from the labour market pool, who have solid foundations in mechanics, electrics, etc. and put them through 12 – 18 month, classroom/workshop training programmes. These programmes introduce them to company and oil field specific processes and equipment. Structured OJT at the work site provides trainees with the additional hands-on work experience that they need to reach full certification and to eventually work on their own.

In addition to agreeing Standards, the Training Standards Sub-Committee and MoESTS should also officially adopt this 2 phase approach to technician level training in Uganda. This means that any institution wishing to deliver Level 3 Technician training for the Oil & Gas industry should adopt this approach, starting with the Uganda Petroleum Institute at Kigumba (UPIK).

It is important to bear in mind that the duration of courses and qualifications designed to meet the agreed Level 3 Standards may have a considerable duration, especially considering both the classroom based and on-the-job element.

Table 15 below shows the standards that have been set for four technician level occupations in petroleum operations & maintenance in the UK. Phase 1 of this technician training lasts for 21 months and is often carried out by accredited Further Education Colleges. At the end of the programme electrical, instrumentation, and mechanical, maintenance trainees are awarded a NC/HNC and S/NVQ Level 2 Certification whilst process operators are awarded a Level 1 S/NVQ. Electrical, instrumentation and mechanical maintenance technicians and process operators must then work for another 2 years to complete their Phase 2, On-the-Job Training and obtain a Level 3 S/NVQ. Once they have achieved a Level 3 S/NVQ, they are deemed competent to work on their own.



**Table 15: Sample Occupations for Qualification Level 3 – Technician**

Job Category	Certification	Course Duration	OJT, Career Development, further training and assessment
Electrical Technician	OPITO Oil & Gas Technician training scheme NC/HNC/S/ NVQ Level 2	21 months	2 years to gain Level 3 S/ NVQ
Instrumentation Technician	OPITIO Oil & Gas Technician training scheme NC/HNC/S/ NVQ Level 2	21 months	2 years to gain Level 3 S/ NVQ
Process Technician	OPITIO Oil & Gas Technician training scheme NC/HNC/S/ NVQ Level 1	21 months	2 years to gain Level 2/3 S/NVQ

Taking the information in this table as a comparable international benchmark it would take Ugandan “O” level or UTC graduates approximately 4 years to obtain a S/NVQ Level 3 grade and be certified as competent to work on their own in an Oil & Gas production process or refinery facility in Uganda. If they were to begin training today, they would complete the entire technician programme (classroom/workshop + OJT) at the end of 2017 in time for production start-up. Phase 1 & Phase 2 technician level training in Uganda may therefore be 30 to 40 months in duration depending on the quality and capacity of entry level trainees.

#### **5.3.2.4 UPIK should be supported to implement its’ 2014-19 Institutional Development Plan provided that it stays on track against a number of Key Performance Indicators (KPIs)**

UPIK has a five year Institutional Development Plan (IDP) which covers the period from 2014 to 2019. This IDP sets out a clear set of activities and objectives across four specific areas namely ‘Curriculum’, ‘Programme Delivery and Instruction’, ‘Facilities and Training Equipment’ and ‘Organisation’. These activities are summarised below:

##### **UPIK Curriculum – Programmes and Courses**

- It is recommended that UPIK commences with programmes in Upstream Operations, Instrumentation, Mechanical and Electrical Maintenance. A Downstream Operations programme should begin a year later.
- UPIK should link with an established and respected international institution for these programmes and adapt the content to meet Ugandan industry needs, while maintaining internationally recognized certification.

##### **UPIK Programme Delivery and Instruction**

- To overcome the challenge of inexperienced Ugandan instructors, the international cooperating institute should provide one lead instructor for each programme area for a period of three years. The international lead instructor will be responsible for the UPIK national instructor training.

##### **UPIK Facilities and Training Equipment**

- The programmes and international cooperating institution should be selected before major UPIK construction begins. The facilities and equipment design should be purpose built to support the skill development needs of UPIK graduates.

#### **UPIK Organization**

- UPIK Governance and Autonomy: A governance structure for UPIK that permits a level of autonomy must be developed. It is recommended that this be through a Governing Council, Board of Directors, or Trustees that contains significant industry representation.
- UPIK Organization: The UPIK organization should be divided on academic and administrative lines.
- UPIK Financing: A sustainable funding formula must be found for UPIK that allows it to maintain current curriculum, instruction, and equipment. The formula should be a combination of a government grant, student tuition, and an industry contribution.
- UPIK Mission and Vision: The Mission and Vision generated for UPIK should be reviewed after the Governance structure is finalized. The Mission should provide a more precise focus and direction for UPIK.

UPIK’s Institutional Development Plan is fit for purpose and should be implemented so that UPIK becomes the main supplier of Level 3 Technicians to the Oil & Gas industry in Uganda. The Demand Assessment indicates that approximately 2,000 technician level workers will be needed in petroleum engineering and production, refinery, and pipeline operations & maintenance between 2015 and 2025.

If UPIK’s current plans are implemented then they will be able to supply approximately 1,080 technicians by 2025. It is recommended that UPIK focuses on quality and aims to deliver 1,080 technicians trained to international standards as per their plans. The remaining technician level workers will be supplied through a combination of UTC Kichwamba (for electrical and mechanical technician roles) and overseas provision arranged through IOCs.

Financial assistance should be provided to UPIK through a dedicated Oil & Gas Technician Training Fund. Sources of financing to ensure that this fund is sufficient and sustainable are set out in Section 5 of the WSDSP. These funds will be provided to UPIK under the direction of the National Content Steering Committee. Funds must be used solely for the purpose of enabling UPIK to implement its existing Institutional Development Plan for 2014-2019.

The release of funds to UPIK from the Oil & Gas Technician Training Fund will be dependent on UPIK achieving results against a set of Key Performance Indicators (KPIs) related to its Institutional Development Plan. Progress against these KPIs will be monitored and reported on a monthly basis. Failure to achieve key milestones will result in a suspension of funding from the Oil & Gas Technician Training Fund. If there is a significant delay in achieving KPIs or if, in the opinion of the National Content Steering Committee, UPIK is going to fail to achieve its KPIs then the WSDSP should be revised to prioritise other means of training Level 3 technicians. Primarily this could involve an expansion of Activity 4.3.2.8 'IOCs to partner with international training providers to deliver high quality 2 phase technician level training to supplement UPIK's supply of trained technicians'.

Examples of KPIs related to UPIK's Institutional Development Plan which can be used to determine fund releases from the Oil & Gas Technician Training Fund include:

- A governance structure for UPIK is established which permits a level of autonomy through a Governing Council or Board of Directors which contains significant industry representation.
- IOCs and their subcontractors should be adequately represented on UPIK's Governing Council to ensure a strong working relationship between UPIK and the IOCs.
- UPIK links up with an established and respected international Oil & Gas training institution which is able to assist UPIK to gain internationally recognised certification for its technician level training as determined by the Training Standards Sub-Committee e.g. OPITO Global Technical Standards. Partnership with an international training institution which is not able to train to these internationally recognised Standards will class as a significant failure to achieve this KPI.
- To overcome the challenge of inexperienced Ugandan instructors, the international cooperating institution should provide one lead instructor for each programme area for a period of three years.
- Facilities and equipment design should be purpose built and cost effective in order to support the skills development needs of UPIK graduates.
- UPIK builds working relationships with the three IOCs to enable successful delivery of 2-phase technician training.

The quality of trainers is absolutely critical to the success of UPIK which is why it should develop a manpower plan setting out how it will nationalise its training force over the ten year period to 2025. Over the medium to long term UPIK should source instructors from their own graduates, who have experience working in O & M, but prefer to teach rather than continue working in the field. Chevron's training centre in Thailand is now, for example, staffed by its own Thai graduates, who once worked in its offshore operations. Former workers make excellent instructors because of their extensive hands-on, work experience.

### **5.3.2.5 UPIK to become an OPITO registered training provider as a key element in its strategy to become a regional Centre of Oil & Gas Excellence.**

Given the current lack of internationally recognised Oil & Gas Technician level training across the Central and East Africa region, UPIK has a window of opportunity to play a regionally significant role which will place Uganda as a regional leader in Oil & Gas skills. This window will not last for long so it is vitally important that action is taken now to implement UPIK's Institutional Development Plan and cement it as a recognised provider of skills for countries such as Kenya, Tanzania, South Sudan, the Democratic Republic of Congo and Mozambique.

The key to unlocking UPIK's potential is to ensure that it has internationally recognised status as a provider of high quality and relevant technician level skills for the Oil & Gas industry. The simplest and most effective way of achieving this status is for UPIK to become an officially accredited and certified provider of international Oil & Gas training standards. Looking at UPIK's current status and its vision for the future, OPITO's Global Technical Standards appear to be the most relevant and effective set of Standards. These Standards have been recently designed by OPITO in consultation with some of the world's largest Oil & Gas companies. If UPIK gains recognition as a provider of OPITO training then this sends an immediate signal to the Oil & Gas industry that it is a credible and high quality institution.

The Oil & Gas Technician Training Fund should therefore be used to support UPIK to gain OPITO recognition. This process can start immediately through an OPITO conducted baseline assessment to identify gaps which will need to be filled in order to meet the Standards required. UPIK's international institutional partner will then have a key role to play in working with UPIK to ensure that the Standards are met.

Once OPITO status has been achieved UPIK will be in a very strong position to market itself as a Regional Centre of Excellence for Oil & Gas training at technician level, providing training services across the region.

### **5.3.2.6 Formalise links between UPIK and IOCs to increase industry engagement and enhance the quality and relevance of training.**

One of the most critical elements in determining UPIK's success in effectively meeting the demand for Level 3 technician roles in the Oil & Gas sector will be the strength of its relationships with the IOCs operating in Uganda.

It is recommended that the relationship between the IOCs and UPIK is formalised in the form of a Memorandum of Understanding which sets out how IOCs will source graduates from UPIK and support it with funding, equipment, and guest instructors, etc., provided UPIK successfully achieves the KPIs within its Institutional Development Plan.

IOCs should neither recruit UPIK graduates nor support the Institute, if the KPIs in the IDP are not met and the capacity of UPIK to produce quality graduates to international standards is jeopardized.

### **5.3.2.7 Provide support to UTC Kichwamba to enable the delivery of Level 3 electrical and mechanical engineering training which meets industry standards.**

In order to supplement UPIK provision and spread the risk to Uganda of relying on a single institution to provide Technician level training, support should also be provided to UTC Kichwamba. UTC Kichwamba already delivers Electrical and Mechanical Engineering courses and its facilities and equipment should be upgraded to enable it to deliver qualifications which meet the international Level 3 standards in these occupational areas agreed by the Training Standards Sub-Committee. This support to UTC Kichwamba will be provided either by the international training institution contracted to partner with UPIK or another international training provider selected through a competitive process. Once UPIK's international training partner has been selected then the National Content Steering Committee will make a decision as to whether this partner is also well placed to provide support to UTC Kichwamba or whether another institution should be selected.

Once UTC Kichwamba's international partner has been agreed, financial assistance should be provided through the dedicated Oil & Gas Technician Training Fund. Sources of financing to ensure that this fund is sufficient and sustainable are set out in Section 5 of the WSDSP. These funds will be provided to UTC Kichwamba under the direction of the National Content Steering Committee. It is anticipated that 250 Ugandans will gain relevant level 3 qualifications in Electrical and Mechanical Engineering through this support.

### **5.3.2.8 IOCs to partner with international training providers to deliver high quality 2 phase technician level training to supplement UPIK's supply of trained technicians.**

In order to supplement the supply of trained Level 3 technicians produced by UPIK and UTC Kichwamba, IOCs and their subcontractors should also look to partner with international training providers to train Uganda Oil & Gas Technicians. It is anticipated that 400 Ugandans will receive high quality, industry relevant Level 3 qualifications through this route by 2025.

It is envisioned that each IOC will develop its own on-the-job, technician level training programme in partnership with international training providers with whom they are already familiar (perhaps based in their country of origin). These OJT programmes will continue to introduce trainees to company and oil field specific processes and equipment. They will also provide trainees with practical, hands-on experience at the work site and bring them up to full international certification.

### **5.3.2.9 Embed nationalisation plans for Level 3 workers within contractual requirements.**

IOCs should develop manpower plans, outlining the medium and long-term nationalization of foreign workers at technician level.

The development of manpower plans at technician level should be based on worldwide best practice. This suggests that inexperienced, O level or UTC graduates must complete a 30 - 40 month, classroom/workshop + OJT training programme to bring them up to international standard. They must also then gain 3 to 5 additional years' work experience before their can begin replacing expatriates and third-country nationals.

The soonest a graduate could replace a foreign worker at technician level would then be 5 years (2 year OJT followed by 3 years work experience.)

### **5.3.2.10 Expand student access to technician level Oil & Gas training over the long-term.**

Student access to technician level Oil & Gas training programmes should be expanded as a long term goal over the next 10 to 15 years. UPIK currently only recruits O-level graduates for its programmes. It does not accept Uganda Technical College (UTC) graduates because of quality issues and thus denies access to students moving up through the BTVET system. The WSDSP recommends that UPIK expand access by not only recruiting O level graduates but at some future date (within the next 10 years) UTC graduates as well. It makes sense to source technicians from vocational students. A number of employers have, for example, complained that O-Level UPIK graduates expect to work in supervisory and management positions and "do not want to get their hands dirty" as technician level employees.

There are currently however serious quality issues with UTC graduates. This problem is not unique to Uganda. Because of the poor quality of vocational school graduates in Tunisia for example IOCs there have sourced university graduates for technician level training. Chevron in Cambodia has also refused to recruit TVET graduates there because of poor quality and sources trainees for technician level programmes from university graduates. The Ugandan Ministry of Education and Sports therefore needs to work towards a long-term goal of improving the quality of its UTC graduates so that they might someday feed into UPIK and IOC technician level training programmes.

### **5.3.2.11 Review UPIK support against KPI performance. Provide support to develop follow-on 2020-2025 Institutional Development Plan if appropriate.**

The National Content Steering Committee will lead a formal review of UPIK's progress against the KPIs in its 2014-2019 Institutional Development Plan. Based upon the findings of this review a decision will be made as to whether to extend the financial support within the Oil & Gas Technician Training Fund to support the next phase of UPIK's Institutional Development Plan from 2020 onwards.

### 5.3.3 Implementation Timetable for addressing constraints at Qualifications Level 3 (Technicians)

The implementation timetable for the Qualifications Level 3 Activity Strand of the WSDSP is as follows:

**Table 16: Implementation Timetable for Qualifications Level 3**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Agree Standards and Communicate Opportunities (already covered in Sections 4.2 and 4.3 of the WSDSP)	MEMD/DoP, MoESTS, UNBS & IOCs	July 2015
Expand institutional provision of Logistics & Supply Chain Management Level 3 training through partnerships with international training providers through a Skills Standards Support Programme.	National Content Steering Committee, MEMD/DoP, Technical Assistance & Fund Management Agency.	1st August 2015- invitation issued 31st October 2015- contracts awarded and signed.
Officially adopt 2 phase approach to technician level training combining classroom based learning and on-the-job training.	Training Standards Sub-Committee, MEMD/DoP, MoESTS, IOCs.	September 2015.
Support UPIK to implement its 2014-2019 Institutional Development Plan provided that it stays on track against a number of Key Performance Indicators (KPIs).	National Steering Committee, MoESTS, MEMD/DoP.	Ongoing from July 2015.
UPIK to become an OPITO registered training provider as a key element of its strategy to become a regional Centre of Oil & Gas Excellence.	National Steering Committee, MoESTS, MEMD/DoP, UPIK, OPITO.	February 2016 onwards.
Formalise links between UPIK and IOCs to increase industry engagement and enhance the quality and relevance of training	UPIK, IOCs	Ongoing from February 2016
Provide support to UTC Kichwamba to enable the delivery of Level 3 electrical and mechanical engineering training which meets industry standards	National Steering Committee, MEMD/DoP, MoESTS	Ongoing from July 2015
<b>Medium-Term (3-5 years) &amp; Long-Term (6-10 years)</b>		
IOCs to partner with international training providers to deliver high quality 2 phase technician level training to supplement UPIK's supply of trained technicians.	National Steering Committee, IOCs, MEMD/DoP	2017 onwards
Review UPIK support against KPI performance. Provide support to develop follow-on 2020-2025 Institutional Development Plan if appropriate.	National Steering Committee, MEMD/DoP, MoESTS	2019

Embed nationalisation plans for Level 3 workers within contractual requirements	National Steering Committee, MEMD/DoP	2017 onwards
Expand student access to technician level Oil & Gas training over the long-term	National Steering Committee, MoESTS, MEMD/DoP	2017 onwards

## 5.4 Activities to address constraints at Qualification Level 4 (Engineers and Managers)

### 5.4.1 Background and issues regarding additional jobs at Qualifications Level 4 (Engineers and Managers).

The Demand Assessment estimated that approximately 1,800 additional jobs would be created at Qualification Level 4 over the next ten years, representing 6% of the total number of predicted additional jobs. There is a short-term peak for Engineers with Civil and Structural Engineering experience during the construction phase followed by a relatively constant ongoing demand for Engineer and Managerial level jobs across other occupational areas through to 2025.

Demand Assessment analysis shows that seven occupational areas are each predicted to generate over 100 additional Level 4 jobs, namely:

- Civil / Structural Engineering
- Control Centre Operations
- Production Engineering
- Geological Engineering
- Mechanical Engineering
- Maintenance Engineering
- Petroleum Engineering

Together these seven occupational areas are expected to account for just over 1,000 additional Level 4 jobs by 2025.

62% of the additional Level 4 jobs require between 5 and 10 years of industry relevant experience while 32% of the additional jobs require between 2 and 5 years of experience. Some of the relevant Level 4 occupational areas involve highly specialised skills relevant to the Oil & Gas industry. Given that Oil & Gas is a new industry in Uganda these skills are not currently available in the labour market. The process of ensuring that as many Ugandans as possible are able to gain the qualifications, skills and considerable experience to take up these Level 4 roles therefore requires a long-term strategy (in contrast with the rapid short-term actions required to meet demand for Level 1 and Level 2 roles).

IOCs through their existing training plans have made provision for appropriate degree level training for some of their staff whilst universities in Uganda are producing sufficient numbers of graduates in disciplines such as civil engineering, mechanical and maintenance engineering to meet demand.

This finding should be treated with caution however due to a combination of factors including: the rapid peak in demand (within the next three years) for engineers with civil and structural experience; the need for graduates to gain between 5 and 10 years of relevant experience for many of the additional Level 4 positions; and concerns about the quality and relevance of some of the degree programmes currently offered. It must also be borne in mind that competencies gained through BSc qualifications in subjects such as Civil Engineering, Electrical Engineering and Mechanical Engineering have a far wider scope of demand in the Ugandan labour market than just the prioritised Oil and Gas sectors. As a result many of these graduates will be in demand from other industries thus reducing the number available to work within the sectors prioritised within the WSDSP.

Aside from their civil, mechanical and electrical engineering provision, universities in Uganda are not currently able to supply the number of petroleum specific engineers (e.g. control centre operations, geological engineers, petroleum engineers and chemical engineers) needed by the Oil & Gas Industry. These are all specialist occupational areas where provision either does not currently exist or is not considered of sufficient relevance to the needs of employers. Approximately 570 out of the 1,800 additional Level 4 job roles estimated in the Demand Assessment will require qualifications in petroleum specific disciplines.

### 5.4.2 Specific Activities to address constraints at Qualifications Level 4 (Engineers and Managers)

The relevant objective in the WSDSP is Objective 7 which is to:

- Ensure that 1,000 Ugandans secure an industry relevant and recognised Level 4 qualification by 2025.

Specific activities to achieve this objective are set out below.



#### 5.4.2.1 Agree Standards and communicate opportunities.

These activities are already set out in Section 3.2 and 3.3 of the WSDSP. The Training Standards Sub-Committee will specify which Standards are acceptable to the Oil & Gas industry in Uganda at Level 4 for the following occupational areas:

Chemical & Process Engineering	Electrical Engineering	Maintenance Engineering
Civil / Structural Engineering	Mechanical Engineering	Petroleum Engineering
Instrumentation Engineering	Geological Engineering	Drilling Engineering
Control Centre Operations	Health, Safety & Environment	Well Engineering

Then there will be a series of communications activities (including a national media campaign and a series of Skills Roadshows involving employers, training providers and local employer associations etc.) to raise awareness of the jobs which will be available and the training courses which individuals need to take up in order to be eligible for these jobs.

#### 5.4.2.2 Expanding institutional provision through partnerships with international universities to deliver against agreed Standards through a Skills Standards Support Programme for Level 4 provision.

Section 4.2 of the WSDSP provides details of the Oil & Gas Skills Standards Support Programme. This Programme will be launched to stimulate a market for high quality, industry relevant training. International training providers with experience in delivering the agreed Standards will be encouraged to enter into partnership with Ugandan training providers. These partnerships will provide support to Ugandan institutions so that they are able to co-deliver training which meets the Standards required by the industry.

For Level 4 provision this will involve collating a list of approved and recommended international universities from the IOCs operating in Uganda. The universities on this list will all have credibility within the international Oil & Gas industry and can be trusted to develop high quality industry relevant courses. These universities will then be approached and invited to partner with Ugandan universities (both public and private). The Training Standards Sub-Committee will advertise the Skills Standards Support Programme internationally through industry bodies and IOCs to ensure that universities are aware of the opportunities in Uganda. There will also be briefing sessions for interested Ugandan universities where they will be given information as to how to make contact and discuss partnering with relevant international training providers.

The Skills Standards Support Programme will have tightly defined Terms of Reference (ToRs) specifying the Training Standards, Occupational Areas and Qualifications Levels which are being prioritised. For Level 4 provision the ToRs will cover all Occupational Areas set out in section 5.4.2.1.

Funding under the Skills Standards Support Programme can be used for investment in systems, management and organisational processes, trainers, facilities and equipment as well as to cover the direct cost of training.

Applications for Level 4 provision under the Skills Standards Support Programme will be assessed through a process defined by the National Content Steering Committee and run by the Technical Assistance and Fund Management Agency with the close involvement of the

National Council for Higher Education (NCHE). It is anticipated that 900 Ugandans will receive high quality industry relevant Level 4 qualifications through these activities.

#### 5.4.2.3 Establish a Petroleum Centre of Excellence within one Ugandan university.

MoESTS should bring university programmes, targeting the Oil & Gas sector, up to internationally recognized standards through the establishment of one university Centre of Excellence in petroleum studies.

The MoESTS should adopt a modified version of the twinning model that will be used to build capacity in UPIK. A local university department would be partnered with a similar department in an overseas institution. The overseas department would introduce its own courses and initially teach the programme. International instructors would build the capacity of national instructors to replace them. The programme would also provide Ugandan students with opportunities to study for part of their course in the host-country institution. IOCs would provide financial support including workshop facilities and equipment and internship opportunities for both lecturers and students.

The university to become the Centre of Excellence should be selected through a competitive application process against specified criteria.

A continuous professional development training programme should also be established for the national lecturers including secondments to ensure that their skills and knowledge continue to meet with industry requirements, further details of this activity are set out in 5.4.2.5.

#### 5.4.2.4 IOCs to sponsor University Chairs in Oil & Gas related subject areas.

In addition to a specific Oil and Gas Centre of Excellence, IOCs should also be asked to sponsor one or more University Chair in a field related to Oil & Gas (such as Civil/ Structural Engineering, Mechanical Engineering or Electrical Engineering).



The purpose of these University Chairs is to strengthen research and enhance the knowledge base within related engineering disciplines in Uganda as to the specific requirements of the Oil & Gas industry in relation to these disciplines. This will help to strengthen provision in related Engineering disciplines and ensure that training is relevant to industry needs.

#### **5.4.2.5 Improving the quality of university tutors and lecturers through industry attachment and secondment programmes.**

Improving the quality of trainers across Ugandan universities is a key concern. Without high quality lecturers and tutors who have a strong pedagogical understanding and an up-to-date knowledge of what it means to work in industry then Uganda is not going to achieve the objectives in the WSDSP.

The Skills Standards Support Programme will fund partnerships between international universities and Ugandan universities. Under these partnership arrangements Training providers will bring skilled lecturers and tutors to Uganda to deliver courses and build the capacity of local universities.

However, in order to supplement these efforts, the National Content Steering Committee will also oversee the development of specific efforts to improve the quality of Ugandan lecturers through industry attachment and secondment programmes. Under these arrangements, will be discussed and finalised through the Oil & Gas Training Providers Forum, lecturers from Ugandan universities will be linked up with Oil & Gas employers (the precise employer will depend upon the occupational area of specialism of each individual trainer). Lecturers will then undergo industry attachment and secondment programmes to enhance their understanding of the latest industry developments. They will also be exposed to international standard training provision so that they can develop their pedagogical skills as well as their communications and analytical skills.

#### **5.4.2.6 Provision of scholarships by IOCs for Ugandans to study at international universities.**

Given the start-up nature of current petroleum-related degree programmes in Uganda IOCs and their subcontractors should continue to provide scholarships to enable qualified Ugandans to study relevant Level 4 qualifications at overseas universities. The following actions should be implemented by IOCs:

- Recruit Uganda graduates already studying in overseas petroleum studies programmes;
- Establish or rationalize already existing IOC scholarship programmes sending Ugandans abroad for continuing studies;

- Establish internationally competitive salaries to entice and retain returning overseas graduates;
- Develop extended training programmes including long term secondments to company facilities and structured mentoring programs to provide graduates with the hands-on, practical experience;
- Develop clear career paths for overseas graduates demonstrating how they might replace expatriate managers in 10 to 15 years; career paths should also provide graduates with the possibility of achieving permanent, international status with opportunities to work in overseas IOC locations outside Uganda.

It is anticipated that 100 Ugandans will gain high quality, industry relevant Level 4 qualifications through overseas scholarships by 2025.

IOCs and their subcontracts should try to recruit Ugandans, who are already studying overseas. Total's recruitment efforts in Houston demonstrate that this can however be difficult with graduates preferring to remain overseas and not return to Uganda.

IOC annual training plans indicate that all three IOCs have already initiated overseas scholarship programmes. These scholarship programmes need to be rationalised in line with the international Standards agreed by the Training Standards Sub-Committee.

#### **5.4.2.7 Oil & Gas employers to develop career paths for Ugandan graduates including the provision of international secondments and immersion programmes.**

IOCs and subcontractors should build capacity in recently hired, university graduates (both overseas and local graduates) through secondment programmes and the establishment of clearly defined career paths.

Means of developing career paths for Ugandan graduates include developing induction programmes, introducing returning graduates to their companies by rotating them through various company divisions and seconding them to company operations in Uganda or elsewhere in Africa. Long term structured mentoring programmes, provided by their supervisors, also need to be devised and implemented.

It is important that the Oil & Gas companies establish clear career paths for overseas graduates to replace senior foreign management in 10 to 15 years. Experienced Ugandan engineers should ultimately be able to earn "expatriate," permanent employee status with all associated benefits and have the opportunity to work in the host country or be reassigned overseas.

### 5.4.3 Implementation Timetable for addressing constraints at Qualifications Level 4 (Engineers & Managers).

The implementation timetable for the Qualifications Level 4 Activity Strand of the WSDSP is as follows:

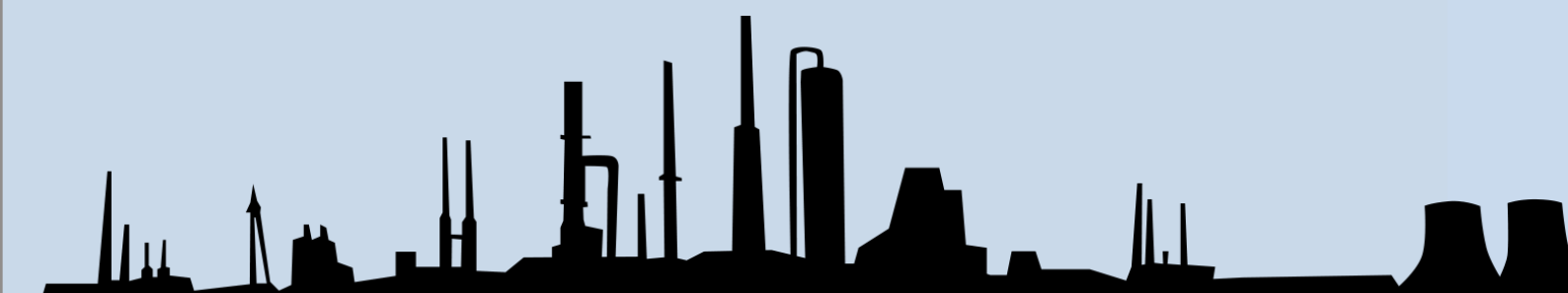
**Table 17: Implementation Timetable for Qualifications Level 4.**

Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Agree Standards and Communicate Opportunities (already covered in Sections 4.2 and 4.3 of the WSDSP)	MEMD/DoP, MoESTS, UNBS, NCHE & IOCs.	July 2015
Expanding institutional provision through partnerships with international universities to deliver against agreed Standards through a Skills Standards Support Programme for Level 4 provision.	National Content Steering Committee, NCHE, MEMD/DoP, Technical Assistance & Fund Management Agency.	1st October 2015- invitation issued 31st January 2016- contracts awarded and signed.
Establishing a Petroleum Centre of Excellence within one Ugandan university.	National Content Steering Committee, NCHE, MEMD/DoP, Technical Assistance & Fund Management Agency	September 2015.
Provision of scholarships by IOCs for Ugandans to study at international universities.	National Content Steering Committee, MEMD/DoP, IOCs.	July 2015 onwards.
<b>Medium-Term (3-5 years) &amp; Long-Term (6-10 years)</b>		
IOCs to sponsor University Chairs in Oil & Gas related subject areas.	IOCs, universities, MoESTS.	2017 onwards
Improving the quality of university tutors and lecturers through industry attachment and secondment programmes.	National Content Steering Committee, Training Providers Forum.	2017 onwards.
Oil & Gas employers to develop career paths for Ugandan graduates including the provision of international secondments and immersion programmes	IOCs	2017 onwards

# SECTION 6

---

## Financing the WSDSP



## 6.1 Estimated Cost of WSDSP Activities

The activities set out in Sections 4 and 5 of the WSDSP are all designed to maximise the quantity and quality of employment opportunities for Ugandans in Oil & Gas and related sectors. These activities require funding. An estimate of the funding required for the period 2015-2025 is set out in Table 18 below. **Annex Two** provides further details of the cost profile for each activity over the 10 year implementation period

**Table 18: WSDSP Activities and Approximate Costs**

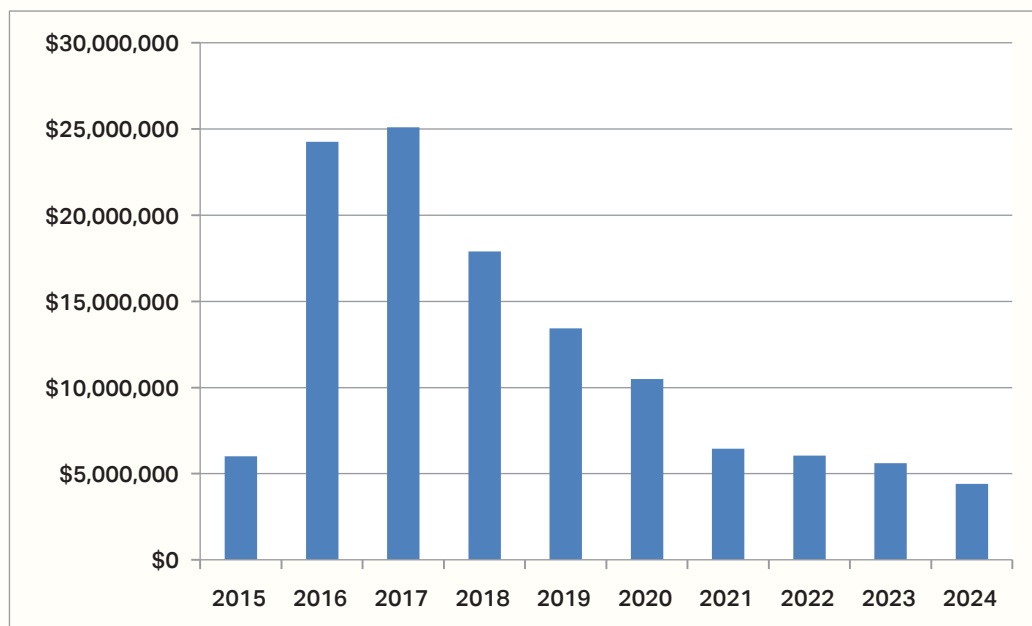
Activity Area	Estimated Total Approximate Cost 2015 to 2025
<b>INSTITUTIONAL ARCHITECTURE AND COORDINATION MECHANISMS</b>	
Constituting and operating the National Content Steering Committee and staffing a dedicated WSDSP Implementation Unit within MEMD/DoP.	\$3,500,000 UGX 10,500,000,000
Contract and performance manage Technical Assistance and Fund Management Agency, initially from 2015 to 2019 with a possibility of extension in future years up to 2025.	\$6,000,000 UGX 18,000,000,000
<b>SUB-TOTAL</b>	<b>\$9,500,000 UGX 28,500,000,000</b>
<b>ACCREDITATION AND STANDARDS</b>	
Contract International Standard setting and accreditation bodies to assess and certify institutions to verify that they meet international standards agreed by Training Standards Sub-Committee.	\$2,500,000 UGX 7,500,000,000
Periodically review and update approved list of International Standards and lead efforts to introduce a common set of standards across East Africa.	\$400,000 UGX 1,200,000,000
<b>SUB-TOTAL</b>	<b>\$2,900,000 UGX 8,700,000,000</b>
<b>COMMUNICATIONS AND INFORMATION SHARING</b>	
Implement Oil & Gas Skills Communications Strategy and related activities including roadshows, an international promotion campaign and a Ugandan media campaign.	\$1,500,000 UGX 4,500,000,000
Establish and operate an Oil & Gas Training Providers Forum	\$250,000 UGX 750,000,000
Create and operate a National Talent Register through tendering and contracting a third party provider.	\$500,000 UGX 1,500,000,000
<b>SUB-TOTAL</b>	<b>\$2,250,000 UGX 6,750,000,000</b>
<b>ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 1 (BASIC SKILLS)</b>	
Health & Safety Certification Programme (7,000 Ugandans certified at a unit cost of \$200).	\$1,400,000 UGX 4,200,000,000
English Language Assessment Programme (3,000 Ugandans assessed at a unit cost of \$150).	\$450,000 UGX 1,350,000,000
Traineeship Training Programme (2,500 Ugandans trained at a unit cost of \$1,260).	\$3,150,000 UGX 9,450,000,000
<b>SUB-TOTAL</b>	<b>\$5,000,000 UGX 15,000,000,000</b>

<b>ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 2 (CRAFTS &amp; TRADES)</b>	
Labour Market Assessment and Training Programme (4,000 Ugandans certified at a unit cost of \$1,500)	<b>\$6,000,000</b> UGX 18,000,000,000
Skills Support Programme at Level 2, including Welding Centre of Excellence (5,000 Ugandans achieve Level 2 qualifications at a unit cost of \$2,000 + additional \$5 million allocated to purchase of new equipment and upgrading of facilities)	<b>\$15,000,000</b> UGX 45,000,000,000
Development of Apprenticeships training programme and incorporation within contractual requirements (1,000 Ugandans gain Level 2 Apprentice-ship qualifications at a unit cost of \$5,000).	<b>\$5,000,000</b> UGX 15,000,000,000
Improve the quality of trainers through industry attachment and secondment programmes (100 trainers benefit at a unit cost of \$5,000).	<b>\$500,000</b> UGX 1,500,000,000
<b>SUB-TOTAL</b>	<b>\$26,500,000</b> UGX 79,500,000,000
<b>ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 3 (TECHNICIANS)</b>	
Skills Support Programme at Level 3 focusing on Logistics & Supply Chain Management (300 Ugandans achieve Level 3 qualifications at a unit cost of \$2,500).	<b>\$750,000</b> UGX 2,250,000,000
Support UPIK to implement its Institutional Development Plan through Oil & Gas Technician Training Fund (1,080 Ugandans gain Level 3 qualifications at a unit cost of \$6,000 + additional \$25 million allocated to purchase of new equipment and development of facilities).	<b>\$31,480,000</b> UGX 94,440,000,000
Support UTC Kichwamba to deliver mechanical and electrical engineering Level 3 training through Oil & Gas Technician Training Fund (250 Ugandans gain Level 3 qualifications at a unit cost of \$5,000 + additional \$2 million allocated to purchase of new equipment and upgrading of facilities).	<b>\$3,250,000</b> UGX 9,750,000,000
IOCs to partner with international training providers to deliver high quality 2 phase technician training (400 Ugandans gain Level 3 qualifications at a unit cost of \$30,000).	<b>\$12,000,000</b> UGX 36,000,000,000
<b>SUB-TOTAL</b>	<b>\$47,480,000</b> UGX 142,440,000,000
<b>ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 4 (ENGINEERS &amp; MANAGERS)</b>	
Skills Support Programme at Level 4 including Petroleum Centre of Excellence (900 Ugandans achieve Level 4 qualifications at a unit cost of \$11,000 + additional \$10 million allocated to purchase of equipment and upgrading of facilities).	<b>\$19,900,000</b> UGX 59,700,000,000
IOCs to sponsor University Chairs in Oil & Gas related subject areas.	<b>\$3,000,000</b> UGX 9,000,000,000
Provision of scholarships by IOCs for Ugandans to study at international universities (100 Ugandans gain Level 4 qualifications at a unit cost of \$30,000).	<b>\$3,000,000</b> UGX 9,000,000,000
Improve the quality of university lecturers through industry attachment and secondment programmes (20 lecturers benefit at a unit cost of \$10,000).	<b>\$200,000</b> UGX 600,000,000
<b>SUB-TOTAL</b>	<b>\$26,100,000</b> UGX 78,300,000,000
<b>GRAND TOTAL</b>	<b>\$119,730,000</b>

The total estimated cost of implementing the WSDSP between 2015 and 2025 is \$119,730,000. It is important to note that funding requirements are not uniform across the ten year implementation period. A combination of factors (including the need to invest in equipment and facilities in order to deliver international standard training and the requirement to rapidly address the short term demand for training at qualification Level 1 and 2) means that resource requirements peak significantly during the early years of the WSDSP. This pattern of resource requirements can be seen in Figure 4 below.

The cost of establishing an Enterprise Enhancement Centre (EEC) has not been included within this financial plan as the primary benefits of such a Centre fall outside of the remit of the WSDSP i.e. in providing support and advice to local suppliers and contractors to win work in the Oil & Gas and related sectors in Uganda. The Enterprise Enhancement Centre (EEC) will play an important role in the WSDSP in facilitating the transfer of trained workers into employment beyond Uganda's Oil & Gas sector but the EEC has not been costed in this plan as its establishment is being taken forward by Government and IOCs outside of the remit of the WSDSP.

**Figure 4: Total funding requirements for WSDSP implementation by year.**



Annual WSDSP funding requirements peak in 2016 and 2017 at around \$25 million before declining to \$18 million in 2018, \$10.5 million in 2020, \$6 million in 2022 and \$4.4 million in 2024.

This front-loaded resource profile has implications for the financing mechanisms to be used to fund the WSDSP. These mechanisms are presented and discussed in the section below.

## 6.2 Proposed Financing Mechanisms

Financing required for the WSDSP activities set out in Sections 3 and 4 fall into five main categories, namely:

1. **Training Costs:** The actual cost of delivering training courses. Such costs include: staff costs, administration, consumables, facilities maintenance, assessment costs etc. These are short-term 'current' costs.
2. **Equipment and Facilities Costs:** The initial investment required in buildings, facilities and equipment required for high quality training to take place. These are long-term 'hard' costs.
3. **Institutional Architecture and Coordination Mechanism Costs:** The cost of establishing and maintaining dedicated staffing within DoP to oversee implementation of the WSDSP and the cost of running government and stakeholder coordination structures.
4. **International Standards and Accreditation Costs:** The cost of agreeing on an appropriate set of international standards and of carrying out the process of assessing institutions to check that they meet the required standards. Investment in equipment and facilities and management and administration will be required in many cases to meet these standards but these costs are covered in categories 1 & 2. above as they directly benefit specific training institutions.
5. **Communications and related Costs:** The cost of carrying out communications campaigns to raise awareness of Oil & Gas opportunities and build understanding between IOCs, training providers, stakeholders and the public. This category also includes activities to build the knowledge base in Uganda regarding Oil & Gas skills and jobs, including activities to enhance the availability and use of labour market information.

These first two categories relate directly to the training activities which lie at the heart of the WSDSP and which represent the majority of the costs involved in implementing the plan. The three further categories of costs set out below all play a role in supporting and enabling this training to take place:



There are a number of financing mechanisms and funding sources which should be considered when looking at how best to fund activities in the WSDSP. These mechanisms and options include:

**Option 1: Recurrent funding provision from Ministry of Finance, Planning & Economic Development to MEMD/ DoP and other relevant line Ministries:** Budgetary allocations made available annually for activities linked to WSDSP implementation within the context of Uganda's National Development Plan 2 (NDP2). Such funding may be most appropriate for government related administrative costs e.g. staffing a dedicated Unit within DoP, developing and implementing a Monitoring Framework and operating institutional architecture and coordination mechanisms.

**Option 2: Establishment of a Petroleum Skills Development Fund:** Such a fund should be operated by allocating a percentage of revenue generated by IOCs, EPC contractors and/or sub-contractors to dedicated training activities. There are a number of international examples of such funds e.g. in Gabon where the petroleum training fund is based on a 2% tax of subcontractors' invoices or in the UK where an Industry Training Board is funded by a training levy of 1.5% payable on the total gross emoluments paid to employees and the total gross payments made in respect of labour-only contractors. In its initial years of operation, before significant revenues start to flow, the Petroleum Skills Development Fund can be supplemented by a straightforward levy on foreign workers. Such a levy would involve a single one-off payment of \$10,000 imposed on all Oil & Gas employers for every foreign worker brought into Uganda who is not a national of the East African Community.

International experience suggests that funds such as the Petroleum Skills Development Fund are most effective if tied to a clear strategic training plan, managed by an employer-owned or employer-responsive agency or body or are made available on a competitive basis to stimulate a (public and private) training market for international standard qualifications.

**Option 3: Activity specific financing from Development Partners such as the World Bank, GIZ and DFID:**

Development partners have their own specific areas of interest and project priorities related to Oil & Gas skills. They may therefore be prepared to fund specific sets of activities through grants where their priorities overlap with the WSDSP.

**Option 4: Upfront investment from IOCs on a 'cost recovery' or 'offset' basis:** IOCs may be prepared to invest in capital equipment, facilities etc. so long as these are these investment costs are taken into account and can be recovered and offset in the future. This may be one way of rapidly securing the financing required to invest in facilities and equipment. Detailed negotiations will be required to ensure that all parties (specifically IOCs and Government) are satisfied with the arrangements proposed.

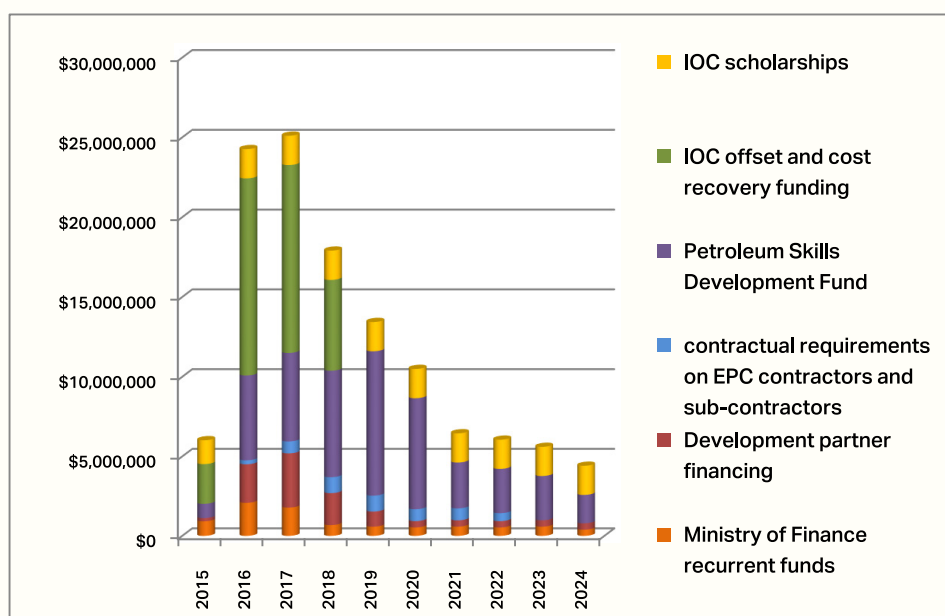
**Option 5: Funding from EPC Contractors and related Sub-Contractors:** EPC contractors and other sub-contractors will take on responsibility for training (particularly the soft short-term costs and on-the-job training) if such an obligation is built into their contractual requirements. They will need to adjust their contract price accordingly to account for this obligation so it is important that these negotiations take place as early as possible in the contracting process.

### 6.3 WSDSP Financing Framework

It is recommended that a combination of all five options outlined above is used to finance the WSDSP. Each of the different options has particular strengths which make them suited to specific sets of activities within the WSDSP. Utilising a range of funding mechanisms also helps to diversify risk and widen stakeholder engagement and ownership of the WSDSP.

Figure 4 and Table 19 provides details of the proposed volumes of funds required from each financing option over the period from 2015 to 2025.

**Figure 4: Annual funding required for WSDSP implementation by financing source**



**Table 19: Short. Medium and Long-Term funding required for WSDSP implementation by financing source.**

Financing Mechanism	Short-term funding (2015-2016)	Medium-term funding (2017-2019)	Long-term funding (2020-2025)	Total Funding 2015-2025	Funding as % of total funds required
Ministry of Finance, Planning & Economic Development recurrent funds	\$3,000,000	\$3,040,000	\$2,610,000	\$8,650,000	7%
Development Partner financing	\$2,625,000	\$6,375,000	\$2,000,000	\$11,000,000	9%
Contractual requirements on EPC contractors and sub-contractors	\$250,000	\$2,750,000	\$2,000,000	\$5,000,000	4%
Petroleum Skills Development Fund	\$6,226,000	\$21,309,000	\$17,230,000	\$44,765,000	37%
IOC offset and cost recovery funding	\$14,850,000	\$17,465,000		\$32,315,000	27%
IOC scholarships	\$3,333,334	\$5,500,001	\$9,166,665	\$18,000,000	15%
				<b>\$119,730,000</b>	<b>100%</b>

Details of each of these mechanisms and the activities required to secure financing are set out in the section below.

### 6.3.1 Securing recurrent funding commitments from the Ministry of Finance, Planning and Economic Development (MoFPED)

There are recurrent cost elements in the WSDSP implementation plan which will need to be financed through usual Government budgeting processes under the direction of the Ministry of Finance, Planning and Economic Development (MoFPED). These costs include the salary budget for the dedicated WSDSP Implementation Unit (which will need to be incorporated within MEMD/DOP's resource envelope), the costs of establishing and operating the National Content Steering Committee and Oil & Gas Training Providers' Forum, the cost of establishing and operating the National Talent Register,

the cost of contracting international standard setting and accreditation bodies to assess and certify institutions and the costs of implementing the Oil & Gas Skills Communications Strategy.

Given the competing priorities for scarce government resources and the uncertainties of relying on recurrent government funding (which may be reduced and delayed if the revenue generation options of government are unable to raise sufficient funds to meet budgeted demands) the amount of recurrent financing requested from MoFPED should be kept to a minimum. It is anticipated that the total amount required over the 2015 to 2025 period from Government's recurrent budget is \$8,650,000 (7% of the total funds required)- with a peak demand in 2016 of \$2,080,000.

**Table 20: Annual funding required for WSDSP implementation from Government's recurrent expenditure budget.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$0.92m	\$2.08m	\$1.78m	\$0.68m	\$0.58m	\$0.53m	\$0.58m	\$0.53m	\$0.58m	\$0.39m

If more recurrent funding than the estimated \$8,650,000 is made available then this would be helpful and would reduce pressures to raise revenues from other sources.

### 6.3.2 Discussing and agreeing financial and technical support from Development Partners.

There are a number of development partners who are interested in funding activities in Uganda related to Oil & Gas Skills Development. These organisations include DFID/GiZ, the World Bank and BTC. Whilst appreciating that these development partners will have their own specific aims and objectives, the WSDSP provides a strategic framework for collaboration and harmonisation of effort and resources. The National Content Steering Committee should therefore initiate a dialogue with these development partners to explore how resources can be harmonised so that they contribute towards successful delivery of the WSDSP.

It is anticipated that development partners will be able to contribute \$11,000,000 towards implementation of the WSDSP (9% of the total cost) between 2015 and 2025, with these funds peaking in 2017 at \$3,412,500. Possible activities which may be of interest to development partners include providing support to the Skills Standards Support Programme (particularly focusing on Level 1 qualifications) and in enabling support from a Technical Assistance and Fund Management Agency.

**Table 21: Annual funding required for WSDSP implementation from development partner support.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$0.2m	\$2.43m	\$3.41m	\$2.01m	\$0.95m	\$0.4m	\$0.4m	\$0.4m	\$0.4m	\$0.4m

These amounts are purely indicative and, if development partners require, there is potential for them to contribute significantly more than this to specific areas of the WSDSP if they so desire.

### 6.3.3 Building skills development and funding commitments into contracts for EPC contractors and sub-contractors.

Ensuring that contractual requirements on EPC contractors and international sub-contractors require investment in skills development is a critical strategy to ensure the successful implementation of the WSDSP. These contractual requirements should take the following forms:

- A contractual obligation to employ Ugandans who have achieved recognised qualifications which meet international standards agreed by the Training Standards Sub-Committee. The details of all Ugandans who have met these Standards will be contained within the National Talent Register. Contractors and sub-contractors will have to employ qualified Ugandan staff from this list and failure to comply with this regulation will lead to possible contract termination i.e. if a sub-contractor is found to be employing an international staff member when that position could be filled by a qualified Ugandan.

- A contractual obligation for contractors and sub-contractors operating in construction and related activities to employ one Ugandan apprentice for every \$1 million of contract value up to a maximum of 50 apprentices per single contract. The classroom-based training element of these apprenticeships will be delivered by training providers but the contractors and sub-contractors will have contractual responsibility to both employ the apprentice and pay for the cost of their training and accreditation.

It is anticipated that the training costs for the 1,000 Ugandan apprentices employed by contractor and sub-contractors through these obligations will come to \$5,000,000 (excluding wage costs which will also be paid for by contractors and sub-contractors) which is 4% of the total WSDSP funding requirements. These training costs will peak in 2018 and 2019 at approximately \$1,000,000 per annum.

**Table 22: Annual funding required for WSDSP implementation from contractual requirements for EPC contractors and sub-contractors.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	\$0.25m	\$0.75m	\$1m	\$1m	\$0.75m	\$0.75m	\$0.5m		

In addition to these contractual requirements, EPC contractors and sub-contractors will also have a responsibility to contribute towards the Petroleum Skills Development Fund (described in Section 5.3.4 below).

### 6.3.4 Establishing and operating a Petroleum Skills Development Fund.

The introduction of a Petroleum Skills Development Fund is a significant and necessary step in enabling successful implementation of the WSDSP. It is anticipated that the Petroleum Skills

*It is important to recognise that this obligation to employ Ugandans from the National Talent Register does not guarantee these Ugandans a continued job if they perform poorly and fail to follow the norms and regulations of their new employer. What it does guarantee is the opportunity of a job. Once these trained Ugandans have begun employment they will need to perform to an acceptable standard and face dismissal if they do not reach this standard.*

Development Fund will contribute \$44.8 million towards the WSDSP between 2015 and 2025, which represents 37% of the total cost of implementation.

The Petroleum Skills Development Fund will have its funds replenished by allocating a percentage of revenue generated by IOCs, EPC contractors and/or sub-contractors to dedicated training activities each year. All international employers operating in the Oil and Gas sector will have to pay an annual training levy of 2% payable on the total gross emoluments paid to employees and the total gross payments made in respect of labour-only contractors. The MoFPED, working in partnership with MEMD/DOP will have responsibility for designing and overseeing the mechanism for verifying and collecting these funds.

In its first five years of operation the Petroleum Skills Development Fund will be supplemented by a straightforward tax on foreign workers. Such a levy would involve a single one-off payment of \$10,000 imposed on all Oil & Gas employers for every foreign worker brought into Uganda who is not a national of the East African Community.

The Petroleum Skills Development Fund will be overseen by the National Content Steering Committee which will constitute a separate sub-committee under the leadership of an independent Chair respected by both Government and the international oil industry. The Petroleum Skills Development Fund will have its own dedicated bank account to maintain a clear link between revenues and funds raised from employers and funds allocated to training activities. Without this clear link international experience shows that employers will lose confidence that funds are being utilised effectively to address their specific skills needs.

The Petroleum Skills Development Fund will be used to finance the Skills Standards Support Programme (for qualification Levels 2, 3 and 4), the Labour Market Assessment and Training Fund and Oil & Gas Technician Training Fund. The sub-committee appointed to oversee the Petroleum Skills Development Fund will work closely with the Technical Assistance and Fund Management Agency contracted by MEMD/DoP to assess funding applications and allocate funds on a competitive basis to achieve maximum impact against a tightly defined set of criteria related to WSDSP priorities. The performance of individual institutions and effective contract management will be carried out by the Technical Assistance and Fund Management Agency with progress being reported regularly to the sub-committee and the National Content Steering Committee.

In addition to the funds raised through the payroll training levy and one-off tax on foreign workers, the Petroleum Skills Development Fund is also open to contributions from development partners or other agencies with an interest in pooling resources and contributing towards Oil & Gas skills development in Uganda.

It is anticipated that the Petroleum Skills Development Fund will contribute \$44.8 million towards WSDSP implementation with these resources peaking at \$9.07 million in 2019 before stabilising at between \$2.89 million and \$2.79 million from 2021 to 2023

**Table 23: Annual funding required for WSDSP implementation from the Petroleum Skills Development Fund.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$0.90m	\$5.33m	\$5.55m	\$6.69m	\$9.07m	\$6.98m	\$2.89m	\$2.79m	\$2.79m	\$1.79m

It is possible that once the Petroleum Skills Development Fund begins operating it will generate greater revenue streams than the amounts set out in the table above. If this is the case then these funds can be used to reduce the amounts required from other sources (such as Ministry of Finance recurrent funds and IOC offset and cost recovery funding) to implement the WSDSP.

### 6.3.5 Negotiating and agreeing IOC offset and cost recovery funding requirements to finance skills development.

WSDSP implementation requires significant up-front investment in facilities and equipment if Ugandan training providers are going to be able to deliver the international standard of training required for the Oil & Gas industry. In total the WSDSP makes provision for investment of \$42 million in improved facilities and equipment (35% of the total cost of WSDSP implementation). All this investment is scheduled to take place during the first half of the WSDSP implementation period i.e. up to 2020.

This resource profile is problematic as significant investment is required before significant oil operations are underway meaning that there is a gap where resources are required while the Petroleum Skills Development Fund is not yet well resourced.

In order to cover this financing gap and ensure that there is rapid investment in facilities and equipment (without which the WSDSP will not succeed) it is proposed that the Government of Uganda enters into offset and cost recovery funding negotiations with IOCs. Under these arrangements IOCs will provide upfront financing to purchase equipment and construct facilities where required. These financial commitments will be tied into future licensing and concession contracts and negotiated with the three IOCs already operating in Uganda. Upfront investment by IOCs will be recognised and 'offset' in terms of future payment obligations to the Government.

These kind of funding arrangements are a common feature of natural resource extraction projects in emerging markets, with the global value of offsets estimated to be in excess of \$75 billion in 2013.

The precise details of such offset arrangements will need to be agreed between the Government of Uganda and the IOCs. It is recommended that the Government seeks specialist advice and support during these negotiations so that the terms and conditions are fair and that the implications of the deals for future revenue streams are clearly understood and agreed by all parties.

It is anticipated that the amount of funding required for facilities and equipment through IOC offset and cost recovery funding in the WSDSP implementation plan is \$32,315,000 between

*Financial Times 9th October 2013*

2015 and 2018. This represents 27% of the total cost of WSDSP implementation. The anticipated funding required from offset arrangements peaks in 2016 and 2017 at \$12.35 million and \$11.78 million respectively.

**Table 24: Annual funding required for WSDSP implementation from IOC offset and cost recovery funding arrangements.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$2.5m	\$12.35m	\$11.78m	\$5.69m						

If funding from other sources (such as the Petroleum Skills Development Fund and development partner financing) is greater than anticipated then this should be used to reduce the WSDSP's reliance on IOC offset and cost recovery financing given that these alternative sources of funding do not have the implications on future revenue generation associated with offsets.

### 6.3.6 Agreeing IOC scholarship programmes

The three IOCs currently operating in Uganda already develop annual training plans which are submitted to MEMD/DoP for approval. These training plans will now be aligned with the WSDSP and will focus on the provision of scholarships (at Level 4 and Level 3) for Ugandans to study high quality, industry relevant qualifications overseas. These training programmes will be submitted annually to the National Content Steering Committee for approval and endorsement.

It is anticipated that these programmes will provide \$18,000,000 of funding towards WSDSP implementation between 2015 and 2025 (15% of the total financing required). These funds are modelled as remaining at a steady \$1,833,334 per annum throughout the WSDSP implementation period.

**Table 25: Annual funding required for WSDSP implementation from IOC Scholarship Programmes.**

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$1.5m	\$1.83m	\$1.83m	\$1.83m	\$1.83m	\$1.83m	\$1.83m	\$1.83m	\$1.83m	\$1.83m



### **6.3.7 Consider introducing a training loan scheme so that funds can be repaid over time and used to train more Ugandans in Oil & Gas related skills.**

The cost of providing international standard Oil & Gas relevant courses will be significantly greater than the unit cost of courses delivered by most Ugandan training institutions. This provides a serious entry barrier for the majority of Ugandans who may be either unable or unwilling to pay fees for Level 2, 3 and 4 qualifications delivered through the WSDSP implementation plan.

This inability or unwillingness to pay fees is why the WSDSP implementation plan and accompanying budget has been developed on the basis that the cost of training will need to be borne by the government or employers rather than individual learners.

However, while investment in education makes good sense from a policy perspective due to the high rates of return through increased productivity and positive externalities which contribute towards socio-economic development, it should not be overlooked that individuals gaining Level 2, 3 and 4 qualifications through the WSDSP stand to make significant personal gains through increased wages. Due to the arrangement in the WSDSP that Oil & Gas employers have a contractual obligation to employ all Ugandans who gain relevant internationally recognised qualifications and are featured on the National Talent Register, the risk to individuals that they will not secure increased wages through their training is relatively small.

It is therefore recommended that the Government of Uganda introduces a student loan type arrangement in order to recycle resources from employed Ugandans to fund greater investment in skills and training in future years. Under this arrangement, Government would fully fund the cost of training courses through the Skills Standards Support Programme, Labour Market Assessment & Training Fund and the Oil & Gas Technician Training Fund. Once trained and qualified individuals had been placed on the National Talent Register and secured full-time waged employment in the Oil & Gas and related sectors they will be required to pay back the cost of their training over a period of several years. These payments will be made through salary deductions through Oil & Gas employers to i.) increase the overall repayment rate rather than relying on individuals to notify government and commence the process of repaying themselves and ii.) ensure that repayments are only made by those individuals in steady waged employment who are earning over a certain income threshold. No interest will be charged on these repayments and individuals will only be expected to pay back the actual cost of their training course.

Resources collected through these monthly repayments will be channelled into the Petroleum Skills Development Fund so that the Government is able to finance more Oil & Gas related training courses. The financial benefits of this arrangement to the Government have not been modelled in the WSDSP implementation plan as there are a number of uncertainties as to when the scheme will be put in place and the time span required for repayments. If it is introduced then it will reduce the financial pressure on other sources of funding during the second half of WSDSP implementation i.e. from 2019 onwards.

### **6.3.8 Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for operation of the Petroleum Skills Development Fund to ensure sustainability and coherence of financing mechanisms.**

The 'Skilling Uganda' Strategic Plan for 2011-2020 makes provision for the establishment of a number of Sector Skills Councils (SSCs) including an SSC for the Oil & Gas sector. The proposed list of functions to be carried out by SSCs includes (i) identification and analysis of skill requirements in the economic sector; (ii) development of industry skills strategies and training plans to achieve priority goals; (iii) establishing occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF); (iv) evaluating performance in skills development; (v) regulation of public and private sector training providers; and (vi) promoting enterprise based training in the sector.

In other country contexts, for example in the UK, SSCs play an important role in funding employer-responsive training within their sector of operations, facilitating close relationships between employers and providers. The Government of Uganda should therefore consider whether the Oil & Gas SSC should take over responsibility for the operation and utilization of the Petroleum Skills Development Fund in the medium and long-term. This may be an effective way of institutionalizing and embedding this Fund within the Ugandan skills development landscape whilst also ensuring that the SSC has sufficient funds to sustain its operations and funding role.

The National Content Steering Committee should therefore work with MEMD/DOP, MoESTS, MoFPED, IOCs, employers and training providers to consider whether, when and how operation of the Petroleum Skills Development Fund should transition to the Oil & Gas SSC.



#### 6.4 Implementation Timetable for Financing and Funding Mechanism activities.

The implementation timetable for the Financing and Funding Mechanisms Activity Strand of the WSDSP is as follows.

**Table 26: Implementation Timetable for Financing and Funding Mechanisms.**

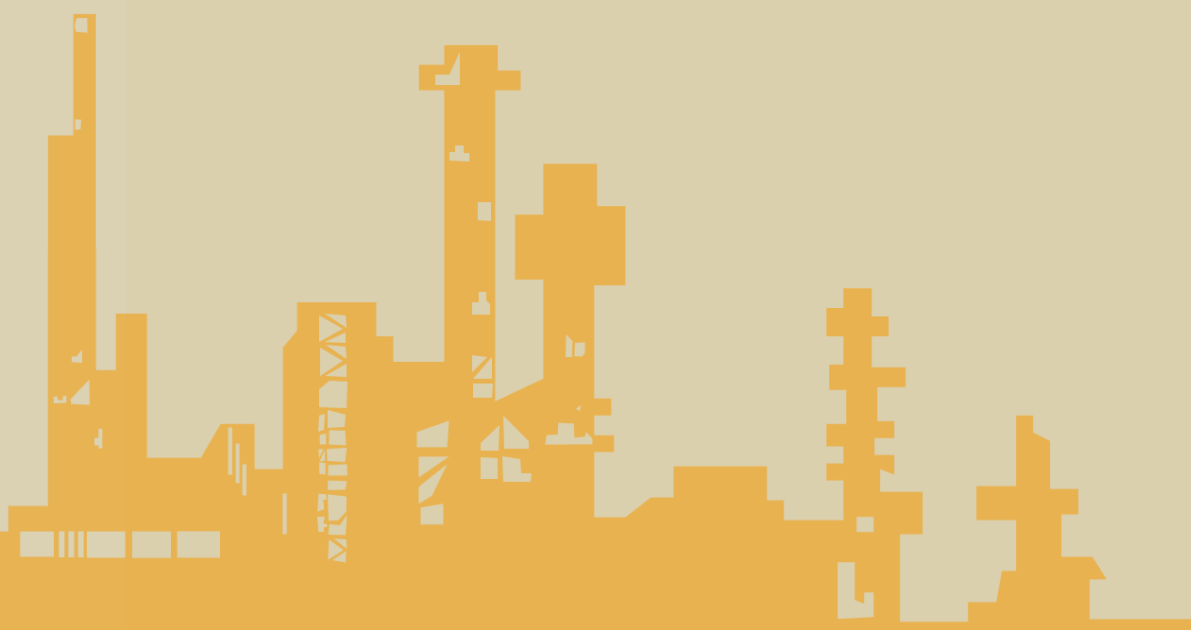
Activity	Lead Responsibility	Deadline
<b>Short-Term (0-2 years)</b>		
Securing recurrent funding commitments from the Ministry of Finance, Planning and Economic Development.	National Content Steering Committee, MoFPED, MEMD/DoP.	May 2015 onwards.
Discussing and agreeing financial and technical support from Development Partners.	National Content Steering Committee, MEMD/DoP, MoESTS, MoGLRD.	May 2015 onwards.
Building skills development and funding commitments into contracts for EPC contractors and sub-contractors.	National Content Steering Committee, MEMD/DoP, MoFPED.	May 2015 onwards
Establishing and operating a Petroleum Skills Development Fund.	National Content Steering Committee, MEMD/DoP, MoFPED, MoESTS.	May 2015 onwards
Negotiating and agreeing IOC offset and cost recovery funding requirements to finance skills development.	MEMD/DoP, MoFPED, IOCs	May 2015 onwards
Agreeing IOC scholarship programmes.	National Content Steering Committee, MEMD/DoP, MoESTS.	May 2015 onwards
<b>Medium-Term (3-5 years) &amp; Long-Term (6-10 years)</b>		
Consider introducing a training loan scheme so that funds can be repaid over time and used to train more Ugandans in Oil & Gas related skills.	National Content Steering Committee, MEMD/DoP, MoFPED, MoESTS.	2016 onwards.
Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for operation of the Petroleum Skills Development Fund to ensure sustainability and coherence of financing mechanisms.	National Content Steering Committee, MEMD/DoP, MoFPED, MoESTS	2017 onwards

# SECTION 7

---

## WSDSP Detailed Delivery Plan

The implementation timetable for the Financing and Funding Mechanisms Activity Strand of the WSDSP is as follows.



SHORT-TERM																								MEDIUM-TERM				LONG-TERM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
2015												2016				2017				2018				2019				2020				2021				2022				2023				2024																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
ACTIVITIES			RESPONSIBILITY			DEADLINE			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
1 INSTITUTIONAL ARCHITECTURE AND COORDINATION MECHANISMS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1.1			Constitute National Content Steering Committee and finalise Terms of Reference	MEMD/DoP	31 <sup>st</sup> May 2015																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

				SHORT-TERM												MEDIUM-TERM		LONG-TERM				
ACTIVITIES	RESPONSIBILITY	DEADLINE	2015						2016						2017	2018	2019	2020	2021	2022	2023	2024
			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3								
training institutions and members of the public																						
2.3	Invite bids from interested training institutions wishing to deliver training to agreed International Standards through an Oil & Gas Skills Support Programme	MEMD/DoP, MoESTS, Fund Management Agency	1st August 2015- invitation issued, 31 <sup>st</sup> October 2015- contracts awarded and signed																			
	Contract International Standard setting bodies to assess and certify institutions to verify that they meet agreed standards	MEMD/DoP, MoESTS, Fund Management Agency	June 2015 onwards																			
2.4	International Standard setting bodies and international training providers to work with the Government of Uganda to develop local capacity within DIT to assess whether training meets agreed International Standards	MEMD/DoP, MoESTS, DIT	June 2015 onwards																			
2.5	Work with East African petroleum producing nations to explore how a common set of Oil & Gas Training Standards can be introduced across the region	National Content Steering Committee, MEMD/DoP	July 2015 onwards																			
2.6	Conduct future rounds of invitations to tender through the Oil & Gas Skills Support Programme to expand the number of institutions in Uganda meeting agreed International Standards	MEMD/DoP, MoESTS, Oil & Gas Sector Council (SSC)	2018, 2020 and 2022																			
2.7																						

SHORT-TERM																				MEDIUM-TERM				LONG-TERM			
2015												2016															
ACTIVITIES		RESPONSIBILITY	DEADLINE	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4	2017	2018	2019	2020	2021	2022	2023	2024			
2.8	Periodically review agreed international Standards and update if necessary	Oil & Gas Sector Council (SSC)	Biannually from 2017																								
3	COMMUNICATIONS AND INFORMATION SHARING																										
	Hold a high profile event to launch the WSDSP with accompanying media communications	MEMD/DoP & National Content Steering Committee	May-15																								
3.1	Organise and implement a communications campaign centred on the Oil & Gas Skills Quality logo so that the Ugandan public are able to recognise high quality, industry relevant training which will help them to secure employment in Oil & Gas and related sectors.																										
3.2	Hold a series of awareness-raising Oil & Gas Skills Roadshows hosted by employers and training providers.	MEMD/DoP, MoESTS & UNBS	October 2015 to March 2016																								
3.3	Conduct an international promotional campaign utilising IOCs' networks and communications channels to raise awareness of opportunities in Uganda and encourage international training providers to bein working in the country.	MEMD/DoP, MoESTS, UGAPRIVI & IOCs	October 2015 to March 2016																								
3.4	Run an ongoing awareness raising campaign on Oil & Gas Skills through the Ugandan media	MEMD/DoP	August 2015 to December 2015																								
3.5		MEMD/DoP & MoESTS	March 2016 onwards																								

				SHORT-TERM												MEDIUM-TERM		LONG-TERM						
				2015						2016														
ACTIVITIES	RESPONSIBILITY	DEADLINE		April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4	2017	2018	2019	2020	2021	2022	2023	2024
3.6	Create a National Talent Register to i.) enhance understanding of the existing skills available in the labour market and ii.) formally record details of all Ugandans who have gained qualifications which meet the required Standards	July-15																						
	Create an Oil & Gas Providers Forum for all universities, institutions and training providers (public and private) in Uganda which are delivering training which meets the agreed Standards.																							
3.7	National Steering Committee, MEMD/DoP	Jan-16																						
3.8	Evaluate impact of Oil & Gas Communications Strategy and revise and update as appropriate	2018																						
	MEMD/DoP & MoESTS																							
3.9	National Steering Committee, MEMD/DoP, MoGLRD & designated service provider	ongoing from July 2015																						
	Continue to maintain and update National Talent Register																							
3.9	National Content Steering Committee, MEMD/DoP, MoGLRD & designated service provider	ongoing from July 2015																						
3.10	Continue to operate Oil & Gas Providers Forum	ongoing from February 2016																						
	National Steering Committee, MEMD/DoP																							
3.10	Commission and conduct targeted research	ongoing from 2017																						
3.11	Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for labour market, knowledge enhancing																							
	MEMD/DoP, MoESTS, IOCS, employers and training providers																							
3.12																								



[illegible]

	ACTIVITIES	RESPONSIBILITY	DEADLINE	SHORT-TERM												MEDIUM-TERM					LONG-TERM			
				2015												2016								
				April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4	2017	2018	2019	2020	2021	2022	2023	2024
	Certification Programme.																							
4.4	Work with employers, training providers and prospective employees to introduce a 'job guarantee' scheme to reduce the risks associated with paying for Health & Safety training and remove barriers to entry	National Steering Committee, MEMD/DoP, Technical Assistance Agency	From February 2016																					
4.5	Provide funding to enable training providers to conduct work readiness Traineeships and rapid English language assessment and targeted short training courses where necessary as part of a Traineeship Training & English Language Assessment Programme	National Steering Committee, MEMD/DoP, Technical Assistance and Fund Management Agency	Call for Proposals - February 2016, Contracts signed- June 2016																					
4.6	Continue to maintain and update District Labour Office databases of interested individuals	MoGLRD	ongoing from August 2015																					
4.7	Review progress with provision of Health & Safety Training and targeted English language assessment and training and adapt Strategy & Plan to address gaps as necessary	National Steering Committee, MEMD/DoP	2018																					
5	ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 2 (CRAFTS & TRADES)																							

				SHORT-TERM												MEDIUM-TERM					LONG-TERM				
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									
				2015												2016									

SHORT-TERM																								MEDIUM-TERM					LONG-TERM				
ACTIVITIES Programme activity 2.6)	RESPONSIBILITY	DEADLINE	2015												2016				2017	2018	2019	2020	2021	2022	2023	2024							
			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4																		
5.7	Establish a Welding Centre of Excellence	National Steering Committee, MEMD/DoP, Technical Assistance and Fund Management Agency	September 2016 onwards																														
5.8	Improve the quality of trainers through industry attachments and secondment programmes	National Steering Committee, MEMD/DoP, Training Providers Forum, MoESTS	September 2016 onwards																														
5.9	Review progress against Level 2 training objectives and take additional action to expand provision if required	National Steering Committee, MEMD/DoP	2019																														
6	ACTIVITIES TO ADDRESS CONSTRAINTS AT QUALIFICATIONS LEVEL 3 (TECHNICIANS)																																
	Agree Standards and communicate opportunities (activity already covered by 2.1, 2.2, 3.2, 3.3 & 3.5)	MEMD/DoP, MoESTS, UNBS & IOCs	July 2015 onwards																														
6.1	Expand institutional provision of Logistics & Supply Chain Management Level 3 training through partnerships with international training providers through a Skills Standards Support Programme (also activity 2.3)	MEMD/DoP, Fund Management Agency	1st August 2015- invitation issued, 31st October 2015- contracts awarded and signed																														

	ACTIVITIES	RESPONSIBILITY	DEADLINE	SHORT-TERM												MEDIUM-TERM					LONG-TERM			
				2015												2016								
				April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4	2017	2018	2019	2020	2021	2022	2023	2024
6.3	Officially adopt two-phase approach to technician level training combining classroom based learning and on-the-job training	Training Standards Sub-Committee, MoESTS, IOCs	Sep-15																					
6.4	Support UPIK to implement its 2014-2019 Institutional Development Plan provided that it stays on track against a number of Key Performance Indicators (KPIs)	National Steering Committee, MoESTS, MEMD/DoP	Ongoing from July 2015																					
6.5	UPIK to become an OPITO registered training provider as a key element in its strategy to become a regional Centre of Oil & Gas Excellence	National Steering Committee, MoESTS, UPIK, OPITO	February 2016 onwards																					
6.6	Formalise links between UPIK and IOCs to increase industry engagement and enhance the quality and relevance of training	UPIK, IOCs	ongoing from February 2016																					
6.7	Provide support to UTC Kichwamba to enable the delivery of Level 3 electrical and mechanical engineering training which meets industry standards	National Steering Committee, MoESTS	Ongoing from July 2015																					
6.8	IOCs to partner with international training providers to deliver high quality 2 phase technician level training to supplement UPIK's supply of trained technicians	National Steering Committee, IOCs	2017 onwards																					

SHORT-TERM																	MEDIUM-TERM				LONG-TERM			
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
2015																	2016							
201																								



SHORT-TERM														MEDIUM-TERM				LONG-TERM					
2015														2016									
			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3	Q4	2017	2018	2019	2020	2021	2022	2023	2024
ACTIVITIES	RESPONSIBILITY	DEADLINE																					
7.5	IOCs to sponsor University Chairs in Oil & Gas related subject areas	2017 onwards																					
7.6	Improve the quality of university tutors and lecturers through industry attachments and secondment programmes	2017 onwards																					
7.7	Oil & Gas employers to develop career paths for Ugandan graduates including the provision of international secondments and immersion programmes	2017 onwards																					
8 ESTABLISHMENT OF FUNDING AND FINANCING MECHANISMS																							
8.1	Securing recurrent funding commitments from the Ministry of Finance, Planning and Economic Development	May 2015 onwards																					
8.2	Discussing and agreeing financial and technical support from Development Partners	May 2015 onwards																					
8.3	Building skills development and funding commitments into contracts for EPC contractors and sub-contractors	May 2015 onwards																					
8.4	Establishing and operating a Petroleum Skills Development Fund	May 2015 onwards																					
8.5	Negotiating and agreeing IOC offset and cost recovery funding requirements	May 2015 onwards																					

SHORT-TERM															MEDIUM-TERM				LONG-TERM						
ACTIVITIES to finance development	RESPONSIBILITY	DEADLINE	2015												2017	2018	2019	2020	2021	2022	2023	2024			
			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Q1	Q2	Q3									Q4		
8.6	Agreeing scholarship programmes IOC	National Steering Committee, MEMD/DoP, MoESTS, IOCs	May 2015 onwards																						
	Consider introducing a training loan scheme so that funds can be repaid over time and used to train more Ugandans in Oil & Gas related skills	National Steering Committee, MEMD/DoP, MoFPED, MoESTS	2016 onwards																						
8.7	Consider how the Oil & Gas Sector Skills Council (SSC) can take on long-term responsibility for the operation of the Petroleum Skills Development Fund to ensure sustainability and coherence of financing mechanisms	National Steering Committee, MEMD/DoP, MoFPED, MoESTS	2017 onwards																						
8.8																									

WORKFORCE SKILLS DEVELOPMENT STRATEGY AND PLAN FOR

THE OIL & GAS SUB - SECTOR IN UGANDA

# SECTION 8

---

Monitoring Progress and Measuring Success.



The National Content Steering Committee is responsible for overseeing implementation of the WSDSP. In order to ensure that implementation is on track, the National Content Steering Committee will oversee a regular performance monitoring regime focused on gathering and using data on progress against a limited number of key priorities.

The WSDSP Oversight Unit in MEMD/DoP and the Technical Assistance and Fund Management Agency are responsible for developing and implementing the WSDSP's monitoring framework. This framework will be based around the 8 specific WSDSP objectives and will rely on information submitted by:

**Training Providers:** All recipients of WSDSP funds through the Skills Standards Support Programme, Labour Market Assessment & Training Fund, Oil & Gas Technician Training Fund, Health & Safety Certification Programme, English Language Assessment Programme, Traineeship Training Programme and Labour Market Assessment & Training Programme will be contractually required to submit one page monthly progress reports through the Technical Assistance and Fund Management Agency. These reports will provide information on i.) progress against required indicators showing that an institution has reached internal standards; ii.) the number of Ugandans registered on training courses; iii.) the number of Ugandans assessed against international standards and iv.) the number of Ugandans achieving qualifications which meet international standards.

**Employers:** All employers listed as working in the Oil & Gas and related fields will be required to report to the National Content Steering Committee as to how many Ugandans they have employed- including the specific number of people recruited from the National Talent Register. Employers offering apprenticeship training, scholarships and on-the-job training will be required to report progress on these activities on a monthly basis using a simple one-page reporting format and submit this information to the WSDSP Oversight Unit.

**Service Providers and Line Ministries:** Various service providers will be contracted to deliver aspects of the WSDSP e.g.

the agency recruited to operate the National Talent Register and the agency recruited to deliver the Oil & Gas Skills Communications Strategy. These service providers will have a contractual obligation to report on their activities on a monthly basis to the relevant line ministry (the MoGLRD in the case of the National Talent Register provider). These reports will be collated by the WSDSP Oversight Unit and submitted on to the National Content Steering Committee.

The WSDSP Oversight Unit will present concise monthly progress reports to the National Content Steering Committee (submitted electronically and virtually during those months when the Committee is not meeting physically) using a 'traffic light' rating system.

By collecting information directly from training providers (through their contractual commitments under the various funding programmes) and from the National Talent Register, the WSDSP Oversight Unit is able to obtain what should be identical data from two different sources. This aids triangulation and verification with any discrepancies between the two data sets being investigated to help ensure accuracy.

The National Content Steering Committee will discuss these reports and take remedial action where necessary, including calling any providers, employers or stakeholders whose performance is a cause for concern to appear before the Committee and explain how they intend to get performance back on track.

In addition to the monthly progress reports (which are intended for internal use) the WSDSP Oversight Unit will also oversee production of an Annual WSDSP Implementation Progress Report. This Annual Report will be made available to the general public once it has been formally approved and accepted by the National Content Steering Committee.

An initial high level monitoring plan for the WSDSP is presented in the table overleaf. This will be worked up in greater detail by the WSDSP Oversight Unit and Technical Assistance and Fund Management Agency once these two bodies are in place.

**Table 27 WSDSP High Level Monitoring Framework**

Key Performance Indicator	Means of Verification	Frequency of collection	Responsibility
<b>Objective 1 Enhance coordination and joint working between Government, International Oil Companies, Training Providers and other stakeholders</b>			
1.1 National Content Steering Committee established and operational, meeting at least six times per year between 2015 and 2025.	Meeting minutes from Steering Committee meetings.	Bi-monthly	WSDSP Oversight Unit
1.2 At least 80% of consulted stakeholders believe that coordination and joint working is 'good' or 'very good' in annual survey.	Annual stakeholder opinion survey.	Annual	Technical Assistance and Fund Management Agency
1.3 At least 95% of activities in the WSDSP are implemented as per work plan each year.	Monthly and annual WSDSP implementation progress reports.	Monthly, Annually.	WSDSP Oversight Unit & Technical Assistance and Fund Management Agency
<b>Objective 2 Ensure that all Oil &amp; Gas related skills training within Uganda is accredited and meets a pre-agreed set of international quality standards.</b>			
2.1 Standards agreed and communicated for all 35 prioritised Occupational Areas/ Qualifications Levels by the end of 2015.	Training Standards Sub-Committee memorandum and circular.	One off-immediately following meeting to agree Standards.	Training Standards Sub-Committee
2.2 Standards reviewed and updated every two years through until 2025.	Memoranda and circulars from Training Standards Sub-Committee/ Oil & Gas SSC.	Biannually	Training Standards Sub-Committee/ Oil & Gas SSC.
2.3 At least 20 Ugandan registered training providers deliver qualifications which meet agreed Standards by 2025.	Training Provider records, National Talent Register.	Monthly	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
<b>Objective 3 Enhance communications and information sharing on Oil &amp; Gas Skills requirements including the development of improved Labour Market Information relevant to the needs of the sector.</b>			
3.1 Oil & Gas Communications Strategy implemented with 40% of Ugandan citizens able to recognise the Oil & Gas Skills Quality logo by 2017.	Regular reports on communications strategy progress / Annual Oil & Gas Opinion Survey.	Monthly/Annually	Agency contracted to deliver Communications Strategy/ WSDSP Oversight Unit.
3.2 Oil & Gas Training Providers Forum is established and operational, meeting at least four times each year between 2016 and 2025.	Meeting minutes from Training Providers Forum.	Quarterly.	WSDSP Oversight Unit.
3.3 At least 10,000 Ugandans have their details registered with the National Talent Register and Enterprise Enhancement Centre by 2025.	Monthly reports from National Talent Register.	Monthly	Supplier contracted to oversee National Talent Register/ MoGLRD



**Objective 4 Ensure that all additional Level 1 jobs created in Oil and Gas and related sectors go to Ugandans between 2015 and 2025.**

4.1 7,000 Ugandans obtain relevant Health & Safety certification by 2019.	Contractual reports from providers benefitting from the Health & Safety Certification Programme/ National Talent Register.	Monthly.	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
4.2 3,000 Ugandans go through rapid English Language assessments by 2019.	Contractual reports from providers benefitting from the English Language Assessment Programme / National Talent Register.	Monthly.	Technical Assistance and Fund Management Agency / Supplier contracted to oversee National Talent Register.
4.3 2,500 Ugandans obtain Traineeship qualifications by 2020.	Contractual reports from providers benefitting from the Traineeship Training Programme/ National Talent Register.	Monthly.	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.

**Objective 5 Ensure that 10,000 Ugandans secure an industry relevant and recognised Level 2 qualification by 2025.**

5.1 5,000 Ugandans obtain relevant Level 2 qualifications by 2025 through institutions which have participated in the Skills Standards Support Programme.	Contractual reports from providers benefitting from the Skills Standards Support Programme / National Talent Register	Monthly	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
5.2 Welding Centre of Excellence established and operational by 2017.	Reports from provider selected to become the Ugandan Centre of Welding Excellence.	Monthly.	Technical Assistance and Fund Management Agency.
5.3 4,000 Ugandans obtain relevant Level 2 qualifications by 2020 through the Labour Market Assessment & Training Fund.	Contractual reports from providers benefitting from the Labour Market Assessment & Training Fund/ National Talent Register.	Monthly.	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
5.4 1,000 Ugandans graduate from Level 2 Apprenticeships programmes delivered by training providers and Oil & Gas employers by 2022.	Reports from training providers and employers.	Monthly	WSDSP Oversight Unit
5.5 1,000 Ugandan trainers benefit from industry attachment and secondment programmes by 2021.	Reports from training providers and employers.	Quarterly	WSDSP Oversight Unit.

**Objective 6 Ensure that 2,000 Ugandans secure an industry relevant and recognised Level 3 qualification by 2025.**

6.1 1,050 Ugandans obtain relevant Level 3 qualifications from UPIK by 2025.	Reports from UPIK/National Talent Register	Monthly	MoESTS/ WSDSP Oversight Unit / Supplier contracted to oversee National Talent Register.
MoESTS/ WSDSP Oversight Unit/ Supplier contracted to oversee National Talent Register.	Reports from UTC Kichwamba/ National Talent Register.	Monthly	MoESTS/ WSDSP Oversight Unit/ Supplier contracted to oversee National Talent Register

6.3 300 Ugandans gain relevant Level 3 Logistics & Supply Chain Management qualifications by 2021.	Contractual reports from providers benefitting from the Skills Standards Support Programme / National Talent Register.	Monthly	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
6.4 400 Ugandans gain relevant Level 3 qualifications through IOC overseas scholarships by 2025.	IOCs	Quarterly	WSDSP Oversight Unit
<b>Objective 7 Ensure that 1,000 Ugandans secure an industry relevant and recognised Level 4 qualification by 2025.</b>			
7.1 900 Ugandans gain relevant Level 4 qualifications by 2025 through universities supported by the Skills Standards Support Programme.	Contractual reports from universities benefitting from the Skills Standards Support Programme/ National Talent Register.	Monthly	Technical Assistance and Fund Management Agency/ Supplier contracted to oversee National Talent Register.
7.2 Petroleum Centre of Excellence established and operational by 2017.	Reports from university selected to host the Petroleum Centre of Excellence	Monthly	Technical Assistance and Fund Management Agency
7.3 University Chairs sponsored in at least two relevant universities and disciplines by 2018.	Reports from selected universities	Monthly	WSDSP Oversight Unit
7.4 100 Ugandans gain relevant Level 4 qualification through IOC overseas scholarships by 2025.	IOCs	Quarterly	WSDSP Oversight Unit
7.5 20 Ugandan lecturers benefit from industry attachment and secondment programmes by 2020.	Reports from universities and employers	Quarterly	WSDSP Oversight Unit
<b>Objective 8 Ensure that adequate funding and financing mechanisms are put in place to achieve objectives 1 to 7 of the WSDSP.</b>			
8.1 Petroleum Skills Development Fund established and operational by 2016.	Progress reports from MEMD/DOP and MoFPED	Monthly	WSDSP Oversight Unit
8.2 IOC offset and cost recovery funding requirements for facilities and equipment agreed with employers by 2016.	Progress reports from MEMD/DOP and MoFPED	Monthly	WSDSP Oversight Unit
8.3 Recurrent funding commitments secured from MoFPED on an annual basis from 2015 onwards.	Progress reports from MEMD/DOP and MoFPED	Monthly	WSDSP Oversight Unit
8.4 Contractual requirements for skills development funding for international employers agreed and implemented from 2015 onwards.	Progress reports from MEMD/DOP and MoFPED	Monthly	WSDSP Oversight Unit





Printed by



In Partnership with



Ministry Of Education And Sports

Launched 15th November, 2018

